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# LEGAL AND REGULATORY FRAMEWORKS GOVERNING THE GROWING, PACKING AND HANDLING OF FRESH PRODUCE IN COUNTRIES EXPORTING TO THE U.S.



CANADA CHILE CHINA MEXICO PERU

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THE U.S. DEPARTMENT OF AGRICULTURE (USDA) HAS REPORTED THAT THE VALUE OF IMPORTS OF FRESH VEGETABLES GREW RAPIDLY IN THE 1990s, AND THEN CLIMBED FROM JUST OVER \$2 BILLION IN 1998 TO \$4.1 BILLION IN 2007.

The Produce Safety Project (PSP), supported by The Pew Charitable Trusts, advocates for improvements in the U.S. Food and Drug Administration's (FDA) oversight of domestic and imported produce through the adoption of mandatory, enforceable safety standards. To provide policymakers with information on the legal and regulatory frameworks governing the growing, packing and handling of fresh produce in countries exporting to the U.S., PSP commissioned a review of those systems in five of the U.S.'s largest trading partners. The review was conducted by Monachus Consulting, of Ottawa, Canada, and its principal author is Albert Chambers, Monachus, president.<sup>1</sup>

Each review covers:

- Produce exports to the United States;
- A national food control system (e.g. legislation, competent authorities, etc.);
- Domestic food safety regulatory requirements for fresh produce production, packing and handling;
- Export requirements for fresh produce production, packing and handling (if different from the domestic requirements); and,
- The role and scope of any significant private sector food safety standards and/or schemes for fresh fruits and vegetables exports.

## OVERVIEW

### U.S. Imports of Fresh Produce

Over the past 20 years, U.S. imports of fresh produce have grown significantly. The U.S. Department of Agriculture (USDA)<sup>2</sup> has reported that the value of imports of fresh vegetables grew rapidly in the 1990s, and then climbed from just over \$2 billion in 1998 to \$4.1 billion in 2007. Fresh fruit imports more than doubled, increasing from \$3.9 billion to just over \$8.9 billion in the same period. In 2009, the United States imported \$11.5 billion of fresh produce from 96 countries<sup>3</sup>. In fresh vegetables, the NAFTA trading partners are the leading sources, with Mexico's share representing about 70 percent of the total and Canada's between 15 and 20 percent on average. Fresh fruit imports are sourced primarily from Mexico (29 percent), Chile (26 percent), and Costa Rica, Guatemala and Ecuador, which together accounted for more than 22 percent of the total. Other fruit imports come from other Southern Hemisphere countries such as Argentina, Brazil, Australia, New Zealand and South Africa, as well as from Asia.<sup>4</sup>

Fresh fruit imports as a share of domestic consumption rose from 35 percent in 1990 to nearly 50 percent during the 2006-2008 period. More than 50 percent of these imports were bananas, which are now sold year-round and are the most popular fruit consumed in the U.S. Non-banana fresh fruit imports rose from 12 percent of domestic consumption in 1990 to more than 29 percent during the latter period.<sup>5</sup> Fresh vegetable imports, in terms of market share, have changed much less dramatically. The Produce Marketing Association (PMA) has calculated, based on USDA data, that vegetable imports' share stood at 15.8 percent in 1998, then dipped to 13.8 percent in 2000 before starting a steady increase through the early 2000s.<sup>6</sup> USDA estimates that, in 2008, imports accounted for 20 percent of U.S. fresh vegetable consumption<sup>7</sup>, a gain of about 27 percent over 1998 and 45 percent over 2000.

1 The Produce Safety Project is responsible for the contents of this report. The report was reviewed by PSP advisors Douglas Archer and Paul Allwood, as well as Ricardo Molins, director of agricultural health and food safety of the Inter-American Institute for Cooperation on Agriculture. PSP thanks the reviewers for their comments. The report does not necessarily reflect the views of the reviewers or of The Pew Charitable Trusts.

2 Brooks et al. (2009)

3 US Department of Commerce data

4 Huang et al. (2007)

5 Fruit and Tree Nuts: Trade, USDA ERS Briefing Room, accessed May 16, 2010, at [www.ers.usda.gov/Briefing/FruitandTreeNuts/trade.htm](http://www.ers.usda.gov/Briefing/FruitandTreeNuts/trade.htm)

6 PMA (2008)

7 Vegetables and Melons: Trade, USDA ERS Briefing Room, accessed May 16, 2010, at [www.ers.usda.gov/Briefing/Vegetables/trade.htm](http://www.ers.usda.gov/Briefing/Vegetables/trade.htm)

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PMA's analysis of 2005 import data indicates that they are concentrated in certain key products. In vegetables, those products with more than a 25 percent share of the U.S. market included: artichokes (57 percent); asparagus (63 percent); cucumbers (48 percent); eggplant (42 percent); garlic (43 percent); onions (49 percent); bell peppers (31 percent); squash (38 percent); and tomatoes (35 percent). For fruit, they included: avocados (51 percent); bananas (100 percent); blueberries (33 percent); cantaloupes (30 percent); cranberries (71 percent); table grapes (40 percent); honeydew (28 percent); kiwis (55 percent); limes (100 percent); papaya (89 percent); pineapples (75 percent); plantains (100 percent); raspberries (36 percent); and tangerines (25 percent).<sup>8</sup>

A number of factors have influenced this increase in imports, factors that in several instances affect each other:

- **Population increase:** The U.S. population in the period 1988 to 2008 has increased by 25 percent, from 244.5 million to 305.8 million.
- **Consumer demand:** U.S. consumers are purchasing more fresh fruits and vegetables, up from 277.6 pounds per capita, retail weight, in 1988 to 293.8 pounds in 2008. This is in part driven by lifestyle changes related to an increased awareness about the benefits of eating fresh products, the availability of a much wider range of products and changes in the ethnic composition of the American population.
- **Seasonality:** The globalization of supply has for the most part eliminated seasonality as a consumer consideration – the staples and even more exotic products are available in most retailers all year long.
- **Market access:** The U.S. has entered into a number of bilateral and multilateral trade agreements starting with the Canada-U.S. Trade Agreement (CUSTA - 1985) and following through with the World Trade Agreement (WTO - 1994), the North American Trade Agreement (Canada, Mexico - 1995) and agreements with Australia (2004), Chile (2004), Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and the Dominican Republic (2005) and Peru (2007). These have either eliminated or significantly reduced tariffs on fresh produce.
- **Phytosanitary agreements:** In complementary initiatives, the U.S. and its trading partners (e.g. Mexico, Peru, etc.) have jointly recognized new initiatives by exporting countries (or internal regions) to control pests and diseases that pose a danger to U.S. production.
- **Technological developments:** Advances in packaging and shipping technologies have reduced quality issues and improved customer acceptability
- **Transportation:** Fresh produce exporters and importers have made significant investments in storage and handling facilities that permit them to take advantage of increased access to air cargo capacity or make significant investments in storage and ocean shipping, new sea shipping capacity, etc.
- **Foreign exchange values:** For most of this period, the relatively stronger U.S. dollar vis-à-vis currencies in Mexico, Canada and elsewhere provided a comparative advantage for exporters.

#### Selection of Countries for Case Studies:

With fresh fruits and vegetables sourced from so many countries, there was an obvious need to limit the scope of the review. The rankings prepared by USDA for previous years (2007, 2008 and 2009) were considered and a selection was made from the top 10. The countries chosen were Mexico (No. 1 in both fresh fruits and vegetables), Canada (No. 2 in vegetables and No. 6 in fruits), Chile (No. 2 in fruits), Peru (No. 3 in vegetables) and China (No. 4 in vegetables). Countries that ranked higher as a source of fruit imports, such as Costa Rica, Guatemala and Ecuador, were not included, because a significant volume of their exports is in bananas.

<sup>8</sup> PMA (2008)



### COMPONENTS OF A MODERN FOOD SAFETY REGIME

Governments have, over this same 20-year period (1990 – 2010), continued in the multilateral forums to set out common international expectations for food safety systems. For example, in their 2003 joint publication, *Assuring Food Safety and Quality: Guidelines for Strengthening National Food Control Systems*<sup>9</sup>, the Food and Agriculture Organization (FAO) and the World Health Organization (WHO) “provide information for government agencies to assist in the development of national food control systems and to promote effective collaboration between all sectors involved in the management and control of food safety and quality.” These guidelines set out the key characteristics of a food safety control system, using the concepts of “building blocks” and “principles.” The two agencies also make suggestions as to how these building blocks can be structured and how the principles can be realized.

The building blocks identified are:

- Food law and regulations;
- Food control management;
- Inspection services;
- Laboratory services (food monitoring and epidemiological data); and,
- Information, education, communication and training.

The WHO/FAO principles identified include, inter alia:

- Maximizing risk reduction by applying the principle of prevention throughout the food chain;
- Addressing the farm-to-table continuum;
- Establishing emergency procedures (e.g. recall);
- Developing science-based food control strategies;
- Establishing priorities based on risk assessment and management;
- Establishing holistic, integrated initiatives; and,
- Recognizing “shared responsibility.”

The Codex Alimentarius Commission<sup>10</sup> has also devoted considerable effort to establishing guidelines with respect to government requirements for import and export regimes and the recognition of equivalence. This work includes, inter alia:

- *Principles for Food Import and Export Inspection and Certification - CAC/GL 20 -1995;*
- *Guidelines for the Design, Operation, Assessment and Accreditation of Food Import and Export Inspection and Certification Systems - CAC/GL 26- 1997;*
- *Guidelines for the Development of Equivalence Agreements Regarding Food Import and Export Inspection and Certification Systems - CAC/GL 34 -1999;*
- *Guidelines on the Judgment of Equivalence of Sanitary Measures Associated with Food Inspection and Certification Systems - CAC/GL 53- 2003;*
- *Code of Hygienic Practice for Fresh Fruits and Vegetables - CAC/RCP 53-2003; and,*
- *Recommended International Code of Practice - General Principles of Food Hygiene – CAC/RCP 1-2003.*

These international documents lay out frameworks, provide definitions and recommend processes that governments may use to guide their activities in establishing systems and judging equivalence. They were used as the basis for selecting the components of a food safety regime to be described in this study.

<sup>9</sup> [www.who.int/foodsafety/publications/fs\\_management/guidelines\\_foodcontrol/en/index.html](http://www.who.int/foodsafety/publications/fs_management/guidelines_foodcontrol/en/index.html)

<sup>10</sup> [www.codexalimentarius.net/web/index\\_en.jsp](http://www.codexalimentarius.net/web/index_en.jsp)

IN CANADA, THERE WERE MANDATORY REQUIREMENTS FOR HACCP IN FISH AND SEAFOOD PLANTS (1992) AND THE ESTABLISHMENT OF A NEW SINGLE ENFORCEMENT AGENCY – THE CANADIAN FOOD INSPECTION AGENCY (CFIA) – FOR ALL FOOD SAFETY, LABELING AND RELATED MATTERS (1997).

## NATIONAL FOOD SAFETY REGIMES

### Food Safety Laws

With the exception of Canada and the United States, the countries reviewed have recently updated their food safety legislation as part of what can be considered the “second wave” of global food safety modernization.

The first wave of modernization occurred in the 1990s when governments responded to a series of food safety incidents, primarily in animal products (e.g. eggs, poultry, ground beef, fish, seafood, etc.), with new legislative and regulatory requirements. In the United States, for example, the response was mandatory requirements for Hazard Analysis and Critical Control Points (HACCP) in meat and poultry processing plants as a result of the “mega-reg” initiative (1996). In Canada, there were mandatory requirements for HACCP in fish and seafood plants (1992) and the establishment of a new single enforcement agency – the Canadian Food Inspection Agency (CFIA) – for all food safety, labeling and related matters (1997). Other countries included in this study also revised their regulatory regimes. Chile, for example, rewrote its Food Health Regulation (*Reglamento Sanitario de los Alimentos DTO. N° 977/96*) in 1996 to set out the health conditions that must be adhered to in the production, importation, processing, packaging, storage, distribution and sale of food for human use, in order to protect the health and nutrition of the population and ensure the supply of quality and safe products. China also introduced some reforms in this period: in particular, it began the updating of its regulations concerning pesticides and other plant protection products.

The second, and more comprehensive, wave of modernization began in Europe with the publication by the European Commission of its white paper on food safety in 2000 and the passage of its new Food Law, with an implementation date of January 2006. This wave became more widespread as the decade proceeded. It has been characterized by a revision of basic food safety legislation and regulations to enshrine industry’s responsibility to have in place food safety management systems based on HACCP beyond the farm gate.

By 2005, Chile had adopted a new food safety approach<sup>11</sup>, based on the concepts outlined in the WHO/FAO guide and on best practices from other countries, which include:

- Harmonization of national standards with those of the Codex Alimentarius Commission as a means of protecting the health of the population and facilitating trade through mutual recognition and the reduction of barriers;
- Management of emerging food safety risks using risk assessment, management and communication approaches;
- Improving surveillance;
- Adopting a comprehensive and integrated, food chain approach;
- Proposing the establishment of a new food safety authority – Agencia Chilena para la Inocuidad Alimentaria (ACHIPIA)<sup>12</sup> – modeled on those established in other countries (including Canada);
- Developing national traceability requirements; and,
- Improving consumer confidence and knowledge about food safety.

As will be discussed later, this process of modernization announced by the Chilean government has not yet been completed.

<sup>11</sup> <ftp://ftp.fao.org/docrep/fao/meeting/010/af189s.pdf>

<sup>12</sup> Originally named “la Autoridad Chilena de Inocuidad de los Alimentos (ACHIA)” and later “Agencia Chilena para la Inocuidad Alimentaria,” ACHIPIA – Web site: [www.achipia.cl](http://www.achipia.cl)

IN PERU, THE FOOD SAFETY LAWS AND REGULATIONS WERE ALSO REVISED IN 2008. THE NEW LAW INVOLVES AN INTEGRATED, FARM-TO-FORK APPROACH TO FOOD SAFETY AND IS BASED ON 10 PRINCIPLES.

China also initiated a major revision of its food safety laws. First to be completed was a new law on Agricultural Product Quality Safety<sup>13</sup>, which was adopted by the National People's Congress in April 2006. This was followed, after several years of consideration, by a new Food Safety Law<sup>14</sup>, which was adopted by the same body in February 2009. The two laws became effective in November 2006 and June 2009, respectively.

The new Food Safety Law sets out basic standards for safe food and expectations for food businesses. The latter include, inter alia, requirements that food businesses:

- Be licensed;
- Establish and improve food safety management systems;
- Strengthen the training of employees with respect to food safety knowledge;
- Provide full-time or part-time food safety managers;
- Do a good job in inspecting the food that it produces;
- Implement prerequisite programs that cover premises, equipment, sanitation, personnel hygiene, etc.;
- Establish and implement “handler health management systems” that involve annual health examinations and prohibit contact with ready-to-eat food by ill personnel;
- Verify their supplier's licenses and product certification documentation;
- Inspect and record raw materials, etc.;
- Inspect contract production facilities; and,
- Document product.

In Mexico, the Plant Production Law<sup>15</sup> was revised in 2008. It authorizes the Secretaría de Agricultura, ganadería, Desarrollo Rural, Pesca y Alimentación de México (SAGARPA) – the Agriculture Secretariat –to regulate and promote plant health, as well as to implement, verify and certify systems to reduce risks of physical, chemical and microbiological contamination in the primary production of fruits, vegetables and other crops. The federal General Health Act<sup>16</sup>, revised in 2009, authorizes the federal Health Ministry to empower the Comisión Federal para la Protección Contra Riesgos Sanitarios (Federal Commission for Protection Against Health Risks [COFEPRIS]) to:

- Identify and assess risks to human health; and,
- Establish national policies relating to protection against health risks and its implementation with respect to food, plant nutrients, pesticides, toxic substances, biotechnology products, food supplements and additives.

In Peru, the food safety laws and regulations were also revised in 2008. The new law involves an integrated, farm-to-fork approach to food safety and is based on 10 principles. This include a clear reference to Codex's General Principles for Food Hygiene and a clear statement that “*all businesses in the chain are directly responsible for the production, processing and marketing of food that is safe, healthy and fit for human consumption.*” Other principles focus on competitiveness in domestic and export markets, collaboration between government and industry, transparency, participation (businesses and consumers), trade facilitation, simplicity, precaution, science- and evidence-based decisions, and the preventive approach. As of early 2010, the elaboration of this new law in regulations was a work in progress. In particular, a regulation was in development that would require food businesses and exporters of agricultural products to be registered with the government and, as appropriate, to implement good agricultural practices, good manufacturing practices and HACCP.

13 unofficial English translation accessed on March 10, 2010, at: [http://english.agri.gov.cn/ga/plar/200906/t20090623\\_1106.htm](http://english.agri.gov.cn/ga/plar/200906/t20090623_1106.htm)

14 unofficial English translation accessed on March 10, 2010, at: [www.procedurallaw.cn/english/law/200903/t20090320\\_196425.html](http://www.procedurallaw.cn/english/law/200903/t20090320_196425.html)

15 <http://info4.juridicas.unam.mx/ijure/fed/139/default.htm?s=>

16 [www.diputados.gob.mx/LeyesBiblio/pdf/142.pdf](http://www.diputados.gob.mx/LeyesBiblio/pdf/142.pdf)



### Competent Authorities

In all five countries there has been a reorganization of the responsibilities for setting food safety policy and enforcing regulations. As noted above, Canada centralized its policy setting with the Ministry of Health and its enforcement activities with the Canadian Food Inspection Agency in 1997. Canada is, however, a federation, and the 13 provinces and territories each have legislative and enforcement jurisdiction over food products that are grown, processed and consumed within the province or territory.

In Chile, the current situation gives the Ministry of Health primary responsibility in this area, supplemented in limited areas by the Ministry of Agriculture. The situation, however, may be in transition, if the new Chilean Food Safety Agency is transformed from an advisory committee to an active policy agency. Responsibility for oversight and enforcement in Chile resides with the national Health Ministry and the 13 regional Health Authorities.

In China, with a government structure that involves the national government, 23 provinces, five (5) autonomous regions, four (4) major municipalities (including Beijing and Shanghai) and more than 2,800 county-level administrative divisions, each of which has departmental administrations that mirror the ministries of the central government, the picture is even more complex. The 2009 Food Safety Law established a very high-level Food Safety Commission chaired by three (3) Vice Premiers (and Politburo members) and involving more than 10 heads or vice heads of central government departments in charge of health, finance, etc. The Ministry of Health has been assigned a coordination function for food safety, including the assessment of risk, the formulation of standards, the setting of inspection requirements, the organization of investigations, etc. The Ministry of Agriculture has been assigned primary responsibility for food safety in primary production, with powers similar to those of the Ministry of Health with respect to regulations, risk assessments, formulating national standards, monitoring and supervision of agricultural product quality and safety, etc. It has also been tasked to guide the establishment of a tracing system for agri-food quality and safety. Also at the national level, the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ), a separate ministerial administrative organ that functions directly under the State Council of the People's Republic of China, is in charge of national quality, metrology, entry-exit commodity inspection, entry-exit health quarantine, entry-exit animal and plant quarantine, import-export food safety, certification and accreditation, and standardization, as well as administrative law-enforcement in these areas. Its mandate is for all products, not just food products. The administration of the new food safety laws and regulations (and sometimes even the development of standards and other requirements) is, however, assigned to those responsible at the provincial, regional, municipal and county levels. This means that there may be significant variations in the approaches taken and the results achieved.

In Mexico, the Health Secretariat (Secretaría de Salud) exercises its powers with respect to food safety through the Federal Commission for Protection Against Health Risks (COFEPRIS) and the Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA) which acts primarily through the National Service for Health, Food Safety and Agro-Food Quality (SENASICA)<sup>17</sup>. SENASICA's mandate with respect to fruits and vegetables includes, inter alia:

- Implementing and monitoring compliance with Mexican Official Standards and other applicable laws, and performing acts of authority;
- Promoting and enabling the implementation of systems to reduce risks of contamination in primary production of fruits and vegetables and promoting and guiding research;

<sup>17</sup> [www.senasica.gob.mx](http://www.senasica.gob.mx)

PERU'S MINISTRY OF AGRICULTURE HAS EXCLUSIVE JURISDICTION FOR FOOD SAFETY WITH RESPECT TO PRIMARY PRODUCTION AND PROCESSING OF FOOD AND FEED.

- Recognizing and certifying systems to reduce risks of contamination in primary production;
- Promoting international harmonization and equivalence;
- Issuing technical documents that form the basis for the implementation of Good Agricultural Practices and Management Practices (BPAs and BPMs);
- Organizing and operating the certification, inspection and monitoring processes for primary production; and,
- Recognizing authorized third-party professionals that will assist in the implementation and enforcement of the BPAs.

In Peru, a new government body – the Permanent Multi-Sectoral Commission for Food Safety (Comisión Multisectorial de Inocuidad Alimentaria - COMPIAL) composed of the ministries of health and agriculture – was established by the 2008 Food Safety Law to coordinate sectoral activities, monitor implementation of the new law, coordinate communication with consumers and along the supply chain and insure implementation of comprehensive recall procedures. The Ministry of Health has exclusive jurisdiction at the national level for the safety of food for human consumption, whether processed, produced domestically or imported, except for fisheries and aquaculture foods. Its responsibilities include establishing:

- General standards of hygiene throughout the chain for food;
- The conditions, requirements and procedures for the registration of plants and the issuance of export certificates, etc.;
- Standards for health surveillance, safety, violations and penalties of manufacturing establishments, storage and other food businesses;
- The national system of traceability; and,
- Standards for maximum residue limits (MRLs) for pesticides and veterinary drugs and other chemical contaminants as well as physical and microbiological contaminants.

Peru's Ministry of Agriculture has exclusive jurisdiction for food safety with respect to primary production and processing of food and feed. Its responsibilities include:

- Promoting and facilitating the implementation and execution of a system of quality assurance based on HACCP and its prerequisites;
- Issuing technical protocols relating to compliance with food safety standards for production and primary processing;
- Implementing the traceability system in coordination with other competent authorities;
- Certifying, upon request, the safety of food production and primary processing for the domestic market and foreign trade; and,
- Managing the international equivalence of Peru's food law, to ensure recognition of agricultural and primary processed products by countries to which food is marketed.

Under the Food Safety Law, the Regional and Local Governments have been assigned responsibilities for surveillance and control of food processors and food service operators, organic production, monitoring markets, etc.

### Food Safety - Primary Production and Packing

In each of the countries reviewed there are either high-level or specific requirements that pertain to the safety of fresh fruits and vegetables production, storage and packing. There is, however, considerable variation in these requirements. In some cases there are detailed general standards, and in others, commodity-specific standards. In other countries, the requirements apply to all types of food production.

IN CHINA, IN ADDITION TO THE GENERAL REQUIREMENTS OF THE FOOD SAFETY LAW, THERE ARE SOME SPECIFIC PROVISIONS RELATED TO PRIMARY PRODUCTION.

In Canada, the Food and Drug Act prohibits the sale of food that has in or on it a poisonous or harmful substance, is unfit for human consumption, is adulterated, was manufactured under unsanitary conditions, etc. And the Fresh Fruit and Vegetable Regulations require produce in import, export and interprovincial trade to “not” be adulterated or contaminated or injurious to health and to be prepared in a sanitary manner, edible, etc. These regulations also set out specific requirements in the form of prerequisites for packers and handlers with respect to establishment registration, facilities, hygiene, etc. There are no specific requirements for HACCP or HACCP-based management systems either on farms or in the post-farm segments of the Canadian produce supply chain.

In Chile, the Food Health Regulation prohibits the “[m]anufacturing, importing, holding, distributing, marketing, or transferring altered, contaminated, adulterated, or falsified food for whatever reason” and defines regulated establishments as “places where food products and food additives are produced, processed, preserved, packaged, stored, distributed, sold and consumed.” Food establishments are required to have a permit from the local Health Agency, which may be issued if the establishment meets certain criteria concerning the premises, the raw materials used, the health quality control system, etc. A food business is obligated “from the start of operations ... [to] apply general health practices to handling including cultivation, gathering, preparation, processing, packaging, storage, transport, distribution and sale of food, in order to guarantee a harmless and healthy product” and prohibited from using the permitted site for any other purpose. These regulations also set out hygiene requirements for “production/collection,” including:

- The quality of water for growing, producing or collecting products;
- Contamination by human, animal, domestic, industrial and agricultural waste;
- Good practices respecting the construction, maintenance, cleaning, disinfection, storage, etc. of equipment and containers;
- The segregation of food that is unfit for human consumption during harvest and processing and its safe handling; and,
- The collection and storage of food and/or raw materials under conditions that protect them against contamination and minimize damage and deterioration.

The requirements for produce packers and handlers are also covered, generically, in sections of the Food Health Regulation dealing with:

- The design and construction of food production facilities;
- Facility hygiene (sanitation, pest control, etc.);
- Personal hygiene; and,
- Hygiene for food processing.

The regulation also requires that “[e]stablishments producing, processing, preserving and packaging food must comply with Good Manufacturing Practices (GMP) referred to in this regulation, in a systematic and auditable way” and gives the local Health Authority the authority to require an establishment to implement HACCP in accordance with Chilean Official Standard NCh 2861 of 2004.

In China, in addition to the general requirements of the Food Safety Law, there are some specific provisions related to primary production. These cover the use of “pesticides, fertilizers, growth regulators, veterinary medicines, feeds, feed additives and other agricultural inputs” and an obligation that:

*“An enterprise or farmers’ professional cooperative and economic organization engaging in the production of edible agricultural products shall establish a production record system for edible agricultural products.”*

IN MEXICO, THE GENERAL HEALTH ACT ESTABLISHES AS A CRIMINAL OFFENSE THE FORGING, COUNTERFEITING, POLLUTING, ALTERING OR PERMITTING THE FALSIFICATION, FORGERY, CONTAMINATION OR ADULTERATION OF FOOD, SOFT DRINKS, ALCOHOLIC BEVERAGES OR OTHER SUBSTANCES OR PRODUCTS FOR HUMAN USE OR CONSUMPTION SO AS TO POSE A DANGER TO HEALTH.

Provisions of the *Agricultural Product Quality Safety Law* also concern food safety and prohibit the sale of an agricultural product contaminated by a pesticide, pathogenic parasites, microorganisms or biological toxin, preservatives, antiseptics or additives, etc. that do not conform to relevant standards, etc. The law sets conditions concerning the use of land “*not suited to the production of certain agricultural products*” and requires the local government administration to identify such areas within its jurisdiction. Other articles deal with environmental concerns such as the dumping of waste and wastewater, the reasonable use of chemical products in agriculture, etc. The users of agricultural inputs are also required to proactively exercise responsibility, up to and including testing:

*An enterprise engaging in agricultural production or a professional farmers’ cooperative economic organization shall check the agricultural product quality safety either by itself or by entrusting a testing institution. It is prohibited to sell any agricultural product found from the test to fail to comply with the agricultural product quality safety criteria.*

Beyond the farm gate, the links in the Chinese fresh produce supply chain are required to meet the same general expectations as other food businesses under the Food Safety Law, including the implementation of a set of prerequisite programs that reflect Codex and other standards. They are also encouraged, but not required, to implement good manufacturing practices (GMPs) and HACCP.

In Mexico, the General Health Act establishes as a criminal offense the forging, counterfeiting, polluting, altering or permitting the falsification, forgery, contamination or adulteration of food, soft drinks, alcoholic beverages or other substances or products for human use or consumption so as to pose a danger to health. The Plant Production Law sets out requirements for primary production by first defining Buenas Prácticas Agrícolas (BPAs or GAPs) as

*“A set of minimum sanitary measures that are performed at the site of primary production of plants, to ensure minimizing the possibility of physical contamination, chemical and microbiological quality of a plant or fresh product”*

and then giving SENASICA the authority to audit farms and other primary production and packing facilities on its own initiative or at the request of an interested party. Implementation of BPAs and BPMs are not mandatory. However, only products from a farm and packinghouse with a certificate of compliance with BPAs may bear the mark of a system of contamination risk reduction by the Secretariat.

In Peru, the 2008 Food Safety Law obligates food businesses, including farms, to provide safe and healthy food by complying with:

- Law and regulations;
- National health and quality standards set by the Ministry of Health;
- The General Food Hygiene Principles of the Codex Alimentarius;
- Traceability requirements;
- Information and labeling requirements; and,
- Recall, notification and corrective action requirements.

The Food Safety Regulation adds to these general expectations the requirement to implement good agricultural practices, good manufacturing practices, HACCP and other standards established by the competent authorities. Farms are expected to implement good agricultural practices (GAPs) that are consistent with the Codex General Principles for Food Hygiene. These would, therefore, include practices for:



- Environmental hygiene;
- Hygienic production;
- Handling, storage and transport; and,
- Cleaning, maintenance and personnel hygiene.<sup>18</sup>

In addition, a national standard, NTP 011.125:2006 - *Good Agricultural Practices for horticulture*, establishes best practices for horticultural production to ensure a safe and healthy product based on the application of HACCP principles and procedures compatible with sustainable agriculture and minimal impact on the environment. Peru has also established standards for major export commodities. For example, *NTP 209.402:2003 ASPARAGUS Good Agricultural Practices*, defines GAPs for asparagus production that are designed to ensure a healthy product, free from pollutants and from phytosanitary problems (presence and/or damage caused by pests). These standards combine technologies and techniques that emphasize integrated pest management and natural resource and environmental conservation while minimizing hazards to human health.

### Food Safety and Exports

China has the most detailed requirements for food exporters. These reflect its high-level commitment to protect the “China brand” by eliminating practices that have tarnished the brand image in global markets. In addition to the requirements described for primary production and packers, the Food Safety Law requires a food exporter to be registered and certified and to file information concerning exported products. The law also requires AQSIQ, as the entry-exit inspection and quarantine department of the state, to regularly publish the list of registered exporters and agents. The Chinese government also has agreements with a number of countries (U.S., Japan, etc.) and territories respecting the safety of food exports. The agreement covering Hong Kong and Macao, for example, dates from 2002 and requires all fruit and vegetable shipments to come from registered farms or registered collection stations, be properly labeled and documented. A revised agreement, in place as of Nov. 1, 2009<sup>19</sup>, incorporates the new requirements of the Food Safety Law with respect to:

- The registration system for farms and production and processing establishments;
- The management system of the establishments;
- The certification and records system for vegetable supply;
- The implementation of a records system and labeling management system;
- Labeling on packaging for transport and sale of vegetables;
- Loading supervision and seal control;
- The implementation of an electronic supervision system;
- Testing of pesticide residues in production and processing establishments;
- Inspection at the border; and,
- Noncompliance measures, penalties, etc.

In a test of this agreement, conducted by Hong Kong officials in November 2009, 470 vehicles transporting vegetables were inspected at the border crossing with China (Man Kam To). The results of this test were that all shipments were properly documented and none of the 370 samples taken for pesticide residue testing were “found to be unsatisfactory.”<sup>20</sup>

Fresh fruit and vegetable exports from Canada, Mexico and Peru are also, in some cases, covered by bilateral agreements with the U.S. These have been established primarily for phytosanitary, not food safety, reasons. The authorities in all five countries are mandated and willing to issue export certificates to meet these and other foreign requirements. Domestic requirements covering produce exports can be minimal. In Canada, for example, the

<sup>18</sup> [www.codexalimentarius.net/download/standards/23/exp\\_001e.pdf](http://www.codexalimentarius.net/download/standards/23/exp_001e.pdf)

<sup>19</sup> Hong Kong (2009)

<sup>20</sup> Hong Kong (2009)

TRACEABILITY REQUIREMENTS FOR FRESH FRUITS AND VEGETABLES VARY CONSIDERABLY ACROSS THE FIVE COUNTRIES STUDIED.

*Food and Drug Act, the Food and Drug Regulations, Fresh Fruit and Vegetable Regulations* and the *Licensing and Arbitration Regulations*, with some exceptions, do not apply to exporters or shipments for export. In Chile, the *Food Health Regulations* do apply to exporters of food products, including fresh produce, and facilities must meet domestic requirements for permits. In Peru, food and feed exporters must meet the same requirements as those supplying the domestic market. As noted above, the Peruvian Food Safety Law's seventh principle enshrines *trade facilitation* as a priority for both government and the supply chain and sets the expectation that all food exports will be safe and meet international requirements.

### Traceability

Traceability requirements for fresh fruits and vegetables vary considerably across the five countries studied. For example, in Peru, the Food Safety Law requires all stages of production, processing, distribution and marketing to “ensure the traceability of food, feed, animals for food production and any other substance intended to be incorporated into a food or feed. . . .” And, the Food Safety Regulations prescribe that a food business' traceability system should include information on suppliers of raw materials and supplies of food and feed, as well as customer information including company name, registration, address, goods supplied, date of receipt, etc. This one-step-forward, one-step-back traceability requirement is intended to facilitate recalls and other corrective actions for both domestic and exported products.

China's new Food Safety Law also requires a one-step-forward, one-step-back approach to traceability and China has begun to establish the regulatory and other tools required for its effective implementation. These include two new standards published by AQSIQ that specify the basic principles and requirements on food traceability, tracing procedures and management rules and stipulate the information required for coding, data structure and data carrier identification on food traceability. These are to be followed, in 2010, by standards for:

- Traceability Requirements for Agricultural Products - Fruits and Vegetables; and,
- Guidelines on Design of Agricultural Product Traceability Information System.

To harmonize its traceability standards with those being developed internationally, the Article Numbering Center of China (ANCC)<sup>21</sup>, the Chinese member of GS1 and an affiliate of AQSIQ, had previously published *Guidelines on Tracking and Traceability of Fruits and Vegetables*, approved the China Barcode Promotion Program and conducted a number of national demonstration projects.

The regulations in Canada, Chile and Mexico do not specifically provide for traceability. In Chile the matter was identified as a priority in the 2009 National Food Safety Policy; in Canada the federal and provincial governments have set, as a long-term goal, the implementation of a National Agriculture and Food Traceability System (NAFTS) and the completion of the national livestock and meat traceability systems as the first priority. In Mexico the legislation does not mandate traceability for fresh produce products but the voluntary BPA and BPM programs require farms and packers to maintain the identity of the product from the field to the store, which must include information on the production unit, product, batch, date cutting process on the date of packaging unit and number of boxes of each batch.

21 [www.ancc.org.cn/GS1ChinaEN/index.aspx](http://www.ancc.org.cn/GS1ChinaEN/index.aspx)

THE DEGREE OF INVOLVEMENT AND THE EMPHASIS ON PRIVATE OR PUBLIC SCHEMES VARIES FROM COUNTRY TO COUNTRY.

## FOOD SAFETY CERTIFICATION SCHEMES

### Public and Private

Four of the five countries studied are actively involved in fostering the development of either public or private food safety certification schemes for fresh produce farms, packinghouses, storage facilities, repackers, wholesalers and exporters. The exception is Peru.

The degree of involvement and the emphasis on private or public schemes varies from country to country. The following sections summarize this activity under two headings: schemes that have been developed internally; and those that have a foreign origin. Greater attention is given to the first category. Where possible, information is provided about the participation levels of farms and packers; however, the available information is limited.

Earlier published work comparing certification schemes in the horticulture industry<sup>22</sup> has indicated the following trends:

- That food safety programs have been developed on every continent and in an annually increasing number of countries, including:
  - Americas: Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Mexico, Peru and the United States;
  - Asia and Oceania: Australia, China, India, Malaysia, New Zealand, Philippines, South Korea, Taiwan, Thailand and Vietnam;
  - Africa: Ghana, Kenya and South Africa; and,
  - Europe: Austria, Denmark, France, Germany, Spain, Switzerland and the United Kingdom.
- That, even among produce-specific schemes, there are significant differences in scope, with food safety as the foundation and other attributes such as fair trade, environmental protection, quality, worker conditions, gender and child labor issues, etc. also being added, and coverage of the supply chain (e.g., some cover the whole produce supply chain; others focus on primary production or primary production/primary packing/storage segments; and others on repacking, wholesaling, etc.).
- That while many are national in scope, a limited number of other schemes are available in almost any country.
- That schemes based on HACCP (i.e. that incorporate a generic hazard analysis as the basis for determining the program requirements – good agricultural practices, good handling practices, good storage practices, etc.) dominate the marketplace.
- That schemes that incorporate third-party audit and certification using accredited certification bodies are also increasing in number and use.

This research also indicates that these schemes are increasingly looking to either government bodies to provide formal recognition or to private bodies, such as the Global Food Safety Initiative, to benchmark them to a set of criteria.

### Domestic Schemes

The food safety programs that have been developed within the five countries are of two basic types. Some are just “standards” – that is, sets of requirements that may be HACCP-based or require a site-specific hazard analysis (HACCP) or a compilation of good practices. Those that are just standards are not incorporated into a certification scheme. The other form incorporates standards as part of a certification scheme. Another differentiating factor is whether the development process has been controlled by industry or by government. Finally, there is the matter of recognition by government or benchmarking one of the private sector schemes.

<sup>22</sup> Monachus Consulting (2007, revised 2008) [www.epma.ca/pdf/FoodSafety/JFSCP\\_May\\_2008\\_ENG.pdf](http://www.epma.ca/pdf/FoodSafety/JFSCP_May_2008_ENG.pdf)

AS OF MAY 2010,  
25 OF CANADA'S  
ESTIMATED 40  
COMMERCIAL  
MUSHROOM  
GROWERS WERE  
CERTIFIED TO THE  
MUSHROOMS  
CANADA SCHEME.

In Canada, since the mid-1990s there has been a collaborative initiative led by national industry associations but involving the federal government (the Ministry of Agriculture and Agri-Food and CFIA) and the provincial and territorial governments to develop national HACCP-based programs for all commodities and for certain post-farm segments of the supply chain. As of 2010, approximately 99 percent of primary agricultural products are covered by a HACCP-based program. The horticulture sector was an early and strong supporter of this approach. The results are three voluntary programs for primary production, packing and, where appropriate, storage. They are: CanadaGAP, developed by the Canadian Horticultural Council and covering fresh fruits and vegetables in a single certification scheme based on generic hazard analyses (generic HACCP models) for six crop groupings; the Mushrooms Canada On-Farm Food Safety Program; and the Good Agriculture and Collection Practices (GACP) program for the herb, spice and natural health products industry. In addition, a post-farm, HACCP-based program has been developed by the Canadian Produce Marketing Association (CPMA) for the fresh produce repacking and wholesale segments of the supply chain (Repack/Wholesale Food Safety [RWFS] Program).

CanadaGAP is a fully operational certification scheme that utilizes accredited third-party certification bodies. Its six generic hazard analyses and sets of requirements have completed Technical Review Part 1 of the Government of Canada's rigorous National On-Farm Food Safety Recognition Program run by CFIA and the scheme has been benchmarked by the Global Food Safety Initiative (2010). The GACP program has also completed Technical Review Part 1. Its materials have been released to the producing community, and training programs have been launched. The certification scheme has not yet been finalized nor launched but a self-declaration option is available to users. The Mushrooms Canada certification scheme has been launched with audits undertaken by a third party and certificates issued by the association. Its program documentation package is being revised as part of a regular cycle of reviews and it is expected that this scheme will be submitted for Technical Review by CFIA and for benchmarking by GFSI when this work is completed. The RWFS Program was released for use in 2005 along with an Internet training module for managers and staff of repackers and wholesalers. The program is slated for Technical Review Part 1 as the pilot for CFIA's new National Post-Farm Recognition Program in late 2010. Repackers and wholesalers can currently obtain an audit, but not certification, from CPMA-licensed certification bodies. It is anticipated that the program will be submitted for GFSI benchmarking following completion of the CFIA Technical Review.

As of May 2010, 25 of Canada's estimated 40 commercial mushroom growers were certified to the Mushrooms Canada scheme. CanadaGAP, which started issuing certificates in late 2008, had, as of April 23, 2010, 610 certificates outstanding for fresh produce producers, packers and storage intermediaries.

In Chile, the government through its National Commission on Good Agricultural Practices<sup>23</sup> has published Buenas Prácticas Agrícolas (BPA) technical specifications for 18 types of primary agriculture, including four for fresh produce: fruit, vegetables, berries and potatoes. The others cover: wheat, corn, rice, floriculture, forest plantations, forests, beekeeping, pigs, poultry, eggs, beef cattle, dairy cattle, goats and sheep. The technical specifications that cover fresh produce outline BPAs for primary production and, in the case of fruit, for packing in the field or in permanent structures adjacent to the fields. From a food safety perspective they cover chemical, physical and microbiological hazards. There is no indication that the BPAs are based on a generic hazard analysis or HACCP model. In addition, the requirements include labor conditions, worker health and welfare, environment conditions and biodiversity.

These BPA manuals provide farmers with guidance similar in scope and detail to that provided by GAP documents published in other countries. A strong emphasis is on

<sup>23</sup> [www.buenaspracticas.cl](http://www.buenaspracticas.cl)

IN CHINA, THE GOVERNMENT HAS BEEN INSTRUMENTAL IN DEVELOPING THREE DIFFERENT FOOD SAFETY PROGRAMS AVAILABLE TO THE FRESH PRODUCE INDUSTRY: GREEN FOOD PROGRAM (1990), CHINA SAFE AGRO-FOOD CERTIFICATION (2003) AND CHINAGAP (2005).

prevention, and record-keeping is expected throughout. Farmers are, in key areas, asked to undertake site-specific assessments. In the water management section of the vegetables BPA manual, for example, producers are given detailed advice on water for irrigation and other uses. They are asked to undertake assessments of their water sources and to test water used for irrigation, product washing, drinking, etc. Regular monitoring is required and corrective actions are set out for use when needed.

The Chilean government does not run a BPA certification scheme, so information about producer uptake was not available. However, it is clear that as part of the 2009 National Food Safety Policy the government is encouraging small and medium-sized fresh produce growers and other farmers to implement the BPA programs<sup>24</sup> and it has developed programs to foster this activity.

The Chilean industry, led by the Fruit Development Foundation (FDF) and the exporters association (ASOEX), has developed ChileGAP. This HACCP-based program harmonizes the requirements of European and American GAP programs so that producers can implement practices that will provide them with access to the major global markets at minimum cost. The scheme covers only fruits and vegetables. A 2008 Organization for Economic Co-operation and Development (OECD) review of Chilean agricultural policies concluded that the growth of ChileGAP certifications may be slow because the scheme requirements were “more stringent” than external schemes such as GlobalGAP or the Davis Fresh program<sup>25</sup>. ChileGAP has been benchmarked by GlobalGAP<sup>26</sup> under the “approved modified checklist” option. In this version of the benchmarking process, the audit checklists are compared and any differences resolved by including the missing GlobalGAP requirements. Any additional requirements in the national scheme remain unchanged. As of April 19, 2010, the ChileGAP registry<sup>27</sup> reported that there were 143 certified farms. However, as of April 30, 2010, GlobalGAP<sup>28</sup> reported that ChileGAP had only 13 producers in its registry, all under Option 2 (Group).

In China, the government has been instrumental in developing three different food safety programs available to the fresh produce industry: Green Food Program (1990), China Safe Agro-Food Certification (2003) and ChinaGAP (2005).

The Green Food Program is administered by a special agency and supervised by the Ministry of Agriculture. It covers all agricultural and food products and the supply chain from production through processing. Its standards encompass food safety, quality, nutrition and the principles of sustainable development. The food safety requirements are those now set out in China’s Food Safety Law and its Agricultural Product Quality Safety Law. As a business-to-consumer scheme, products can be labeled as either Green Food “AA” or Green Food “A.” Oversight is provided by the 42 provincial branches and other agents of the Green Food Development Center. Uptake has been difficult to track. A 2005 FAO study estimated that only a small number, perhaps 3 percent, of the 3,700 certified enterprises were involved in the fresh produce sector.

The Safe Agro-Food scheme is managed and monitored by the Centre for Agro-Food Quality and Safety (CAQS). Targeted at the full supply chain, the program is based on the principles of standardized production, input supervision, critical control points, safety guarantee and label management. Participants must meet the government requirements of general agricultural products and food safety. Certification of agricultural facilities covers three main areas: environment, production facilities and record-keeping. CAQS provides certification free of charge to farmers as all costs for inspection and certification are borne by the Ministry

<sup>24</sup> [www.achipia.cl/prontus\\_inocuidad/site/artic/20091127/pags/20091127045156.html](http://www.achipia.cl/prontus_inocuidad/site/artic/20091127/pags/20091127045156.html)

<sup>25</sup> OECD (2008)

<sup>26</sup> [http://www2.globalgap.org/full\\_app\\_stand.html](http://www2.globalgap.org/full_app_stand.html)

<sup>27</sup> [www.chilegap.com/default.asp?idioma=1](http://www.chilegap.com/default.asp?idioma=1)

<sup>28</sup> Personal communication by e-mail on April 30, 2010.



of Agriculture. In 2007 the FAO reported that approximately 17 percent of the cultivated farmland, 25 percent of the agricultural facilities and 30 percent of agricultural products produced in China were certified according to the Safe Agro-Food scheme<sup>29</sup> and “about 95 percent of all food and agricultural products in China live up to the food safety requirements set by the Safe Agro-Food standard.”

ChinaGAP was established by the Chinese government through its Certification and Accreditation Administration (CNCA) to meet European buyer specifications, in particular those of the GlobalGAP benchmarking scheme. Unlike ChileGAP, the program is for all types of farm products. ChinaGAP was launched in 2005 and in April 2010, the program was given provisional approval under the modified approved checklist option of GlobalGAP’s benchmarking scheme (version 3) for the Integrated Farm Assurance/Crops/Fruit and Vegetables and Combinable Crops modules (2008 version). Certification is undertaken by certification bodies licensed and accredited by CNCA under a Chinese standard equivalent to ISO Guide 65. As of October 2009, there were 15 accredited certification bodies with access to 435 registered inspectors or auditors. However, at the time of provisional approval in April 2010, GlobalGAP had only recognized one certification body to undertake audits and certification to ChinaGAP’s benchmarked version.

Participation in the ChinaGAP program is, as yet, limited. In an October 2009 presentation, CNCA reported that its licensed certification bodies had issued 659 certificates since the start of the program, but that only 341 were then current. On April 30, 2010, GlobalGAP reported only three (3) farms certified to ChinaGAP under Option 1 (Individual Farm).<sup>30</sup>

The Mexican government has also developed a set of food safety programs available to the fresh produce sector. The voluntary Programa de buenas practicas agrícolas (BPA) y de empaque (BPM)<sup>31</sup> (Program of good agricultural practices and packaging) cover good practices for production, storage and packing of fresh fruits and vegetables. These programs, in both their generic and commodity-specific formats, cover the commonly accepted control measures for biological, chemical and physical hazards. They are also designed to include organic production. There is, however, no clear statement that the HACCP approach or a HACCP-based hazard analysis was used in their development. For BPA/BPM programs, SENASICA has authority under the Plant Protection Law to either “*directly or through verification units, authorized third parties, certification bodies and testing laboratories*” audit and then issue a “*report, opinion or certificate, as appropriate.*” In practice it is using third parties to conduct the audits. Following an audit, the applicant must complete any corrective actions within 45 days. Based on either the initial audit report or a review of the corrective actions, the department issues certificates. Under the fresh produce schemes, SENASICA had recognized<sup>32</sup> farms with BPA implementation or primary packers with BPM implementation, as follows:

- In 2006 – 220 (158 farms, 62 packers)
- In 2007 - 381 (282 farms, 99 packers)
- In 2008 - 740 (607 farms, 133 packers)

México Calidad Suprema (MCS) (Mexico Supreme Quality)<sup>33</sup> is a generic brand that is registered in the Mexican Institute for Intellectual Property (IMPI) and owned by the federal government through the Department of Economics, SAGARPA and BANCOMEXT. The

<sup>29</sup> <ftp://ftp.fao.org/docrep/fao/010/ai416e/ai416e00.pdf>

<sup>30</sup> [www.globalgap.org/cms/upload/Documents/temp\\_upload/TOUR2009/Presentations/20091015\\_KL\\_Introduction\\_to\\_ChinaGAP\\_Xiande\\_Liu.pdf](http://www.globalgap.org/cms/upload/Documents/temp_upload/TOUR2009/Presentations/20091015_KL_Introduction_to_ChinaGAP_Xiande_Liu.pdf)

<sup>31</sup> [www.senasica.gob.mx/?doc=16109](http://www.senasica.gob.mx/?doc=16109)

<sup>32</sup> *Evaluación del Programa de Buenas Prácticas Agrícolas* (2009) [www.senasica.gob.mx/?doc=8901](http://www.senasica.gob.mx/?doc=8901)

<sup>33</sup> Site Under Construction: [www.mexicocalidadsuprema.com.mx](http://www.mexicocalidadsuprema.com.mx) There is an English-language blog: <http://msqinfo.wordpress.com>

MCS'S BLOG<sup>34</sup> REPORTED, AS OF MARCH 25, 2010, THAT "MORE THAN 350 MEXICAN GROWER OPERATIONS [WERE] SERVED BY MSQ" AND THAT "OVER 290 ARE ALREADY FULLY CERTIFIED."

scheme was established in 2003 and is operated by a nonprofit civil partnership made up of growers, packers and their organizations. As a brand-based, business-to-consumer scheme, the México Calidad Suprema™ label can be used on products, advertising materials, vehicles, etc. The scheme covers a wide range of agricultural products, and for fresh and fresh-cut produce the scope includes: primary production, packing and, where applicable, fresh-cut processing. The program specifications cover: health, safety, quality attributes (color, flavor, appearance, texture, etc.), product traceability and management (e.g. record-keeping, etc). Primary producers must be in compliance with SENASICA's BPA requirements for the commodity, and packers must be in compliance with SENASICA's BPM requirements. To be certified, fresh-cut processors must have HACCP in place.

Certified products must meet Mexican legal requirements and, if for the export market, any requirements of the importing country. To obtain certification both the product and the firm must meet additional MCS requirements. For the product, the packer must operate an internal quality control system that ensures that the products meet the MCS specifications. The scheme's credibility rests in part on its use of accredited certification bodies. As of March 2009, MCS<sup>34</sup> reported 94 packers either certified or in the process of being certified to México Calidad Suprema in fruits or vegetables. The number of participating farms (suppliers) is unknown. MCS's blog<sup>35</sup> reported, as of March 25, 2010, that "more than 350 Mexican grower operations [were] served by MSQ" and that "over 290 are already fully certified." The blog<sup>36</sup> also lists those farms that export to the U.S. or Canada.

Mexico has also developed MexicoGAP. This scheme is also owned by the nonprofit organization that runs the México Calidad Suprema program. MexicoGAP currently covers only fresh fruits and vegetables. It is HACCP-based (following the GlobalGAP approach) and includes environmental protection GAPs, occupational health and safety criteria on farms, and awareness and responsibility for socially related issues.

MexicoGAP has been benchmarked by GlobalGAP to its Integrated Farm Assurance version 3.0 for the module Crops/Fruit and Vegetables using the modified approved checklist option. As of April 30, 2010, MCS has licensed two (2) domestic certification bodies. Estimates vary as to the number of farms certified. MCS, as of March 2009<sup>37</sup>, reported 49 farms either certified or in the process of being certified to MexicoGAP in fruits or vegetables. As of April 30, 2010, GlobalGAP reported<sup>38</sup> 24 farms certified to MexicoGAP in its database.

As noted above, Peru has taken a different approach. It has not, for example, developed a counterpart to the "countryGAP" programs established by either governments or industry in Canada, Chile, China and Mexico. It has, instead, created a mandatory requirement for farms and packers to implement good practices consistent with the Codex General Principles of Food Hygiene and then issued national standards as guidance. *NTP 011.125:2006 - Good Agricultural Practices for horticulture* establishes best practices for horticultural production to ensure a safe and healthy product based on the application of HACCP principles and procedures compatible with sustainable agriculture and minimal impact on the environment. A parallel document, *NTP 209.402:2003 ASPARAGUS Good Agricultural Practices* defines GAPs for asparagus production that are designed to ensure a healthy product, free from pollutants and from sanitary problems (presence and/or damage caused by pests). For the export market, the government has encouraged firms to utilize international certification schemes.

<sup>34</sup> Site Under Construction:

[www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Directorio-de-Productores-\(Marzo-09\).pdf](http://www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Directorio-de-Productores-(Marzo-09).pdf)

<sup>35</sup> <http://msqinfo.wordpress.com>

<sup>36</sup> <http://msqinfo.wordpress.com/products-producers/>

<sup>37</sup> Site Under Construction: [www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Directorio-de-Productores-\(Marzo-09\).pdf](http://www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Directorio-de-Productores-(Marzo-09).pdf)

<sup>38</sup> Personal communication by e-mail on April 30, 2010.

THE GLOBALGAP  
FRUITS AND  
VEGETABLES  
SCHEME WAS  
BENCHMARKED BY  
GFSI IN 2009.

### International Schemes

As the market for fresh fruits and vegetables globalized in the 1990s, handlers, distributors and retailers in Europe and North America started to demand that suppliers in exporting countries demonstrate that they were implementing food safety control measures. Initially, this demand related to specifications set by each customer<sup>39</sup>, and then, as a response to the inefficiencies and resource demands of conducting multiple supplier audits, it led to the creation of third-party certification schemes such as EurepGAP (now GlobalGAP) and the Safe Quality Food standards (now SQF 1000 and SQF 2000), as well as to the BRC Global Food Standard (British retailers), the French and German International Food Standard (IFS) and a number of American schemes such as Davis Fresh, PrimusLabs, etc. Many of these private, international schemes are in use in the countries examined; however details about their uptake are, in most cases, unavailable from public sources.

In primary production, GlobalGAP<sup>40</sup> has certificates issued in all the countries reviewed, including Chile, China and Mexico where it also has benchmarking national, “countryGAP” schemes in the fresh produce sector. GlobalGAP is the dominant certification requirement for entry into the European market, and most of its certifications (81 percent of just over 94,000 in 2008) are in European countries and most of these are in fresh produce. It is a HACCP-based food safety program that also includes requirements respecting environmental protection, occupational health and safety criteria on farms, and awareness and responsibility regarding socially related issues. In fresh produce, its module covers primary production and primary packing. The GlobalGAP fruits and vegetables scheme was benchmarked by GFSI in 2009. Certification can be obtained either as an individual farm (Option 1) or as part of a group (Option 2). To be eligible, groups such as a cooperative or a packer with supplying farms must be bound by a contractual relationship and have in place a central management system, internal audit scheme, etc. Certificates are issued by accredited certification bodies.

GlobalGAP’s uptake (as of April 30, 2010) varied considerably among the five countries:

| Country | Option 1(Individual farm) | Option 2 (Group) |
|---------|---------------------------|------------------|
| Canada  | 36                        | 14               |
| Chile   | 1,857                     | 367              |
| China   | 267                       | 45               |
| Mexico  | 356                       | 0                |
| Peru    | 213                       | 1,008            |

<sup>39</sup> Some major retailers continue to use their own schemes: for example, Tesco, a global retailer headquartered in the United Kingdom, operates the in-house scheme Nurture (formerly Tesco Nature’s Choice).

<sup>40</sup> [www.globalgap.org](http://www.globalgap.org)

SEVERAL OF THE COUNTRIES REVIEWED HAVE INITIATED BUT NOT COMPLETED THE MODERNIZATION OF THEIR FOOD SAFETY REGIMES.

The uptake of the other schemes focused on primary production and packing are not so easily tracked. The SQF schemes (1000 and 2000) are HACCP-based, food safety-focused and involve third-party audits by accredited certification bodies. Versions of both schemes have been benchmarked by GFSI. However, there has been limited uptake outside of SQF's original home base in Australia. As of April 19, 2010, the SQF registry recorded the following certificates in three of the five countries:

| Country | Primary Production | Packinghouse | Warehouse/Distributor |
|---------|--------------------|--------------|-----------------------|
| Canada  | 3                  | 10           | 1                     |
| Mexico  | 6                  | 6            | 0                     |
| Peru    | 0                  | 7            | 0                     |

The Davis Fresh schemes for primary production and packing, which are now owned by NSF – a U.S.-based global standards development body, have greater penetration in Mexico and South America than the SQF schemes. For example, as of April 2010, one certification body listed 191 certified farms under the Davis Fresh US Field GAP program and 20 certificates under the Davis Fresh US GAP/Packing program. In addition, NSF International, an NSF subsidiary, listed 13 sites in Chile where it has issued separate certificates for Davis Fresh HACCP and GMP programs. Unfortunately, such information was not available for other countries in our review.

Of the schemes that focus just on the packinghouse segment of the supply chain, certificates could only be confirmed for the BRC Global Food Standard and its fresh produce packers. The BRC scheme was one of the original four benchmarked by the GFSI and was designed primarily for British retailers to use for private-label products. It is now also supported by some retailers outside of the U.K. Uptake of this program again varies, with it representing a significant number the exporting packinghouses in Chile and Peru:

| Country | Packinghouses |
|---------|---------------|
| Canada  | 1             |
| Chile   | 71            |
| China   | 15            |
| Mexico  | 5             |
| Peru    | 17            |

## FUTURE CHALLENGES

During the course of this study a number of challenges were identified that are common to all or most of the countries reviewed. These challenges include matters related to the further reform of food safety regimes, fully establishing new oversight capacity, the implementation of public and private food safety certification schemes and the role of small producers and processors in the food systems of the exporting countries.

### Further Modernization of National Food Safety Regimes

Several of the countries reviewed have initiated but not completed the modernization of their food safety regimes. For example, Mexico, Peru and China have indicated that further regulations are contemplated as they build on foundations laid in their 21<sup>st</sup>-century



legislative modernizations. And, in the cases of Canada and Chile, the governments have indicated that additional major measures are planned.

Canada, like the United States, has been exploring modernization of food safety laws for some time. As part of the first wave of reform in the mid- to late 1990s, Canada created the Canadian Food Inspection Agency and introduced mandatory HACCP for fish and seafood, meat and poultry products that move in interprovincial or export trade. It also launched a review of the federal legislation related not only to food safety but also to product safety and a number of health issues. Most recently, the Government of Canada issued a *Food and Consumer Safety Action Plan* in early 2008 and introduced proposals (Bill C-51) to amend the Food and Drug Act to:

- Broaden the coverage of “potentially unsafe food” to include “food at all points along the continuum,” including imports at the time of importation, and to “more clearly describe food not permitted for importation into or sale in Canada”;
- Prohibit tampering, threatening to tamper or falsely claiming to have tampered with food, its packaging or its label;
- Permit the federal government to:
  - Work with exporting countries and to recognize “comparable foreign inspection systems and results”;
  - Establish requirements and systems for the registration or licensing of products, persons or establishments.
- Create new federal regulatory powers respecting:
  - Adding foods to a “prescribed list” that would result in requirements for importers and domestic food businesses (including those conveying the prescribed products to be registered or licensed);
  - The preparation and retention of documents;
  - The establishment of tracing systems by persons who sell or import food;
  - “Pre-clearance or in-transit requirements” for imported foods (e.g. new “Hold and test” provisions);
  - Requiring quality management systems, quality control programs, safety programs, etc. (e.g. the power to mandate HACCP);
  - Recognition of foreign inspection bodies, foreign inspection or preparation systems, facilities or results;
  - Monetary penalties and increased fines;
  - The taking of samples or the seizure, detention, forfeiture or disposition of foods or other products; and,
  - A new authority to incorporate in a regulation by “reference” documents produced by persons or bodies such as a standards development organization, an industry or trade association, another government.

In the section on Offences (Section 31) in Bill C-51, the government proposed an amendment to include “*Due diligence [is] a defence in a prosecution.*”

Bill C-51 died on the order paper with the proroguing of 39<sup>th</sup> Parliament in August 2008 and the calling of an election for October. That autumn Canada experienced a major food safety crisis with 22 deaths related to *Listeria* contamination of ready-to-eat meat products. This crisis led to the government launching an independent inquiry that reported in mid-2009 and made 57 recommendations<sup>41</sup>. In August 2009, the Canadian government committed itself to implementing all the recommendations and announced in the Speech from the Throne at the beginning of the third session of the 40<sup>th</sup> Parliament that it “*will continue to strengthen Canada’s food safety system ... hold those who produce, import and sell goods in*

<sup>41</sup> [www.listeriosis-listeriose.investigation-enquete.gc.ca/index\\_e.php?s1=rpt&page=tab](http://www.listeriosis-listeriose.investigation-enquete.gc.ca/index_e.php?s1=rpt&page=tab)

THE 2009 NATIONAL FOOD SAFETY POLICY<sup>42</sup> PUBLISHED BY THE GOVERNMENT OF PRESIDENT MICHELLE BACHELET LAID OUT AN AMBITIOUS SET OF OBJECTIVES AND ACTIONS FOR THE CONTINUED REFORM OF THE CHILEAN FOOD SAFETY SYSTEM THROUGH 2015.

*Canada accountable for the safety of Canadians.*<sup>42</sup> As of June 2010, legislation to amend the Food and Drug Act had not yet been re-introduced.

Updating of the *Food and Drug Act* has the potential to bring it in line with the second wave of food safety law modernization and to further harmonize food safety requirements in Canada with those proposed but not yet enacted in the United States.

As of June 2010, Chile is in a similar position. The 2009 National Food Safety Policy<sup>43</sup> published by the government of President Michelle Bachelet laid out an ambitious set of objectives and actions for the continued reform of the Chilean food safety system through 2015. As noted in Section 2.1 of the case study on Chile, this policy is based on five principles and structured around six objectives with 16 sub-objectives and 38 actions. Of relevance to this study and the supply of fresh produce to the export market are proposals to:

- Set a regulatory framework harmonious with or equivalent to the international standards of the Codex Alimentarius;
- Modify the food surveillance and control systems to make them more preventive and integrated and better able to respond to food crises through:
  - Supporting the implementation of quality assurance systems in food businesses; and,
  - Expanding self-control practices and mechanisms and shifting the Ministry of Health inspections from products to processes and reorienting it according to the hazards and risks of different segments of the chain.
- Improve coordination between the Ministries of Health and Agriculture on pesticide residue programs in produce;
- Harmonize HACCP compliance inspection between the Ministries of Health and Agriculture and the entity charged with fish and seafood inspection (SERNAPESCA).
- Modernize the food emergency management system for both domestic and exported foods;
- Improve control and certification processes for food exports through:
  - Defining minimum export safety standards;
  - Assessing the option of making mandatory the certification of food exports; and,
  - Advancing the implementation of online certification of exports.
- Promote industry implementation, with a priority on small and medium-sized farms and firms, of preventive food safety practices, traceability, training, etc.; and,
- Complete the modernization of the government's food safety institutions through:
  - Legally establishing the Chilean Food Safety Agency;
  - Creating a scientific committee for food risk evaluation within the agency; and,
  - Improving the surveillance, control and certification programs of the involved ministries.

As one of its last food safety-related actions, the Bachelet government introduced into the Chilean Chamber of Deputies a Presidential Message (N° 1428-357) on Nov. 2, 2009, to make some of the legal changes outlined in the policy. This message proposed to create a national system “to ensure the safety of food produced, processed, imported, distributed or marketed in the country for both domestic consumption and for export, in order to preserve, in food safety, the protection of human health and the rights of consumers, and encourage the competitive development and exporting the food industry.”

<sup>42</sup> [www.speech.gc.ca/grfx/docs/sft-ddt-2010\\_e.pdf](http://www.speech.gc.ca/grfx/docs/sft-ddt-2010_e.pdf)

<sup>43</sup> [www.achipia.cl/prontus\\_inocuidad/site/artic/20090921/asocfile/20090921122318/english.pdf](http://www.achipia.cl/prontus_inocuidad/site/artic/20090921/asocfile/20090921122318/english.pdf)

THE MODERNIZATION INITIATIVES IN CHILE, CHINA, MEXICO AND PERU HAVE SIGNIFICANTLY EXTENDED THE SCOPE OF GOVERNMENT OVERSIGHT OF THE AGRI-FOOD SUPPLY CHAIN, AND NOT JUST FOR FRESH FRUITS AND VEGETABLES.

It would achieve this through a number of new measures that put a clear onus on all private participants (farmers through final marketers) in the supply chain to:

- Ensure that the food under their control is safe, complies with the food law and is fit for human consumption;
- Implement traceability of food, feed, animals for food production and any other substance intended to be incorporated into a food or feed;
- Implement control measures appropriate to identified hazards;
- Notify the food safety agency that a food or feed does not meet the relevant national or international law or may be a risk to the health of the population; and,
- Withdraw or recall unsafe food or feed.

The draft legislation also clarified some of the roles that public institutions will have in this modernized and integrated national food safety system. In particular it sets out the legal basis for the Chilean Food Safety Agency and positions the agency as the leader of “*the National System for Food Safety, through the implementation of actions and the coordination and integration of agencies with responsibilities associated with matters relating to food safety.*” The draft legislation, as noted above, had not been passed by the Chamber of Deputies when the Congress dissolved in January for the 2010 election and the formation of a new government under President Sebastian Piera.<sup>44</sup>

#### Fully Establishing Oversight Capacity

The modernization initiatives in Chile, China, Mexico and Peru have significantly extended the scope of government oversight of the agri-food supply chain, and not just for fresh fruits and vegetables. These countries each have decentralized approaches to oversight, with in excess of 2,800 county-level administrations in the case of China, and even in Chile, Mexico and Peru, a significant number of regional jurisdictions. Passing legislation, even in a developed country, does not immediately translate into having the capacity to administer it. New resources are required. New training is essential. And, time is needed for transitions to be made by industry and by the regulators.

This work is ongoing. The Peruvian government in its 2010 operational plan<sup>45</sup> for SENASA, provides some examples as to how it plans to proceed. For example, it has identified:

- Developing the ability to monitor and control primary production and processing;
- Publishing a regulation of farm food safety production and primary processing;
- Developing national standards for maximum pesticide residues;
- Developing a national system for tracking agricultural food;
- Designing and implementing a strategy for a seal of approval for agricultural food production and primary processing;
- Implementing training in best practices (BPAs, etc.);
- Designing six (6) manuals of good practices for production and primary processing;
- Assisting 100 processors and 500 farms to implement BPAs;
- Training 100 new inspectors in 10 local government departments.
- Developing a broad risk communication program for producers.

<sup>44</sup> As of September 1, 2010, news reports [www.la2da.cl/modulos/catalogo/Paginas/2010/09/01/LUCSGEC20SG0109.html](http://www.la2da.cl/modulos/catalogo/Paginas/2010/09/01/LUCSGEC20SG0109.html) indicated that the functions of the proposed new agency would be integrated into a restructured Ministry of Agriculture and Food.

<sup>45</sup> [www.senasa.gob.pe/0/modulos/JER/JER\\_ListarHijos.aspx?ARE=0&PFL=0&JER=2886](http://www.senasa.gob.pe/0/modulos/JER/JER_ListarHijos.aspx?ARE=0&PFL=0&JER=2886)



### Implementation of Public/Private Food Safety Schemes

All of the countries studied, in one way or another, have signaled support for the fresh produce sector to implement either public or private food safety certification schemes. This is of particular importance, given the interest of the U.S. Food and Drug Administration in the use of third-party certification programs for extending its oversight of imported foods and feeds.<sup>46</sup>

The challenge of achieving a high level of implementation of these schemes is, of course, a function of several variables, including the number of producers, packers and other participants in the supply chains; their scale and sophistication; the availability of experts and trainers to assist them and of auditors to audit; the financial significance of any required new investments; the strength of the demand from the final marketers in the supply chain or from the government via regulation; etc.

In Chile, where, in 2006, there were about 7,000 commercial fresh fruit producers and more than 500 export firms supplying some 1,300 importers in more than 70 countries around the world, the bulk of the trade (perhaps 90 percent) was controlled by the 65 members of the Chilean Fresh Fruit Association (ASOEX)<sup>47</sup>. This organization was a leader in bringing GlobalGAP to Chile and then in the creation of ChileGAP. A significant number of its members, based on a review of their Web sites, have obtained certification to, for example, the BRC scheme. However, it would appear that less than a third of commercial farms supplying fresh fruit have achieved certification.

In Canada, there has been significantly less pressure from domestic retailers. Of the majors, only Loblaw's has clearly signaled that it expects growers and packers to be certified to CanadaGAP or the RWFS Program or an equivalent. As a result, the uptake by the approximately 20,000 fruit and vegetable growers is still limited, if growing.

In countries with large numbers of small-scale producers, such as Mexico and China, the challenges will be even greater.

### The Role of Small Producers and Processors

The case of China may in many respects be seen as extreme, however the challenges it has with small-scale producers are shared with other countries in this study, such as Mexico and Peru, and with other countries not reviewed, such as India and the fresh produce-exporting nations in Africa.

In China, the agricultural reform of the past four decades has resulted in some 200 million households engaged in farming, most of which are cultivating between 1 and 2 acres of land spread over 4 to 6 plots. These farmers have limited access to capital and in most cases limited education (e.g. fewer than six years of schooling)<sup>48</sup>. The domestic food processing market is also dominated by businesses that are "small, often family-owned, enterprises operating out of households or rented facilities with very little capital investment" and considerable mobility.<sup>49</sup>

These challenges are recognized and initiatives are being taken to overcome them. The Chinese government is encouraging agricultural cooperatives to provide training in GAPs and BMPs and to provide oversight, particularly in the area of product testing. The private sector -- packers and processors -- have developed several models to ensure product quality and safety. These include a vertical integration model where "the company leases land and controls production directly" and a model based on production contracts "that specify

<sup>46</sup> [www.fda.gov/OHRMS/DOCKETS/98fr/FDA-2008-N-0183-n.pdf](http://www.fda.gov/OHRMS/DOCKETS/98fr/FDA-2008-N-0183-n.pdf)

<sup>47</sup> OECD (2007)

<sup>48</sup> Zhou (2009)

<sup>49</sup> Lohmar (2009)

IN LINE WITH OTHER COUNTRIES THAT HAVE UNDERTAKEN MODERNIZATION DURING THE SECOND WAVE OF FOOD SAFETY REFORM, PERU HAS ADOPTED A FIELD-TO-FORK APPROACH FOR BOTH FOOD FOR HUMAN CONSUMPTION AND ANIMAL FEED.

chemical use and production methods”.<sup>50</sup> Some produce-exporting firms “sometimes use both methods—growing the crops that are most prone to excess pesticide problems, such as leafy greens, on their leased land and using production contracts for other crops.”

Given the small size of farm acreages, the arrangements for both models are developed on relatively large scales and usually involve either village officials or agricultural marketing cooperatives as intermediaries. The land involved in an integrated lease agreement could include several villages and hundreds of acres. To ensure that the lease terms are being adhered to, technical experts employed by the companies are used to manage and supervise the operation; conduct tests of soil, water and air for pollutants; purchase and supply inputs (e.g. pesticides and fertilizers) to control quality and meet market requirements for customers in Europe, Japan, South Korea and North America; and conduct GAP training and supervise workers. In the production contract model, these responsibilities are devolved to the contractor, again either village officials or agricultural cooperatives.<sup>51</sup> Based on the experience of fresh produce exports to Hong Kong, these models and the new regulatory regime can result in a high standard of food safety in the products exported from China.

China, with some outside funding, is also making significant investments in infrastructure and activity. A recently announced initiative funded by the World Bank (May 2010)<sup>52</sup> demonstrates the requirements in just one province. The Jilin Agricultural Product Quality and Safety Project has a project budget of \$142 million for the six years ending in June 2016. These funds are to be targeted at:

- Promotion of Good Agricultural Practices for Agricultural Product Quality and Safety (\$20 million): Investments in new GAP standards, increased adoption by farmers, piloting certification programs on farms and in processing facilities, demonstration sites (200 to 300) across the full range of commodities and products.
- Public Monitoring of Agricultural Product Quality and Safety (\$63 million): Financing the upgrading of provincial monitoring and enforcement systems, including the introduction of a risk-based approach, new laboratory equipment in enforcement offices and training and several new laboratories (at ISO 17025 standards) and baseline research on areas with contaminated soils, water, etc.
- Applied Research, Training and Awareness Raising (\$12 million): New research based on quality and safety priorities, a training program for laboratory technicians, in-field farmer training and public awareness initiatives directed at both farmers and the public.
- Demonstration Models for Safe Agriculture Supply Chains (\$19 million): Funding through loans with terms of less than six years for eligible private enterprises or farmers’ associations to develop and demonstrate models for integrating small-scale farmers into high-quality, high-value and safe agricultural product chains.
- Project Management and Monitoring (\$6 million).
- Contingency (\$22 million).

<sup>50</sup> Calvin (2006)

<sup>51</sup> Calvin (2006), Zhou (2009)

<sup>52</sup> [www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2009/07/09/000104615\\_20090710145936/Rendered/PDF/Integrated0Saf10Sheet1Concept0Stage.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2009/07/09/000104615_20090710145936/Rendered/PDF/Integrated0Saf10Sheet1Concept0Stage.pdf)

## CANADA – CASE STUDY

THE MINISTRY OF HEALTH (HEALTH CANADA) HAS RESPONSIBILITY FOR ADMINISTERING THE FOOD SAFETY PROVISIONS OF THE FOOD AND DRUGS ACT AND REGULATIONS.

## 1.0 INTRODUCTION

Canada's fresh produce sector<sup>1</sup>, at 14 percent, ranks third behind livestock and grains and oilseeds in its contribution to farm cash receipts. The industry is located in all provinces but concentrated in Ontario, British Columbia and Quebec. The primary products are:

- Vegetables: Tomatoes, Peppers, Mushrooms, Cucumbers, Onions, Carrots, Cabbage, Lettuce, Cauliflower, Celery, Potatoes, and Greenhouse Tomatoes, Cucumbers, Peppers and Lettuce;
- Fruits: Apples and Grapes (*labrusca* and *vinifera*);
- Tender Fruits: Apricots, Peaches, Nectarines, Plums and Prunes, Cherries (Sweet and Sour), and Pears; and,
- Berries: Blueberries (low bush and high bush), Raspberries, Strawberries, Cranberries and Saskatoon Berries.

As of 2006 (the last census) there were just over 24,000 farms and 398,600 hectares (ha) involved in greenhouse vegetable production (8,754 farms – 1,057 ha), fruits and berries (8,329 farms – 110,000 ha), vegetables (5,239 farms – 125,000 ha), potatoes (1,607 farms – 162,500 ha) and mushrooms (154 farms – 63 ha).

Canada is the second largest supplier of fresh produce to the U.S. In 2009, the U.S. Department of Agriculture (USDA) estimated that the U.S. imported \$1.6 billion in fresh and frozen vegetables and \$250 million in fresh and frozen fruits. Looked at from a Canadian perspective, in 2008, the U.S. took 95.4 percent of Canada's vegetable exports, 81.2 percent of its potato exports and 75.7 percent of its fruit exports. No other destination took more than 3.7 percent of Canadian exports in any of the three categories

## 2.0 THE NATIONAL FOOD SAFETY REGIME

Under the Canadian constitution, the responsibility for food safety (and other matters relating to health, trade and agriculture) is divided between the federal and the provincial (and territorial) governments. The Canadian government has primary responsibility under its powers with respect to the criminal law for setting food safety standards and under its trade and commerce powers, for food that is imported, exported and shipped across provincial boundaries. The provincial governments under their powers have primary responsibility for agriculture and for food production that does not move in interprovincial or export trade.

## 2.1 Food Safety Laws

The main Canadian legislation covering food safety is the *Food and Drugs Act*<sup>2</sup>, which prohibits the manufacture or sale of all dangerous or adulterated food products anywhere in Canada. The Act derives its authority from the criminal law powers of the federal government. The Act is contemporaneous with the U.S. *Federal Food, Drug, and Cosmetic Act* (that was enacted early in the 20th century) and its food safety provisions have not been significantly updated for more than 50 years. It is supplemented by *Food and Drug Regulations*<sup>3</sup> that are designed to ensure the safety and nutritional quality of foods.

<sup>1</sup> AAFC (2009)

<sup>2</sup> <http://laws.justice.gc.ca/eng/F-27/index.html> (current to January 25, 2010) There are separate acts that cover meat, poultry and fish inspection.

<sup>3</sup> <http://laws.justice.gc.ca/eng/C.R.C.-c.870/index.html> (current to January 25, 2010)



Other federal trade and commerce legislation references the Food and Drugs Act and stipulate additional requirements:

*Canada Agricultural Products Act*<sup>4</sup>  
*Fresh Fruit and Vegetable Regulation*<sup>5</sup>

In addition to the legislation and regulations, the Canadian government has also issued two codes of practice that provide guidance with respect to fresh produce products:

*Code of Practice for the Hygienic Production of Sprouted Seeds*<sup>6</sup>  
*Code of Practice for Minimally Processed Ready-to-Eat Vegetables*<sup>7</sup>

There are also laws and regulations covering plant protection products, their registration and use:

*Plant Protection Act*<sup>8</sup>  
*Plant Protection Act Regulations*<sup>9</sup>  
*Pest Control Products Act*<sup>10</sup>  
*Pest Control Products Regulations*<sup>11</sup>

Canadian maximum residue limits on agricultural chemicals, known as MRLs, are listed in Table II<sup>2</sup> of Division 15 of the *Food and Drug Regulations*. For registered pesticides having no MRLs listed in Table II, residues are covered under the default of 0.1 ppm.

## 2.2 The Competent Authorities

The Ministry of Health (**Health Canada**<sup>13</sup>) has responsibility for administering the food safety provisions of the *Food and Drugs Act and Regulations*. Health Canada (HC):

- Sets standards and policies governing the safety and nutritional quality of all food sold in Canada. Specifically:
- Engages in research, risk assessment, pre-market review and evaluation of all issues related to food safety and nutrition, and regulation and registration of pest control products and veterinary drugs; and,
- Is responsible for assessing the effectiveness of the Canadian Food Inspection Agency's (CFIA) food safety activities.

The **Canadian Food Inspection Agency**<sup>14</sup> (CFIA) is responsible for enforcing the Food and Drugs Act and Regulations and for the administration and enforcement of the federal trade and commerce legislation regarding food safety and quality, including the *Canada Agricultural Products Act* and the *Fresh Fruit and Vegetable Regulations*. CFIA also has

4 <http://laws.justice.gc.ca/en/C-0.4/index.html> (current to January 25, 2010)

5 <http://laws.justice.gc.ca/eng/C.R.C.-c.285/index.html> (current to January 25, 2010)

6 <http://www.inspection.gc.ca/english/fssa/frefra/safsal/sprointe.shtml>

7 <http://www.inspection.gc.ca/english/fssa/frefra/safsal/minproe.shtml>

8 <http://laws.justice.gc.ca/eng/P-14.8/index.html> (current to January 25, 2010)

9 <http://laws.justice.gc.ca/eng/SOR-95-212/index.html> (current to January 25, 2010)

10 <http://laws.justice.gc.ca/eng/P-9.01/index.html> (current to January 25, 2010)

11 <http://laws.justice.gc.ca/eng/SOR-2006-124/index.html> (current to January 25, 2010)

12 <http://www.hc-sc.gc.ca/cps-spc/pest/protect-protoger/food-nourriture/mrl-lmr-eng.php>

13 [www.hc-sc.gc.ca/fn-an/index-eng.php](http://www.hc-sc.gc.ca/fn-an/index-eng.php) Health Canada also operates, in English and French, the Government of Canada's Web site for consumers on food safety and other health issues at [www.healthy Canadians.gc.ca/index-eng.php](http://www.healthy Canadians.gc.ca/index-eng.php)

14 [www.inspection.gc.ca/english/fssa/fssae.shtml](http://www.inspection.gc.ca/english/fssa/fssae.shtml)

## CANADA – CASE STUDY

THE MAIN CANADIAN LEGISLATION COVERING FOOD SAFETY IS THE FOOD AND DRUGS ACT WHICH PROHIBITS THE MANUFACTURE OR SALE OF ALL DANGEROUS OR ADULTERATED FOOD PRODUCTS ANYWHERE IN CANADA.

its own Act, the Canadian Food Inspection Agency Act<sup>15</sup>, which sets out its powers and responsibilities. It dates from 1997. The Agency was created in the first wave of food safety reform in the 1990s as a special operating agency of the government bringing together the oversight, inspection and enforcement branches of the then-departments of agriculture, fisheries, health, industry and consumer affairs with respect to food, animal health and plant health. It was, in 1997, a unique institution and has been replicated in a number of other countries as a result.

CFIA has jurisdiction over food in interprovincial trade, imports and exports. With respect to its food safety mandate, CFIA:

- Designs, develops and manages inspection-related programs and service standards, including supplying laboratory support;
- Negotiates partnerships with other levels of government, as well as industry and trading partners, with respect to inspection and compliance programs; and,
- Supplies laboratory support for inspection, compliance and quarantine activities.

CFIA also administers two voluntary programs relevant to produce food safety:

- National On-Farm Food Safety Recognition Program<sup>16</sup> – a process developed with input from the provincial governments and industry to review, assess, recognize and monitor the technical soundness and administrative effectiveness of on-farm food safety systems developed and implemented by Canada's national producer organizations. This program started in 2002 and is fully operational. Applicant programs are subject to two rigorous technical reviews. The first explores the technical soundness of the program requirements against criteria consistent with the Codex Hazard Analysis and Critical Control Point (HACCP) principles. The second is a review of the program's management system against criteria based, in large part, on ISO requirements. These are followed by an implementation assessment prior to recognition. Regular updates of the program requirements and monitoring of the program's implementation are mandated.
- National Post-Farm Food Safety Recognition Program – a companion program to the above for industry-led, HACCP-based schemes developed for post-farm segments of the supply chain. This program was launched in March 2010.

**The Pest Management Regulatory Agency<sup>17</sup>** (PMRA) at Health Canada registers the use of agricultural chemicals and establishes acceptable residue levels in food by setting maximum residue limits, known as MRLs. Canadian MRLs apply to residues on both domestic and imported fruits and vegetables.

### 2.3 Oversight and Conformity Assessment

The Canadian Food Inspection Agency monitors fresh fruits and vegetables that are imported and domestically grown and traded under federal standards. CFIA's activities include:

- Inspecting products for their safety and wholesomeness;
- Verifying compliance with the federal grade, packaging and labeling requirements; and
- Supporting orderly marketing to provide fairness in the marketplace.

<sup>15</sup> <http://laws-lois.justice.gc.ca/en/C-16.5>, current as of May 28, 2010

<sup>16</sup> [www.inspection.gc.ca/english/fssa/polstrat/reco/recoe.shtml](http://www.inspection.gc.ca/english/fssa/polstrat/reco/recoe.shtml)

<sup>17</sup> [www.hc-sc.gc.ca/cps-spc/pest/index-eng.php](http://www.hc-sc.gc.ca/cps-spc/pest/index-eng.php)

## CANADA – CASE STUDY

THE CANADIAN FOOD INSPECTION AGENCY MONITORS FRESH FRUITS AND VEGETABLES THAT ARE IMPORTED AND DOMESTICALLY GROWN AND TRADED UNDER FEDERAL STANDARDS.

The Agency also conducts a national program<sup>18</sup> to monitor chemical residue levels on domestic and imported fresh fruits and vegetables. Approximately 10,000 samples are analyzed annually in the program's three (3) phases:

- Monitoring through the random sampling of a predefined population of fresh fruits and vegetables to detect potential violations (If the samples are found to be in violation of established MRLs, the product is put under the surveillance phase);
- Surveillance to confirm presumptive positive results and identify suspected problems; and,
- Compliance, which involves the removal of contaminated product from the marketplace.

Samples for the residue program are sent to accredited labs and analyzed for more than 260 chemicals (multi-residue analysis). If needed, additional tests can be used with the specific analytical protocol to test for a specific chemical. Residue levels found in excess of the established limits are confirmed by additional techniques such as mass spectrometry.

### 3.0 LEGAL REQUIREMENTS

#### 3.1 General Food Safety Requirements

*The Food and Drugs Act*, which covers intraprovincial, interprovincial import and in some cases export products, sets out the basic food safety requirements in Sections 4.1 and 4.2:

*4(1) No person shall sell an article of food that*

- (a) has in or on it any poisonous or harmful substance;*
- (b) is unfit for human consumption;*
- (c) consists in whole or in part of any filthy, putrid, disgusting, rotten, decomposed or diseased animal or vegetable substance;*
- (d) is adulterated; or*
- (e) was manufactured, prepared, preserved, packaged or stored under unsanitary conditions.*

*4 (2) A food is not adulterated for the purposes of paragraph (1)(d)*

- (a) by an agricultural chemical or its components or derivatives, if the sale of the food is subject to an interim marketing authorization issued under subsection 30.2(1) and the amount of the agricultural chemical and the components or derivatives, singly or in any combination, in or on the food does not exceed the maximum residue limit that is set out in the authorization;*
- (b) by a veterinary drug or its metabolites, if the sale of the food is subject to an interim marketing authorization issued under subsection 30.2(1) and the amount of the veterinary drug and the metabolites, singly or in any combination, in the food does not exceed the maximum residue limit that is set out in the authorization; and*
- (c) by a pest control product as defined in subsection 2(1) of the Pest Control Products Act, chapter 28 of the Statutes of Canada, 2002, or its components or derivatives, if the amount of the pest control product or the components or derivatives in or on the food being sold does not exceed the maximum residue limit specified under section 9 or 10 of that Act.*

<sup>18</sup> Reports for the program can be found at: [www.inspection.gc.ca/english/fssa/microchem/resid/reside.shtml](http://www.inspection.gc.ca/english/fssa/microchem/resid/reside.shtml)

## CANADA – CASE STUDY

THE CANADIAN PRODUCE MARKETING ASSOCIATION DEVELOPED THE REPACKING AND WHOLESALE FOOD SAFETY PROGRAM FOR USE BY REPACKERS OR PRODUCE WHOLESALEERS OF FRESH FRUITS AND VEGETABLES.

Canada does not have a generic set of mandatory food safety requirements comparable to those set out in 21 CFR Part 110: *Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food in the United States*. However, the Canadian Food Inspection System Implementation Group, a federal/provincial/territorial government initiative, has published the *General Principles of Food Hygiene Code of Practice*<sup>19</sup> (First Edition, June 18, 2004). This is a voluntary guidance document based on the Codex document of the same name and developed to cover Canadian expectations.

The federal government has a similar document, which is now being revised. In late 2009, CFIA circulated for comment a draft *Guide to Food Safety*. Its purpose is provide the Canadian food industry with guidance on the design, development and implementation of effective food safety systems to be used for the importation, production, storage and handling of food products. The Guide outlines basic establishment and hygiene operational requirements and offers information on the identification and management of food safety hazards. It also outlines the maintenance of records to enhance response time and recall capacity of potentially unsafe food products. There is an expectation that this new Guide will be published in 2010. However, it is not intended to replace existing regulations or directives that may be more appropriate to specific food products.

### 3.2 Primary Production

The food safety provisions of Section 4 of the *Food and Drugs Act* apply to primary production, including fresh produce production. In addition, there are sections of the *Fresh Fruit and Vegetable Regulations*, which cover interprovincial shipment and importation of fresh produce and in some cases the exportation of specified products, that deal with food safety. These include, under Part I.1 Health and Safety, Sections 3.1 and 3.2:

*3.1 (1) Subject to subsection (2), no person shall market produce in import, export or interprovincial trade as food unless it*

- (a) is not adulterated;*
- (b) is not contaminated;*
- (c) is edible;*
- (d) is free of any live insect, scorpion, snake, spider or other living thing that may be injurious to health;*
- (e) is prepared in a sanitary manner;*
- (f) where irradiated, is irradiated in accordance with Division 26 of Part B of the Food and Drug Regulations;*
- (g) meets all other requirements of the Food and Drugs Act and the Food and Drug Regulations with respect to the produce; and*
- (h) meets the requirements of the Plant Protection Act and the Regulations made under that Act.*

*(2) No person shall mix produce that is adulterated or contaminated with other produce of the same kind that is not adulterated or contaminated in order that the produce meet the requirements of paragraphs (1)(a) to (h).*

*(3) [Repealed, SOR/95-475, s. 2]*

*(4) For the purposes of paragraph (1)(e), “prepared in a sanitary manner” includes preparation in such a manner that*

- (a) no stagnant or polluted water is used in the washing or fluming of the produce;*
- (b) only potable water is used in the final rinsing of the produce to remove any surface contaminant before packing;*
- (c) the final rinse water, if reused, is used only in the initial washing or fluming of the produce; and*
- (d) the produce is handled with equipment that is cleaned regularly.*

<sup>19</sup> [www.cfis.agr.ca/english/regcode/gpfl/gpflh\\_e.pdf](http://www.cfis.agr.ca/english/regcode/gpfl/gpflh_e.pdf)

## CANADA – CASE STUDY

CANADIAN PACKINGHOUSES AND OTHER PRODUCE HANDLERS ARE ALSO SUBJECT TO SECTION 4 OF THE FOOD AND DRUGS ACT, AND SECTIONS 3.1 AND 3.2 OF THE FRESH FRUIT AND VEGETABLE REGULATIONS.

*3.2 Produce that is adulterated or contaminated may be marketed in import, export or interprovincial trade as animal food if it is*

- (a) fit for use as animal food;*
- (b) labelled with the words “animal food” and “aliments pour animaux”;*
- (c) prepared separately from produce intended for use as food; and*
- (d) where appropriate, treated to give it the appearance of being inedible.*

### 3.3 Packers and Handlers

Packinghouses and other produce handlers are also subject to Section 4 of the *Food and Drugs Act*, and sections 3.1 and 3.2 of the *Fresh Fruit and Vegetable Regulations*. In addition the regulations contain provisions relating to inspection, establishment registration, facilities, hygiene, etc. as follows:

**Section 40** Inspection makes provision for produce inspection for the purpose of compliance under various sections of the Regulations (mostly pertaining to grades) and for the purpose of exporting onions, potatoes or field tomatoes to the United States or Puerto Rico;

**Section 56** provides for the registration of an establishment; **Sections 59 and 60.1** set out the requirements with respect to a building that is a registered establishment:

**59** *Every registered establishment that is a building shall be situated on land that*

- (a) provides or permits good drainage; and*
- (b) is not in proximity to any source of pollution or any place that harbours insects, birds, rodents or other vermin that are likely to contaminate produce in the establishment.*

**60.1** *(a) be of sound construction and in good repair;*

- (b) be constructed of material that is durable and free of any noxious constituent;*
- (c) be separate from and have no direct access to areas in which are carried out operations that are incompatible with the handling of produce;*
- (d) be protected against the entry of insects, birds, rodents and other vermin or anything that is likely to contaminate produce;*
- (e) have no room in the establishment open onto premises used for the manufacture or storage of anything that is likely to emit an odour that could affect the flavour of produce;*
- (f) have suitable facilities and equipment for the grading and handling of produce;*
- (g) have areas with temperature, light and ventilation that are suitable for the preservation of produce;*
- (h) have lighting over the grading equipment that provides a minimum illumination of 550 lx as measured by photometer at the surface of the produce that is being graded;*
- (i) be equipped, in those areas where produce or packaging materials are exposed, with light bulbs and fixtures that are of a type that will not cause contamination of produce in the event of breakage;*
- (j) have facilities for the use of inspectors that meet the conditions set out in paragraphs 41(1)(a) and (b);*
- (k) have available to its employees lavatories that are*
  - (i) capable of being kept in a clean and sanitary condition,*
  - (ii) adequate in size and equipment for the number of people using*



*them,*

*(iii) well lighted and ventilated, and*

*(iv) separate from and not leading directly into any room used for handling produce;*

*(l) be supplied with potable hot and cold water that is protected against contamination and is adequate in quantity and pressure to serve the water needs of the establishment;*

*(m) have adequate facilities and means for the cleaning of equipment; and*

*(n) have adequate means of drainage, waste removal and waste disposal.*

*(2) In a registered establishment, water other than potable water may be used for fire protection and auxiliary services, including the washing of soil from raw produce and the fluming of raw produce, if there is no connection between the system for that water and the system for potable water.*

**Section 61** sets out requirements vis-à-vis the operation and maintenance of a registered establishment, including:

*(2) The operation of a registered establishment and the preparation of produce in a registered establishment shall be carried out under the supervision of a competent, responsible employee designated by the operator of the establishment on the application for registration.*

*(3) The building, equipment and all other physical facilities of a registered establishment shall be maintained in a sanitary condition.*

*(4) Operations in relation to the preparation of produce in a registered establishment shall be carried out in a sanitary manner.*

*(5) A registered establishment shall have notices posted in prominent places instructing employees engaged in the preparation of produce to clean their hands immediately after using toilet facilities and that smoking is prohibited.*

*(6) Refuse that is likely to attract insects, birds, rodents or other vermin to a registered establishment must be removed daily.*

*(7) Any detergent, sanitizer or other chemical agent in a registered establishment shall be properly labelled and shall be stored and used in a manner that prevents contamination of produce or a surface with which produce comes into contact.*

*(8) No produce in a registered establishment shall be exposed to a source of contamination.*

*(9) Nothing that is likely to emit an odour that could affect the flavour of produce shall be kept in a registered establishment.*

*(10) Bulk and packaged produce in a registered establishment shall be stored or held in clean areas, under conditions of temperature, light and ventilation that are suitable for the preservation of the produce.*

*(11) No person who suffers from or is a known carrier of a communicable disease or who has an infected lesion that is open or exposed shall work in any area of a registered establishment where there is a danger of contamination with pathogenic micro-organisms of the produce or the surface with which the produce comes into contact.*

*(12) All persons engaged in the preparation of produce in a registered establishment shall clean their hands thoroughly immediately after using toilet facilities and as frequently as is necessary to prevent the contamination of produce.*

*(13) All produce shipped interprovincially from a registered establishment shall be prepared in that establishment in accordance with these*

## CANADA – CASE STUDY

CANADA DOES NOT HAVE MANDATORY TRACEABILITY REQUIREMENTS FOR FRESH PRODUCE.

*Regulations.*

- (14) *The owner or operator of a registered establishment shall*
- (a) *maintain accurate records of produce shipments from the establishment by kind and grade of produce and size of container, date of shipment and number of containers shipped; and*
  - (b) *retain those records for the two years following the date of each shipment.*
- (15) *The operator of a registered establishment shall, when if requested to do so by an inspector, comply with the requirements of paragraphs 41(1)(c) to (e).*
- (16) *The owner or operator of a registered establishment shall notify the Director of any changes in the operations or personnel of the establishment that might affect the registration of the establishment, within 30 days after those changes are made.*
- (17) *The owner or operator shall maintain in the registered establishment a file containing samples of all labels marked with the establishment registration number as shown in Schedule IV and shall, on the request of an inspector, submit the file to the inspector for inspection.*

**Section 62** exempts “registered establishments where produce is field-packed for direct shipment” from the requirements of Sections 59 and 60 and subsections 61(3), (6) and (10).

### 3.4 Exporters

*The Food and Drugs Act, Food and Drug Regulations, Fresh Fruit and Vegetable Regulations and the Licensing and Arbitration Regulations, with some exceptions, do not apply to exporters or shipments for export. For fresh products falling under the Fresh Fruit and Vegetable Regulations there are no grade requirements to export. However, USDA requires onions, potatoes, peppers and tomatoes destined for the U.S. including Puerto Rico to be inspected and certified to meet their phytosanitary import requirements. A CFIA<sup>20</sup> inspection certificate is honored by USDA.*

### 3.5 Traceability

Canada does not have mandatory traceability requirements for fresh produce. Government and industry have jointly developed the Canadian Food Traceability Data Standard<sup>21</sup> (CFTDS) version 2 2006 or Can-Trace Standard, which is now maintained by GS1 Canada. Federal and Provincial/Territorial Ministers of Agriculture have also endorsed the development of a National Agriculture and Food Traceability System (NAFTS) to meet government, industry and consumer needs. NAFTS is being phased in with the current priority being the livestock and poultry sectors. To assist industry sectors in funding the development and implementation of traceability systems based on the principles of NAFTS, the federal government has established the Canadian Industry Traceability Infrastructure Program (CITIP)<sup>22</sup>.

<sup>20</sup> [www.inspection.gc.ca/english/fssa/frefra/cdnreqe.shtml](http://www.inspection.gc.ca/english/fssa/frefra/cdnreqe.shtml)

<sup>21</sup> [www.can-trace.org/portals/0/docs/CFTDS version 2.0 FINAL.pdf](http://www.can-trace.org/portals/0/docs/CFTDS%20version%20FINAL.pdf)

<sup>22</sup> [www.agr.gc.ca](http://www.agr.gc.ca)

## CANADA – CASE STUDY

CANADAGAP IS A NATIONAL, HACCP-BASED, ON-FARM FOOD SAFETY PROGRAM OWNED AND ADMINISTERED BY THE CANADIAN HORTICULTURAL COUNCIL

## 4.0 PUBLIC AND PRIVATE FOOD SAFETY CERTIFICATION PROGRAMS OPERATING IN CANADA

The development of national industry-led on-farm food safety programs<sup>23</sup> began in the early 1990s about the same time that HACCP was being introduced into the fish, meat and poultry processing sectors<sup>24</sup>. In the mid-1990s the on-farm programs adopted a HACCP-based approach that incorporated the Codex Alimentarius Commission's HACCP principles and the generic model development tool-kit developed by Agriculture and Agri-Food Canada and refined by the Canadian Food Inspection Agency. In 1997, a cost-shared funding program was negotiated by the leading farm organization, the Canadian Federation of Agriculture, with Agriculture and Agri-Food Canada. Under the program, CFIA would provide technical assistance to national organizations developing commodity-specific on-farm food safety standards and certification programs. The result has been the development of 22 national commodity-specific HACCP-based on-farm food safety programs covering 99 percent of Canadian agricultural production. A project to develop a program for the growers, packers and storage intermediaries of fresh produce was launched in 1997. In 2000, following the early success of the on-farm program, AAFC launched a similar program to assist national associations for other, non-farm segments of the supply chain in developing HACCP-based food safety programs for their members. There have been 14 national programs developed under this initiative, including one for the repackers and wholesalers of fresh produce.

In the Canadian context, a HACCP-based program is one

*Where the hazard analysis is generic (i.e. covers all producers or users in a given sector or commodity) and results in a list of commonly accepted hazards (biological, chemical & physical) and related controls that are then translated into a series of prerequisite programs (e.g. good agricultural practices (GAPs), good manufacturing practices (GMPs), etc) and critical control points (CCPs) to which users shall adhere*

As noted above (Section 2.2), CFIA with the agreement of the provinces and territories has established programs to recognize these national, industry-led food safety programs. They must meet rigorous criteria related to their technical soundness and administrative effectiveness.

## 4.1 CANADAGAP

CanadaGAP<sup>25</sup> is a national, HACCP-based, on-farm food safety program owned and administered by the Canadian Horticultural Council<sup>26</sup>. CHC is a voluntary, not-for-profit, national association whose members – provincial and national commodity organizations – represent the more than 20,000 Canadian producers who are involved in the production and packing of over 120 horticulture crops comprised of fruits, vegetables, flowers and ornamental plants.

The CanadaGAP program covers the primary production, primary packing and storage segments of the fresh produce supply chain.

The program is developed around six (6) commodity groupings. For each grouping a generic hazard analysis was conducted by a team of growers, academics and other experts using the

<sup>23</sup> The Canadian programs are food safety programs. Environmental issues are covered by provincial regulatory requirements and by the voluntary environmental farm plans developed by primary producers. Labor requirements are covered by regulations in each province.

<sup>24</sup> For a short description of this approach, see submission of the Canadian Supply Chain Food Safety Coalition to the Subcommittee on Food Safety of the Standing Committee on Agriculture of the House of Commons (June 8, 2009) at: <http://www2.parl.gc.ca/HousePublications/Publication.aspx?DocId=3968149&Language=E&Mode=1&Parl=40&Ses=2>

<sup>25</sup> [www.canadagap.ca](http://www.canadagap.ca)

<sup>26</sup> [www.hortcouncil.ca](http://www.hortcouncil.ca)



CFIA-approved “tool-kit” (a modified set of HACCP forms based on those developed for the Agency’s Food Safety Enhancement Program). The result of each was a generic model and a set of requirements. The six modules<sup>27</sup> cover:

- Combined Vegetable, Version 4.0 (2010)
  - Asparagus, Sweet Corn and Legumes
  - Bulb and Root Vegetables
  - Fruiting Vegetables
- Greenhouse Production, Version 4.0 (2010)
- Leafy Vegetable and Cruciferae, Version 4.0 (2010)
- Potato, Version 5.2 (2010)
- Small Fruit, Version 4.0 (2010)
- Tree and Vine Fruit, Version 4.1 (2010)

Each of the modules includes the following good practices (GAPs, GMPs) for producers, packers and storage intermediaries:

- Commodity starter products;
- Premises;
- Commercial fertilizers, pulp sludge and soil amendments;
- Manure;
- Compost;
- Mulch and Row Cover Materials;
- Agricultural Chemicals;
- Agricultural Water;
- Equipment;
- Cleaning and Maintenance Materials;
- Waste Management;
- Personal Hygiene Facilities;
- Facilities;
- Employee Training;
- Employee illness;
- Visitor Policy;
- Pest Control;
- Pets;
- Water for Fluming and Cleaning;
- Ice;
- Packaging Materials;
- Growing and Harvesting;
- Sorting, Grading and Packing;
- Storage of Product;
- Transportation (on and off farm);
- Identification and Traceability;
- Recall;
- Deviations and Crisis Management;
- On-Farm Food Safety Program Review; and
- Record-Keeping.

For traceability, CanadaGAP requires record-keeping that covers input information, field identification, harvest information, storage location, truck identification (off-site shipment), product identification (date, packaging, Lot/Pack), etc. Some users are also implementing the Produce Traceability Initiative<sup>28</sup> in response to market demands.

<sup>27</sup> [www.canadagap.ca/uploads/file/English/Tools/Six\\_Crop\\_Groupings\\_May09\\_Eng.pdf](http://www.canadagap.ca/uploads/file/English/Tools/Six_Crop_Groupings_May09_Eng.pdf)

<sup>28</sup> [www.produceTraceability.org](http://www.produceTraceability.org)

## CANADA – CASE STUDY

CANADAGAP ALSO OPERATES AN AUDITOR TRAINING PROGRAM THAT MEETS THE REQUIREMENTS OF THE NATIONAL ON-FARM FOOD SAFETY RECOGNITION PROGRAM AND GFSI BENCHMARKING.

CanadaGAP has several certification options. These are designed to meet a range of market demands set by retailers, especially for small growers serving limited numbers of stores, the requirements of the CFIA recognition program and the requirements of the GFSI or the GlobalGAP benchmarking schemes. There are three (3) certification options for individual farms (A1, A2 and C) and two (2) options for groups (A3 and B):

**Option A1 – Individual Farm - Four-Year Audit Cycle:** This option was designed to meet the basic requirements of the National On-Farm Food Safety Recognition Program. It involves audit activity during each year, including:

- An initial on-site certification audit by a third-party certification body;
- A follow-up on-site audit every four (4) years by a third-party certification body;
- The submission of sworn supplier declarations and self-assessment checklists for review by the certification body in each of the intervening three (3) years; and
- Random audits by the third-party certification body of a sample of farms each year.

**Option A2 – Individual Farm - Four-Year Audit Cycle:** This option is basically the same as Option A1, except that if the farm is selected for a random audit after the first year, then the four-year certification cycle is restarted.

**Option A3 – Group Certification - Four-Year Audit Cycle:** In this option, the group (e.g. co-operative) must have in place an internal management system that meets the CanadaGAP criteria and permits it to act as the “certification body”<sup>29</sup>. The group must audit, using its own internal auditors, 25 percent of the group each year, meaning all the farms over four (4) years. In each year a farm is not audited, it must submit a sworn supplier declaration and self-assessment checklist to be reviewed by group auditors. The group must conduct an annual internal audit of its management system and every three (3) years, the group must undergo an audit of its group management system, central facilities and a sampling of farms by a third-party certification body.

**Option B – Group Certification:** This option is based on the GlobalGAP Group option and was designed to meet GFSI requirements. The group must:

- Have an internal management system;
- Conduct annual internal management system audits;
- Have its management system audited annually by a third-party certification body;
- Conduct annual internal audits of all farms and central facilities (e.g. packing and storage); and,
- Have a third-party certification body annually audit a random sample of group members and central facilities.

**Option C – Individual Farms:** This option is also designed to meet GFSI requirements. Each farm, packinghouse and storage facility must be audited annually by a third-party certification body.

CanadaGAP also operates an auditor training program that meets the requirements of the National On-Farm Food Safety Recognition Program and GFSI benchmarking.

<sup>29</sup> The CanadaGAP criteria are simpler than the requirements for an accredited third-party certification body.

## CANADA – CASE STUDY

MUSHROOMS CANADA WAS FOUNDED IN 1955 AS A VOLUNTARY, NONPROFIT ORGANIZATION WITH A MEMBERSHIP THAT INCLUDES MUSHROOM GROWERS, PROCESSORS, SPAWN MAKERS, SUPPLIERS, SCIENTISTS AND OTHER ALLIED INDUSTRIES.

In 2008, CHC entered into a sole-source agreement with QMI-SAI Global to provide certification services for the launch of the CanadaGAP program. In the province of Quebec, QMI-SAI Global has an operating agreement with Gestion Qualiterra to provide audit services. In 2010, CHC opened negotiations for licensing agreements with additional certification bodies consistent with the requirements for GFSI benchmarking. As of April 2010, it now has agreements with QMI-SAI Global and with the Guelph Food Technology Centre. All CanadaGAP licensed certification bodies are required to be accredited by a member organization of the International Accreditation Forum (IAF) under ISO Guide 65. Pursuant to GFSI requirements, CHC has established relationships pertaining to accreditation with ANSI (American National Standards Institute) and the Standards Council of Canada.

As of April 23, 2010, the QMI-SAI Global registry included certifications for 585 farms. Of these, 557 were certified to the “CHC OFFS” program and 25 were certified to the CHC potato program. The potato program was the first module released by CHC for certification to meet the demand of Canadian potato processors. Farms certified to its version 5.0 are transitioning during 2010 to the new version of the CanadaGAP program.

All six (6) of CanadaGAP’s commodity group modules have completed Technical Review Part 1 (technical soundness) of the National On-Farm Food Safety Recognition Program. The program has not yet submitted its management system for Technical Review Part 2.

In 2009, CanadaGAP applied for benchmarking by both GFSI and GlobalGAP. It opted to complete the GFSI process first, and GFSI in May 2010 recognized the CanadaGAP program (Certification Options B and C) as one of two schemes<sup>30</sup> specifically designed for fresh fruit and vegetable growers, packers and storage intermediaries. It is reported that CanadaGAP will proceed with GlobalGAP benchmarking later in 2010.

Canadian retailers, food-service companies and processing companies have recognized the CanadaGAP program. The largest national retailer, Loblaws, is requiring its fresh produce suppliers to implement CanadaGAP or its equivalent.

#### 4.2 Mushrooms Canada On-Farm Food Safety (OFFS) Program

Mushrooms Canada<sup>31</sup> was founded in 1955 as a voluntary, nonprofit organization with a membership that includes mushroom growers, processors, spawn makers, suppliers, scientists and other allied industries. It has developed the Mushrooms Canada On-Farm Food Safety Program as a HACCP-based certification scheme that is consistent with the requirements of the National On-Farm Food Safety Recognition Program and CFIA’s Food Safety Enhancement Program (FSEP).

The program covers mushrooms of all types, except those wild crafted, through all phases of mushroom production from raw materials through compost/substrate production, growing and harvesting, packing, storage and shipping.

<sup>30</sup> The other produce-specific schemes, as of May 2010, are GlobalGAP’s Fruits and Vegetables module and PrimusGFS (which also covers manufacturing). A third scheme benchmarked by GFSI for primary agriculture is SQF 1000. It is used by fresh produce grower/packers as well. [www.mygfsi.com/about-gfsi/gfsi-recognised-schemes.html](http://www.mygfsi.com/about-gfsi/gfsi-recognised-schemes.html)

<sup>31</sup> [www.mushrooms.ca](http://www.mushrooms.ca) Formerly the Canadian Mushroom Growers Association.

## CANADA – CASE STUDY

THERE IS A FOUR (4)-YEAR CERTIFICATION CYCLE THAT STARTS WITH A FULL AUDIT AND INVOLVES PARTIAL AUDITS IN YEARS 2, 3 AND 4. MUSHROOMS CANADA ISSUES THE CERTIFICATES BASED ON THE RESULTS OF THE AUDITS CONDUCTED BY A THIRD PARTY.

As a HACCP-based program, its documentation, which is available to growers in both English and French, includes a generic model (hazard analysis), requirements, record-keeping templates, audit checklists, etc. The program requires growers to develop an on-site program with the following:

- Prerequisite Programs for:
  - Premises
  - Transportation and Storage
  - Equipment
  - Personnel and Training
  - Sanitation and Pest Control
  - Recall
- HACCP Plan(s) for:
  - Mushroom Packing
  - Mushroom Growing and Harvesting
  - Substrate Phase II and III
  - Substrate Phase I

The program requires a firm to have a basic traceability program in place that includes proper labeling and record-keeping to facilitate recall or product withdrawal.

As of May 2010, Mushrooms Canada is operating a certification scheme in conjunction with third-party audit firms. There is a four (4)-year certification cycle that starts with a full audit and involves partial audits in years 2, 3 and 4. Mushrooms Canada issues the certificates based on the results of the audits conducted by a third party. Auditing is done by the Guelph Food Technology Centre's audit-services group. As noted above, GFTC is accredited by ANSI as a certification body under ISO Guide 65 for various food safety schemes (e.g. CanadaGAP, SQF). The Mushrooms Canada audits are outside of its accreditation scope at this time.

As of May 2010, 25 of the estimated 40 commercial mushroom growers in Canada participated in the program and they represent about 80 percent of total commercial production.

The Mushrooms Canada food safety program is recognized by major Canadian and U.S. customers including retailers, food-service distributors and restaurant chains. The organization has indicated<sup>32</sup> that it is in the process of enhancing the program to meet GFSI's benchmarking requirements and that it plans to seek recognition under the National On-Farm Food Safety Recognition Program during 2010.

#### 4.3. Good Agriculture and Collection Practices (GACP): Safety, Quality Assurance and Traceability for the Canadian Herb, Spice and Natural Health Products Industry

This on-farm food safety program, developed by the Canadian Herb, Spice and Natural Health Products Coalition<sup>33</sup>, launched in 2009. Prior to initiating program development, the Coalition and the Canadian Horticultural Council entered into a memorandum of agreement that clearly identifies the commodities covered by each organization's OFFS program. The GACP Program covers: spices (primarily seed spices), culinary herbs (greenhouse and field grown), some specialty root crops (primarily for the medicinal market) and wild harvested foods (e.g. mushrooms, berries, fiddleheads, etc.).

The program includes primary production, some processing (e.g. drying, etc.), storage and packing.

<sup>32</sup> Personal email communication May 3, 2010.

<sup>33</sup> [www.saskherbspice.org/CHSNC/](http://www.saskherbspice.org/CHSNC/)

## CANADA – CASE STUDY

THE GACP PROGRAM COMPLETED TECHNICAL REVIEW PART 1 (TECHNICAL SOUNDNESS) OF THE NATIONAL ON-FARM FOOD SAFETY RECOGNITION PROGRAM IN 2009.

Once again it is a HACCP-based food safety and traceability program that has been developed to meet the requirements of the National On-Farm Food Safety Recognition Program. It has also been designed to be consistent with the expectations for the implementation of GAPs by suppliers (e.g. farms) to establishments covered by Natural Health Products (NHP) Regulations<sup>34</sup>.

In consideration of the environmental issues related to endangered or at-risk species, these are covered by the program. Also taken into consideration are Access Benefit Sharing issues with First Nations communities, Organic operations and their specific needs were taken into consideration when developing the program as many producers are certified organic or use no chemical pesticides<sup>35</sup> in their operations. The program includes a requirement for risk-assessment evaluations of “Places, Plants and People.” As a result, many labor issues are addressed under the people risk-assessment segment. And, consistent with the other Canadian programs, other labor requirements are covered by regulations in each province.

In food safety, GACP Program requirements (GAPs) cover:

- Plant/Product Identification;
- Pest Control Products Purchase, Storage, Handling and Application;
- Purchasing;
- Production (On-Farm and Wild Harvesting);
- Post-Harvest Processing;
- Personnel Training;
- Preventive Maintenance; and
- Record-Keeping.

Traceability is covered in the program at a one-up, one-down level of traceability that is the cornerstone to Plant/Product Identification<sup>36</sup>. More advanced traceability modules are being developed for those with additional needs in that area.

The GACP Program completed Technical Review Part 1 (technical soundness) of the National On-Farm Food Safety Recognition Program in 2009. The Coalition has started an internal benchmarking process to compare its requirements with the practices of EU and WHO GACPs.

As of May 2010, the Coalition had not yet established a third-party certification scheme for users. The program as presently designed will, however, incorporate a self-declaration approach where each enrolled production unit must:

1. Complete the GACP Program training;
2. Complete and submit a risk assessment that must be approved;
3. Complete a work plan based on the risk assessment;
4. Conduct a self-audit and submit the results; and,
5. Provide a self-declaration.

The Coalition would then issue a certificate for one year. In subsequent years, the production unit must complete steps 2 to 5 prior to being issued a new certificate. No certificates had been issued as of May 2010.

<sup>34</sup> [http://www.hc-sc.gc.ca/ahe-asc/branch-dirgen/hpfb-dgpsa/nhpd-dpsn/index\\_e.html](http://www.hc-sc.gc.ca/ahe-asc/branch-dirgen/hpfb-dgpsa/nhpd-dpsn/index_e.html)

<sup>35</sup> It should be noted that very few Pest Control Products are registered in Canada for this segment of the industry.

<sup>36</sup> The Coalition has developed a Guide to good practice in plant identification for cultivated and wild harvested plants. [www.saskherbspice.org](http://www.saskherbspice.org)

## CANADA – CASE STUDY

THE CANADIAN PRODUCE MARKETING ASSOCIATION DEVELOPED THE REPACKING AND WHOLESALE FOOD SAFETY PROGRAM FOR USE BY REPACKERS OR PRODUCE WHOLESALERS OF FRESH FRUITS AND VEGETABLES.

#### 4.4 Repacking and Wholesale Food Safety Program (RWFS)

The Canadian Produce Marketing Association<sup>37</sup> developed the Repacking and Wholesale Food Safety Program<sup>38</sup> for use by repackers or produce wholesalers of fresh fruits and vegetables. CPMA is an industry trade association, established in 1925, whose members include major grower/shippers/packers, importer/exporters, carriers, brokers, wholesalers, retailers and food-service distributors. They are responsible for 90 percent of the fresh fruit and vegetable sales in Canada.

The RWFS Program is a HACCP-based food safety program designed to meet the requirements of the National Post-Farm Food Safety Recognition Program and be compatible with CanadaGAP. The program requires the repacker or wholesaler to implement prerequisite programs and to undertake a site-specific analysis using the tool-kit provided by the program to develop a HACCP plan.

The program materials or “tool-kit” were released to the industry in 2005 in English and French versions. They include:

- RWFS Generic HACCP Model (the results of the generic hazard analysis of biological, physical and chemical hazards);
- RWFS Generic HACCP Model Workbook (provides a detailed template for customizing a generic model to a specific repacking and/or wholesale operation);
- RWFS Standard (sets out required GMPs and CCPs based on the generic hazard analysis/model);
- RWFS Standard Workbook (facilitates making the standard operational in a specific repacking and/or wholesale operation); and,
- Log and Record Templates.

The prerequisite programs cover:

- Premises;
- Receiving and Storage;
- Equipment;
- Personal Hygiene and Sanitary Working Procedures;
- Sanitation Program;
- Pest Control Program; and
- Recall and Traceability System.

The RWFS Program requires repackers and wholesalers to establish a traceability program with records of:

- Kind of product;
- Size of container (e.g. Net weight or number of pieces per case);
- Date of shipment;
- Number of containers shipped;
- The destination of the shipment; and
- Transporters used to transport the shipment.

CPMA was a lead participant in the development of the Can-Trace data standard<sup>39</sup>, the North American Produce Traceability Initiative (PTI)<sup>40</sup> and the GS1 - Implementation

<sup>37</sup> [www.cpma.ca](http://www.cpma.ca)

<sup>38</sup> [www.cpma.ca/en\\_food\\_rw\\_program.asp](http://www.cpma.ca/en_food_rw_program.asp)

<sup>39</sup> [www.can-trace.org/portals/0/docs/CFTDS version 2.0 FINAL.pdf](http://www.can-trace.org/portals/0/docs/CFTDS version 2.0 FINAL.pdf)

<sup>40</sup> [www.producetraceability.org](http://www.producetraceability.org)



Guide for Traceability of Fresh Fruits and Vegetables<sup>41</sup>. CPMA encourages its members to implement these voluntary requirements.

CPMA has also developed two online training programs. One is for use by repackers and wholesalers. This modular program permits managers and employees to train on either the whole program or on individual parts. The other program is an auditor training module, with tests, for use by licensed certification bodies and others involved in the audit process (e.g. internal auditors and managers working for repackers and wholesalers, etc.). These online programs have been launched and are being utilized.

CPMA has developed, but not yet implemented, a full management system for the RWFS Program. This system is designed to meet the requirements of the government recognition program and GFSI benchmarking. The system includes a certification component. When implemented, the certification scheme will provide for the licensing of certification bodies accredited to ISO 17021/ISO 22003 and annual audits of certified organizations (repackers and wholesalers).

In April 2010, CPMA entered into an agreement with the Guelph Food Technology Centre (GFTC) to provide interested firms with third-party audits, but not certification, to the RWFS program requirements. Work is continuing on the launch of the full certification scheme as are discussions concerning a proposal to merge the administration of the RWFS Program and CanadaGAP into a new stand-alone organization.

Work is also proceeding on obtaining recognition and benchmarking. CPMA's RWFS Program is scheduled to be the pilot program for the first technical reviews under the new National Post-Farm Food Safety Recognition Program in October 2010. Once this is completed, CPMA is expected to apply for GFSI benchmarking in 2011. In the meantime, Canadian retailers have approved the program in principle and are encouraging repackers and wholesalers to implement it or an equivalent program.

#### 4.5 International Certification Schemes Operating in Canada

Prior to the middle part of the current decade, there has been limited demand by customers for Canadian fresh produce growers, packers, storage intermediaries, repackers or wholesalers to seek certification to a food safety program. Canadian retailers, food-service distributors and operators and foreign customers have tended to rely on second-party audits, not formal certification. As a result, fresh produce companies have utilized various sets of requirements as the basis of their food safety programs. Over the past several years, some firms have also begun to implement international certification schemes including GlobalGAP, SQF, BRC, Primus and DavisFresh with the objective of obtaining certification. Details on the use of these standards by the Canadian fresh produce industry are available in some cases but not others.

<sup>41</sup> [www.gs1.org/sites/default/files/docs/gsmpt/traceability/Global\\_Traceability\\_Implementation\\_Fresh\\_Fruit\\_Veg\\_i1.pdf](http://www.gs1.org/sites/default/files/docs/gsmpt/traceability/Global_Traceability_Implementation_Fresh_Fruit_Veg_i1.pdf)



#### 4.5.1 GlobalGAP<sup>42</sup>

GlobalGAP is a HACCP-based integrated farm assurance scheme. It covers a wide range of products and has a specific module for fruits and vegetables that covers primary production and primary packing. As of April 30, 2010, GlobalGAP reported the following farm certifications for Canada:

- 36 individual farms (Option 1) and
- 14 farms under Option 2 (Group).

Anecdotal evidence suggests that these farms have sought GlobalGAP certification to satisfy their European customers.

As of April 2010, GlobalGAP had licensed five (5) foreign based certification bodies to operate in Canada:

- Bureau Veritas, Canada;
- Control Union Canada;
- Ecocert Canada;
- SAI Global CANADA ; and
- SGS Canada.

#### 4.5.2 SQF (Safe Quality Foods)<sup>43</sup>

SQF 1000 and SQF 2000 are generic HACCP-based food safety programs for primary production and for subsequent stages in the supply chain (e.g. manufacturers, distributors, brokers). As of April 19, 2010, SQF<sup>44</sup> had certificates issued in Canada in the fresh produce sector for:

- Three (3) Primary producers (SQF 1000);
- Ten (10) Packhouses (SQF 1000 or SQF 2000); and,
- One (1) Warehouse/distributor (SQF 2000).

Certification bodies must be licensed by the SQF Institute. SQF has licensing agreements with two accreditation bodies (ANSI in the U.S., JAS-ANZ in Australia) to accredit CBs to the SQF requirements, including ISO Guide 65. JAS-ANZ has accredited three (3) certification bodies with Canada included in their scope:

- SAI Global Certification Services Pty Ltd
- SGS Systems Services Certification Pty Ltd
- Silliker Global Certification Services

ANSI has accredited ten (10) certification bodies to operate globally (e.g. including in Canada):

- AIB International Inc.
- Bureau Veritas Certification North America (BVCNA)
- Det Norske Veritas Certification Inc.
- Eagle Food Registrations Inc.
- Guelph Food Technology Centre (GFTC)
- NCS International Pty Ltd. (NCSI)
- NSF International

<sup>42</sup> [www.globalgap.org](http://www.globalgap.org)

<sup>43</sup> [www.sqfi.com](http://www.sqfi.com)

<sup>44</sup> <https://sqfi.muddyboots.biz/Level1Report/>



## CANADA – CASE STUDY

GLOBALGAP IS A HACCP-BASED INTEGRATED FARM ASSURANCE SCHEME. IT COVERS A WIDE RANGE OF PRODUCTS AND HAS A SPECIFIC MODULE FOR FRUITS AND VEGETABLES THAT COVERS PRIMARY PRODUCTION AND PRIMARY PACKING.

- Scientific Certification Systems Inc.
- The Steritech Group Inc.
- TUV SUD America Inc.

#### 4.5.3 BRC Global Standard for Food Safety <sup>45</sup>

The BRC Global Standard for Food Safety is a HACCP scheme for food manufacturers and its Guideline for Category 5 Fresh Produce provides guidance on interpreting the requirements for fresh produce packers falling into Product Category 5: fruits, vegetables and nuts. As of April 30, 2010, the BRC reported certification of one (1) produce packer in Canada.

The BRC has licensed two (2) certification bodies to operate in Canada:

- Guelph Food Technology Centre; and,
- QMI-SAI Global.

<sup>45</sup> [www.breglobalstandards.com](http://www.breglobalstandards.com)

## CHILE – CASE STUDY

CHILE'S EXPORTS OF FRESH FRUITS HAVE INCREASED FROM 261,000 METRIC TONS IN 1980 TO NEARLY 2.4 MILLION METRIC TONS IN 2008-2009, OR BY NOT QUITE 920 PERCENT.

## 1.0 INTRODUCTION

Chile, as a country, has some unique advantages as a global agricultural producer. It stretches some 4,200 km from north to south covering several climatic zones, including ones that replicate the growing conditions in both California and New Zealand, and its sea and mountain borders form natural barriers sheltering it from pests and disease. As a consequence, Chile has the capacity to produce a variety of fruits that are available almost year round, including table grapes, apples, peaches, plums, nectarines, cherries, berries, kiwi, avocados, etc. It can provide fresh summer fruits to countries in the Northern Hemisphere during their winters and winter fruits during their summers.

These natural conditions have been enhanced by economic policies that have encouraged the development of an export-led agricultural sector. Over the 35 years to 2009, the Chilean fresh produce sector, most particularly the fruit sector, has benefited from economic reforms and trade liberalization initiatives. As a result, the private sector invested significantly in orchards and vineyards, farm-level irrigation systems, cold storage facilities and refrigerated trucks, while the government has invested in large-scale infrastructure projects including irrigation, roads, ports and airports<sup>1</sup>.

These public-sector investments – particularly those in modernizing air and seaport facilities – have created a fast and efficient fruit transportation network. According to a 2007 Organization for Economic and Co-operative Development (OECD) study, about 95 percent of the fruit exported by Chile is shipped by sea in 10 to 12 days and it is almost always sent from farm to port within 24 hours of being picked. The remaining 5 percent of high value fresh fruits is shipped overnight by air.

In this period, Chile's primary agricultural exports have shifted from traditional crops (beans, lentils and wool) to fruits. As exports shifted, the producers quickly diversified into other regions and fruits, moving into the production of pears, peaches, nectarines and other stone fruit, as well as kiwis, berries, avocados, asparagus and mandarins<sup>2</sup>.

Between 1997 and 2007<sup>3</sup> the area devoted to fresh fruit production increased from 93,500 hectares (ha) to 129,000 ha, or by 38 percent. The land devoted to vineyards also increased significantly, by 58 percent. The overall total of arable land declined by about 7.6 percent to just over 2.1 million ha, itself a very small portion of the country's total agricultural area of about 37 million ha.

Chile's 2007 census also identified farm numbers and average sizes. There were some 280,000 farms, of which 10,600 were incorporated enterprises. This number was up by 41 percent from 7,500 in 1997. The average farm size of this group had increased marginally from 835 ha to 860 ha, but the group's total acreage had increased by 45 percent. The number of small, individual farms had declined from 282,000 to 242,000 and that group's total farmed area had declined by nearly 15 percent, although the average farm size remained static at 46 ha.

The OECD in 2007 estimated that over 7,000 commercial fresh fruit producers and more than 500 export firms supply 1,300 importers in more than 70 countries around the world.

Chile's exports of fresh fruits have increased from 261,000 metric tons in 1980 to nearly 2.4 million metric tons in 2008-2009, or by not quite 920 percent<sup>4</sup>. Chile has in this period become the world's largest exporter of grapes and the second largest exporter of kiwis and

1 OECD (2008)

2 OECD (2007a)

3 OECD (2008)

4 For 1980 – OECD (2007a) and for 2008-9 – ASOEX at [www.chileanfreshfruit.com/estadist.shtml](http://www.chileanfreshfruit.com/estadist.shtml)



avocados. Its primary competitors in the Southern Hemisphere are South Africa, Australia, New Zealand and Argentina, and from the South, Chile is the largest exporter of grapes, apples, plums, peaches, nectarines, pears, berries and avocados, and second in kiwis.

The main markets for Chile's fruit exports in 2008-2009 were the United States and Canada (38 percent), Europe (31 percent), Latin America (17 percent), Asia (10 percent) and the Middle East (4 percent)<sup>5</sup>.

Into Europe, the major exports were apples (29.7 percent), grapes (29.3 percent), kiwis (15.5 percent), pears (8.5 percent), plums (4.4 percent), avocados (3.4 percent), nectarines (1.9 percent), oranges (1.5 percent), cherries (0.8 percent), others (2.7 percent) and nuts (2 percent). The total volume of exports in 2008-2009 was 743,000 metric tons.

Into Asia, the major exports in descending order were grapes, apples, plums, lemons, kiwis, cherries, oranges, nectarines, plumcots and pears. The Middle East trade was overwhelmingly in apples (82 percent) with the next largest products being kiwis (5.4 percent), grapes (4.8 percent) and pears (3.5 percent). Into its neighbors in Latin America, Chile shipped nearly equal volumes of apples and grapes, followed by kiwis, pears, plums and avocados.

The U.S. and Canadian markets took mostly grapes, with nearly 53 percent of the volumes, followed by apples and avocados (10 percent each), blueberries (4 percent), plums (3.4 percent), nectarines (3.3 percent), peaches (3.2 percent), lemons (1.9 percent), pears (1.8 percent) and others at 7.6 percent. The Chilean share of U.S. imports of fresh fruit has been estimated by U.S. Department of Agriculture (USDA) at more than 20 percent<sup>6</sup>.

## 2.0 THE NATIONAL FOOD SAFETY REGIME

### 2.1 Food Safety Laws

Chile is in the process of revising its food safety regime. This initiative began early in the last decade. By 2005, the government had identified an approach<sup>7</sup> based, inter alia, on the following:

- Harmonization of national standards with those of the Codex Alimentarius Commission as a means of protecting the health of the population, providing levels of known risk and facilitating trade through mutual recognition and the reduction of barriers;
- Management of emerging food safety risks using risk assessment, management and communication approaches;
- Improving surveillance;
- Adopting a comprehensive and integrated, food chain approach;
- Establishing a new food safety authority – Agencia Chilena para la Inocuidad Alimentaria (ACHIPIA)<sup>8</sup> – modeled on those established in other countries;
- Developing national traceability requirements;
- Improving consumer confidence and knowledge about food safety.

The plans for realizing these objectives were initially set out in a two-year program (2006-2007) where the following initiatives were identified:

5 ASOEX at [www.chileanfreshfruit.com/estadist.shtml](http://www.chileanfreshfruit.com/estadist.shtml)

6 Fruit and Tree Nuts: Trade, USDA ERS Briefing Room, accessed 16/05/10 at [www.ers.usda.gov/Briefing/FruitandTreeNuts/trade.htm](http://www.ers.usda.gov/Briefing/FruitandTreeNuts/trade.htm)

7 [ftp://ftp.fao.org/docrep/fao/meeting/010/af189s.pdf](http://ftp.fao.org/docrep/fao/meeting/010/af189s.pdf)

8 Originally named "Autoridad Chilena de Inocuidad de los Alimentos (ACHIA)" – Web site: [www.achipia.cl](http://www.achipia.cl)

## CHILE – CASE STUDY

THE CHILEAN FRESH PRODUCE SECTOR HAS CONSIDERABLE EXPERIENCE WITH THE IMPLEMENTATION OF GOOD AGRICULTURAL PRACTICES (GAPS OR BPAS) AND GOOD HANDLING PRACTICES.

- New regulations pertaining to HACCP requirements;
- Development of a national food safety policy and a strategic plan;
- Strengthening the government infrastructure related to food safety;
- Continued emphasis on food safety training (HACCP was specifically identified); and,
- Improving laboratory capacity at the local level.

In June 2007, the government of Chile, consistent with these plans, released its first National Food Safety Policy<sup>9</sup>. This document had a time horizon of three years. In May 2009, it released the second version of National Food Safety Policy<sup>10</sup>, this time with a horizon of five years (2010 – 2015).

The 2009 policy is set in the context of another priority of the Chilean government – “Chile’s consolidation as a food-producing nation, in the perspective of becoming a Food Power,” known for “safe and healthy foods.” The policy is described as an “action framework” for the development of a “modern and integrated national food safety system.” It acknowledges the “main achievements and deficits” of the current system and recognizes “the continuous and significant technological changes in the food industry” as well as global trends, consumer expectations, etc.

The policy identified five principles:

1. The right to health protection and safe healthy food;
2. The search for competitive and responsible development;
3. Transparency and participation of stakeholders, including consumers;
4. Decisions based on scientific evidence and sound risk evaluation; and,
5. Fulfillment of international obligations.

Six broad objectives are identified, and for each one a subset of objectives and specific actions are detailed. In total there are 16 sub-objectives and 38 actions<sup>11</sup>.

The current food safety legislation<sup>12</sup> – *Reglamento Sanitario de los Alimentos DTO. N° 977/96* [Food Health Regulation] – dates from 1996 and has been amended a number of times through 2009. This regulation is based in the Health Code (DFL 725/1968) as subsequently amended, which governs all matters relating to the promotion and protection of health in Chile. The Food Health Regulation in Article 1 sets out “the health requirements binding on production, import, processing, packaging, storage, distribution, and sale of food for human consumption, in order to protect the health and nutrition of the population and guarantee the supply of healthy and harmless items” and applies to all persons “associated with, or intervening in, the above processes, as well as the establishments, means of transport and distribution devoted to such ends.”

<sup>9</sup> [http://servicios.minsegapres.gob.cl/consultapublica/doc/Pol\\_nac\\_inocuidad\\_alim.pdf](http://servicios.minsegapres.gob.cl/consultapublica/doc/Pol_nac_inocuidad_alim.pdf)

<sup>10</sup> [www.achipia.cl/prontus\\_inocuidad/site/artic/20090921/asocfile/20090921122318/espanol.pdf](http://www.achipia.cl/prontus_inocuidad/site/artic/20090921/asocfile/20090921122318/espanol.pdf)

The policy is also available in an official English translation at: [www.achipia.cl/prontus\\_inocuidad/site/artic/20090921/asocfile/20090921122318/english.pdf](http://www.achipia.cl/prontus_inocuidad/site/artic/20090921/asocfile/20090921122318/english.pdf)

<sup>11</sup> For further details see the section on Future Challenges in the Summary

<sup>12</sup> *Reglamento Sanitario de los Alimentos DTO. N° 977/96* [as amended to April 2009] [Food Health Regulation] [www.redsalud.gov.cl/portal/url/page/minsalcl/g\\_proteccion/g\\_alimentos/prot\\_inocuidad.html](http://www.redsalud.gov.cl/portal/url/page/minsalcl/g_proteccion/g_alimentos/prot_inocuidad.html)

The regulation is available in English translation at: [www.usdachile.cl/usaeng/doc/tittle%20L.doc](http://www.usdachile.cl/usaeng/doc/tittle%20L.doc)

## CHILE – CASE STUDY

THE MINISTRY OF HEALTH  
– MINISTERIO DE SALUD  
– HAS THE PRIMARY  
RESPONSIBILITY FOR  
FOOD SAFETY UNDER  
THE HEALTH CODE AND  
THE FOOD HEALTH  
REGULATION.

In addition to the Food Health Regulation, Chile has a well-developed set of regulations pertaining to the following areas<sup>13</sup>:

- Hygiene of premises;
- Water management;
- Liquid waste management;
- Solid waste management;
- Nurseries and propagation material handling;
- Plant breeding;
- Worker health and safety;
- Environmental protection;
- Storage and materials handling; and,
- Management of plant protection products.

## 2.2 The Competent Authorities

The **Ministry of Health** – Ministerio de Salud<sup>14</sup> – has the primary responsibility for food safety under the Health Code and the Food Health Regulation. This work is undertaken by several divisions, including the Nutrition Unit, the Health Promotion Unit, the Public Health Policy Division, the Disease Control Division, the Food, Zoonoses and Vectors Department and the Public Health Institute of Chile<sup>15</sup>.

The Ministry is supported in this work by thirteen (13) Regional Health Authorities (SEREMIS) that have responsibility for the delivery of food safety and control inspection, training and other services for businesses and consumers.

The Ministry and the Regional Authorities have a corps of veterinarians, medical personnel, food engineers and inspectors and a network of 21 laboratories<sup>16</sup>.

The **Chilean Food Safety Agency** – *Agencia Chilena para la Inocuidad Alimentaria* (ACHIPIA)<sup>17</sup> – was established in 2005 as an advisory committee to the President of the Republic with the mandate to provide advice “regarding the identification, formulation and implementation of policies, plans, measures and other activities relating to food safety ...” Legislation was introduced in the Chilean Congress in late 2009, with the intent of establishing a firm legislative base for the Agency. However, the legislation did not pass prior to the adjournment of Congress in January 2010 and the regularly scheduled election.

The Agency is composed of senior government officials: the Assistant Secretary of the Presidency, who will preside; the Assistant Secretary of Public Health; the Assistant Secretary of Economy; the Assistant Secretary for Fisheries; the Secretary of Agriculture; and the Director General of International Economic Relations, Ministry of Foreign Affairs.

Its mandate is to:

- Formulate and propose a National Policy for Food Safety and measures, plans and programs for implementation and compliance;
- Serve as a coordinating body for the implementation of national policy and food safety programs, plans and measures;
- Ensure that the foreign policy of Chile, in those matters that are relevant for safety issues and food security, conforms to the National Policy on Food Safety, for that purpose by promoting coordination between the portfolios represented in the Agency, and making the relevant proposals;

<sup>13</sup> For details, see the template for the case study of Chile.

<sup>14</sup> [www.minsal.cl](http://www.minsal.cl)

<sup>15</sup> <ftp://ftp.fao.org/docrep/fao/meeting/010/af189s.pdf>

<sup>16</sup> *Ibid.* Based on 2005 information. The laboratory situation may have changed in 2010 due to earthquake damage.

<sup>17</sup> [www.achipia.cl/prontus\\_inocuidad/site/edic/base/port/home.html](http://www.achipia.cl/prontus_inocuidad/site/edic/base/port/home.html)



- Develop and propose a bill to create a National System for Food Safety and for the Chilean Food Safety Agency;
- Study the national legislation applicable to food safety and to propose the rules and regulations as are necessary for its completion, including rules regarding labeling of foods;
- Serve as a coordinating body of public bodies that have powers associated with safety and food safety, particularly in the preparation of proposed procedural guidelines and technical standards, proposals for Hazard Evaluation Procedures, Monitoring and Inspection and care and control of emergency events associated with food; and,
- Develop and deliver to the President of the Republic an annual report containing an assessment of the performance of the national food safety institutions and recommendations for improvement, and other specific reports required or which emanate from the development of their tasks.

**The Ministry of Agriculture**— Servicio Agrícola y Ganadero (SAG) – has a limited role in food safety for fresh produce and a large role with respect to meat and poultry products. Its primary functions are:

- Certification of agricultural exports, livestock, forestry, wine and seeds;
- Licensing and inspection of imports of products of plants and animal;
- Control and eradication of diseases and pests of economic importance;
- Registration and licensing of forestry and agricultural inputs, including plant protection products and veterinary products;
- Medical diagnosis and analysis of plant and animal product quality and safety, through the laboratory network; and
- Supervision of compliance with health, environmental and quality regulations of inputs and agricultural products.

The Ministry of Health and the Regional Health Authorities are empowered by the Food Health Regulation to:

- Set standards for food safety;
- Require initial and ongoing registration of all food production facilities;
- Issue and withdraw permits for production facilities;
- Make inspections and undertake other compliance activities; and,
- Seize and destroy any lots of food constituting a health hazard.

The responsibility for inspection and supervision of compliance of all registered facilities has been delegated to the Regional Health Authorities under the Food Health Regulation (Article 4). This work is undertaken in accordance with “standards and general instructions” issued by the Ministry of Health. It should be noted, however, that food safety is only one aspect of the work undertaken by these agencies.

The regional authorities are assisted in this work by the laboratories operated by the Public Health Institute of Chile<sup>18</sup> and by laboratories in each region. Private laboratories are recognized to do sanitary and quality analysis for both domestic and exported food by the Health Authority in conjunction with the Public Health Institute under Decree 707/1999 of the Ministry of Health.

For primary agricultural products, the Agricultural and Livestock Service has its own laboratories and accredits private laboratories (approximately 25) to do testing related to pesticides and fertilizers for fresh produce and wines.

<sup>18</sup> [www.ispch.cl](http://www.ispch.cl)

## CHILE – CASE STUDY

FACILITIES MUST MEET DOMESTIC REQUIREMENTS FOR PERMITS (ARTICLE 96), AND ANY PRODUCT THAT DOES NOT MEET CHILEAN STANDARDS, THAT IS TO BE EXPORTED, MUST BE CLEARLY MARKED AND CANNOT BE SOLD IN CHILE (ARTICLE 97).

These government inspection programs and their associated sampling programs are designed to take into account the risk profiles of products and establishments as well as past history of compliance<sup>19</sup>.

### 3.0 LEGAL REQUIREMENTS

#### 3.1 General Food Safety Requirements

Article 102, under Title II of the Food Health Regulations, prohibits “[m]anufacturing, importing, holding, distributing, marketing, or transferring altered, contaminated, adulterated, or falsified food for whatever reason.” Paragraph 1 of Title I of the Food Health Regulation sets out General Principles of Food Hygiene for establishments, which are defined as “places where food products and food additives are produced, processed, preserved, packaged, stored, distributed, sold, and consumed.”

These include requirements for food establishments to have a permit from the local Health Agency (Article 6), which may be issued if the establishment meets certain criteria concerning the premises, the raw materials to be used, the health quality control system, etc. (Article 7). Permits are valid for three (3) years and will be automatically renewable (Article 8). Establishments must be inspected prior to the issuance of a permit (Article 9). The local Health Agency is required to establish a registry (Article 13) of the establishments with permits and to have records of the location, ownership and line of business of each.

The food business is obligated “from the start of operations ... [to] apply general health practices to handling including cultivation, gathering, preparation, processing, packaging, storage, transport, distribution, and sale of food, in order to guarantee a harmless and healthy product” (Article 11) and prohibited from using the permitted site for any other purpose (Article 12).

#### 3.2 Primary Production

Paragraph III of the Food Health Regulations covers “Hygiene requirements in the area of production / collection” and sets the following requirements:

- A prohibition on the use of water in growing, producing or collecting products that “could result in unacceptable concentrations of contaminants in food” (Article 15);
- Protection from “contamination by human, animal, domestic, industrial and agricultural waste whose presence can reach levels which may constitute a risk to health” (Article 16);
- Taking “adequate precautions to ensure that waste products are not used for food or could create a health risk” (Article 17);
- Good practices respecting the construction, maintenance, cleaning, disinfection, storage, etc. of equipment and containers used in collecting and producing food and a prohibition on the use of containers previously used for toxic materials (Article 18);
- The segregation of food that is unfit for human consumption during harvest and processing and its disposal in such a way that does not lead to contamination of products, water or other food materials (Article 19); and,
- The collection and storage of food and/or raw materials under conditions that protect them against contamination and minimize damage and deterioration (Article 20).

<sup>19</sup> <ftp://ftp.fao.org/docrep/fao/meeting/010/af189s.pdf>

## CHILE – CASE STUDY

THE NATIONAL COMMISSION ON GOOD AGRICULTURAL PRACTICES IS A PUBLIC AND PRIVATE INITIATIVE WITH THE MISSION TO ADVISE THE MINISTRY OF AGRICULTURE ON THE FORMULATION OF POLICIES TO INCORPORATE THE CONCEPT OF GOOD AGRICULTURAL PRACTICES IN FARM PRODUCTION PROCESSES.

### 3.3 Packers and Handlers

The requirements for produce packers and handlers are covered, generically, in the following sections of the Food Health Regulation:

- The design and construction of food production facilities (Paragraph IV);
- Facility hygiene (sanitation, pest control, etc.) (Paragraph V);
- Personal hygiene (Paragraph VI); and,
- Hygiene for food processing (Paragraph VII).

The later sets out requirements that outline a series of good manufacturing practices to avoid contamination covering:

- Raw materials and ingredients (Article 61);
- Storage conditions for inputs (Article 62);
- The flow of personnel, vehicles and materials (Article 63);
- Equipment (Article 64);
- Potable water (Article 65);
- Traceability of lots (Article 66);
- Storage and transportation of products (Article 67); and
- Transportation of perishable products (Article 68).

Article 69 specifically requires that “[e]stablishments producing, processing, preserving and packaging of food must comply with Good Manufacturing Practices (GMP) referred to in this regulation, in a systematic and auditable way” and gives the local Health Authority the power to require an establishment to implement HACCP in accordance with Chilean Official Standard NCh 2861 of 2004.

On March 31, 2008, the Public Health Institute of the Ministry of Health issued Resolution No. 187 – *Aprueba Norma Técnica para la Determinación de Implementación del Análisis de Peligros y de Puntos Críticos de Control (HACCP) en Establecimientos de Alimentos* – a directive to be used by a local Health Authority when deciding which facilities will be required to implement HACCP. This directive superseded one issued in 2006 and prescribes time frames for implementation based on the products produced and firm size.

### 3.4 Exporters

The Food Health Regulations apply to exporters of food products, including fresh produce. Facilities must meet domestic requirements for permits (Article 96), and any product that does not meet Chilean standards, that is to be exported, must be clearly marked and cannot be sold in Chile (Article 97).

### 3.5 Traceability

Traceability has been identified in the 2009 National Food Safety Policy as a priority (Objective 5.1). The Food Health Regulation does not have a detailed reference to traceability requirements; however, Article 66 requires manufacturers to maintain production and individual lot registers for “at least 90 days beyond the period guaranteed by manufacturer.”

## CHILE – CASE STUDY

ARTICLE 102, UNDER TITLE II OF THE FOOD HEALTH REGULATIONS, PROHIBITS “[M]ANUFACTURING, IMPORTING, HOLDING, DISTRIBUTING, MARKETING, OR TRANSFERRING ALTERED, CONTAMINATED, ADULTERATED, OR FALSIFIED FOOD FOR WHATEVER REASON.”

#### 4.0 PUBLIC AND PRIVATE FOOD SAFETY CERTIFICATION PROGRAMS OPERATING IN CHILE

The Chilean fresh produce sector has considerable experience with the implementation of good agricultural practices (GAPs or BPAs) and good handling practices. In September 2000, an agreement<sup>20</sup> was signed by representatives of the Ministry of Economy, Development and Reconstruction, the Ministry of Agriculture, the Ministry of Health and the PROCHILE Horticultural Coordinating Committee, composed of the Food Producers Federation (FEDEFruta) and the Fruit Exporters Association (ASOEX) to develop a set of good agricultural and good handling practices in horticulture export. This was an initial step in an exporter-led food safety initiative that also included bringing EUREPGAP (now GlobalGAP) certification to Chile. The results of this first agreement under the Clean Production (Producción Limpia) initiative, established by the Chilean government in 1998, led to the development of a portfolio of standards, guidance and implementation documents for farms, packinghouses, cold storage facilities and transporters of fresh produce (fruits and vegetables)<sup>21</sup>.

In 2002, a second agreement<sup>22</sup> was entered into by these same parties for the implementation of the new program by industry participants. Government provided funding to farms for the implementation of BPA, to handlers for the implementation of BPMs [see next references] in packinghouses, storage facilities and to transporters. The funding was directed at specific aspects of the new standards related to “clean production,” such as pesticide use, but the overall impact was to facilitate implementation of the new standards for food safety. Firms, including farms that chose to participate in the agreement, signed binding contracts concerning their implementation of the BPAs, BPMs, etc. The trade associations and industry groups undertook to provide training and other assistance. This agreement lasted three (3) years and achieved some success, particularly in several key fruit production regions. An evaluation was conducted in 2005<sup>23</sup>. It indicated that this initiative had reached 884 companies, which had registered a total of 1,043 production facilities (816 orchards, 163 field packinghouses and 64 automated packing houses).

A 2008 report<sup>24</sup> indicated that the BPA/BPM implementation in the export sector had deepened and that the leading certification schemes had the following market shares on farm: GlobalGAP (42 percent), Tesco’s Nurture (or Nature’s Choice at the time) (25 percent), Davis Fresh programs (12 percent), ChileGAP (6 percent) and SQS (6 percent). The remaining market share was held by a grouping called “Other” at 9 percent.

#### 4.1 Buenas Prácticas Agrícolas – BPA (Good Agricultural Practices – GAP)

The National Commission on Good Agricultural Practices<sup>25</sup> is a public and private initiative with the mission to advise the Ministry of Agriculture on the formulation of policies to incorporate the concept of Good Agricultural Practices in farm production processes. It is chaired by the Undersecretary of Agriculture and has a membership of more than 20 government agencies and industry organizations<sup>26</sup>.

The commission has taken over the work done under the Clean Production agreements and published BPA technical specifications for 18 types of agriculture, including four for

<sup>20</sup> CPL (2002)

<sup>21</sup> Ibid, see in particular Annex 1

<sup>22</sup> Ibid

<sup>23</sup> CPL (2005)

<sup>24</sup> Chile (2008)

<sup>25</sup> [www.buenaspracticas.cl](http://www.buenaspracticas.cl)

<sup>26</sup> <http://www.asoex.cl>



fresh produce: fruit, vegetables, berries and potatoes. The others cover: wheat, corn, rice, floriculture, forest plantations, forests, beekeeping, pigs, poultry, eggs, beef cattle, dairy cattle, goats and sheep.

While the documents focus on food safety, they also deal with labor conditions, worker health and welfare, environmental conditions and biodiversity; and there are two separate guides that focus on these issues.

The technical specifications that cover fresh produce outline BPAs for primary production and, in the case of fruit, for packing in the field or in permanent structures adjacent to the field. From a food safety perspective they cover chemical, physical and microbiological hazards. There is no indication that the BPAs are based on a generic hazard analysis, or HACCP model. The fresh produce documents<sup>27</sup> include:

- Frutales y Packing de Campo - 2007 (Fruit);
- Cultivo de Hortalizas - 2008 (Vegetables);
- Cultivo de Berries - 2004 (Berries); and
- Cultivo de Papa -2008 (Potatoes)

The BPAs cover the following areas (example from vegetable BPA):

- Internal audit and record-keeping;
- Crop management (field or greenhouse);
- Seedling management;
- Harvesting and post-harvest management;
- Water management;
- Soil management;
- Use of fertilizers;
- Use of organic fertilizers;
- Management of plant protection products;
- Hygiene measures;
- Pest control and/or delivery;
- Solid waste management;
- Liquid waste management;
- Basic services staff;
- Security measures;
- Labor legislation; and,
- Training.

The BPA programs are voluntary. They have been designed to permit either full or partial implementation and are intended to provide growers with an opportunity to progressively improve their food safety management capacity. It should also be noted that if the grower signs a contract committing to implementation of the BPAs, then not only are the requirements mandatory, but so are all the relevant national standards. Each manual provides a listing of these standards as an appendix<sup>28</sup>.

The manuals provide farmers with guidance that is similar in scope and detail to that provided by GAP documents published in other countries. There is a strong emphasis on prevention and there are expectations of record-keeping throughout. Farmers are, in key areas, asked to undertake site-specific assessments. In the water management section of the vegetable BPA manual, for example, producers are given detailed advice on water for irrigation and other uses. They are asked to undertake assessments of their water sources and to test water used for irrigation, product washing, drinking, etc. It is recommended

<sup>27</sup> [www.buenaspracticas.cl/index.php?option=com\\_repositorio&Itemid=144&func=select&cid=2](http://www.buenaspracticas.cl/index.php?option=com_repositorio&Itemid=144&func=select&cid=2)

<sup>28</sup> See, for example, the list in the case study template for Chile, which is drawn from the BPA manual for vegetables.

## CHILE – CASE STUDY

CHILEGAP IS A HACCP-BASED PROGRAM THAT HARMONIZES THE REQUIREMENTS OF EUROPEAN AND AMERICAN GAP PROGRAMS SO THAT PRODUCERS CAN IMPLEMENT PRACTICES THAT WILL PROVIDE THEM WITH ACCESS TO THE MAJOR GLOBAL MARKETS AT MINIMUM COST.

that the laboratories used be accredited to Chilean Official Standard NCh Of. 17025:2001, which is equivalent to international standard ISO 17025, and that the farms follow the requirements of the Chilean Official Standard “Water Quality Requirements for Different Uses” (NCh Of. 1333:1978). Regular monitoring is required and corrective actions are set out for use when needed.

With respect to traceability, the vegetable BPA covers only practices on the farm and requires records that will facilitate the tracking of product and of the inputs and other activities related to production and harvest. The fruit BPA, which is of a more recent date, adds further detail and requires “packing records or documents with information from reception to the release of the product, identifying name and location of producer, property name, type of products, harvest date, packing date, characteristics of the process, storage and transportation of the fruit.” This BPA also requires the producer to record “the product identification information indicating the significance of codes, names, stamps, bar codes, etc.”

The Chilean government does not run a BPA certification scheme so information about producer uptake was not available. However, it is clear that as part of the 2009 National Food Safety Policy the government is encouraging small and medium-sized fresh produce growers and other farmers to implement the BPA programs. The government has, for example, identified the need to support the implementation of quality assurance systems (Objective 3.1, Action a) and to transform the Ministry of Health’s inspection system from product inspection to the auditing of processes (Objective 3.1, Actions b) and c)). These plans were further advanced in November 2009 when a memorandum of understanding among the Food Safety Agency, the Ministry of Agriculture and the national development agency (INDAP) was signed, committing the three agencies to an implementation strategy directed at small farmers and manufacturers<sup>29</sup>.

#### 4.2 ChileGAP<sup>30</sup>

ChileGAP is a private certification program of Good Agricultural Practices (GAP) that has been developed by the Fruit Development Foundation (FDF), under a mandate from the horticultural export industry of Chile. FDF was established in 1992 and now represents major producers and exporters of fruits and vegetables.

ChileGAP is a HACCP-based program that harmonizes the requirements of European and American GAP programs so that producers can implement practices that will provide them with access to the major global markets at minimum cost. The scheme covers only fruits and vegetables and has been benchmarked by GlobalGAP<sup>31</sup> to its version 3 for Fruits and Vegetables under the “approved modified checklist” option. In this version of the benchmarking process, the audit checklists are compared and any differences resolved by including the missing GlobalGAP requirements. Any additional requirements in the national scheme remain unchanged.

<sup>29</sup> [www.achipia.cl/prontus\\_inocuidad/site/artic/20091127/pags/20091127045156.html](http://www.achipia.cl/prontus_inocuidad/site/artic/20091127/pags/20091127045156.html)

<sup>30</sup> [www.chilegap.com](http://www.chilegap.com)

<sup>31</sup> [http://www2.globalgap.org/full\\_app\\_stand.html](http://www2.globalgap.org/full_app_stand.html)

## CHILE – CASE STUDY

ARTICLE 102, UNDER TITLE II OF THE FOOD HEALTH REGULATIONS, PROHIBITS “[M]ANUFACTURING, IMPORTING, HOLDING, DISTRIBUTING, MARKETING, OR TRANSFERRING ALTERED, CONTAMINATED, ADULTERATED, OR FALSIFIED FOOD FOR WHATEVER REASON.”

As the basis of its scheme management system<sup>32</sup>, ChileGAP has directly adopted the General Regulations, etc. from GlobalGAP. As a result, its certification scheme involves:

- Option 1 - Individual Farm Certification
  - An annual internal audit,
  - An annual announced external audit by a certification body inspector or auditor,
  - Unannounced audits by the certification body of 10 percent of the farms it certifies under Option 1 and
  - A three (3)-year certification period
- Option 2 - Group Certification (where farms have contractual relationship for the purchase of product [e.g. a co-operative] )
  - Annual farm self inspection,
  - Annual internal audit by the group of all participating farms,
  - An external audit of the group’s management system by an approved certification body and
  - An external audit of “a random sample that as a minimum is the square root of the total number of registered farmers within the Farmer Group.”

ChileGAP inspectors and auditors must meet GlobalGAP requirements and pass a standard GlobalGAP test. And certification bodies must be accredited to ISO Guide 65 by a member of either the European Cooperation for Accreditation (EA) or the International Accreditation Forum (IAF) and approved by GlobalGAP. There are four certification bodies providing this service in Chile:

- LSQA (LATU Sistemas S.A.) [based in Uruguay];
- Inspectorate de Argentina S.A. [based in Argentina];
- NSF-CMi Certification [based in the US]; and,
- CPS - Certification of Product and Systems [based in Chile].

As of April 19, 2010, the ChileGAP registry<sup>33</sup> reported that there were 143 certified farms. However, as of April 30, 2010, GlobalGAP<sup>34</sup> reported that ChileGAP had only 13 producers in its registry, all under Option 2 (group).

In the OECD’s 2008 review of Chilean agricultural policies, the authors concluded that the growth of ChileGAP certifications may be slow because the scheme requirements were “more stringent” than external schemes such as GlobalGAP and the Davis Fresh program<sup>35</sup>.

#### 4.3 Chilean Official Standard NCh 2861:2004 - HACCP

Chilean fresh produce packers and storage facilities have also been identified as being certified to NCh 2861:2004, the national standard for the implementation of HACCP. Based on the examples reviewed in the LSQA database<sup>36</sup>, this is almost always paired with a reference to the use of Codex Alimentarius CAC/RCP 1:1969 HACCP and sometimes with other certifications such as Tesco’s Nurture program, GlobalGAP and Davis Fresh USFieldGAP or Davis Fresh USGAP/Packing. Of the 45 firms in the LSQA registry, 30 were involved in fresh produce, three in exporting wine and the remainder in a variety of other food products.

<sup>32</sup> [www.chilegap.com/default.asp?idioma=0](http://www.chilegap.com/default.asp?idioma=0)

<sup>33</sup> [www.chilegap.com/default.asp?idioma=1](http://www.chilegap.com/default.asp?idioma=1)

<sup>34</sup> Personal communication by e-mail on April 30, 2010.

<sup>35</sup> OECD (2008)

<sup>36</sup> [www.lsqanet.com/pages/nuestros\\_clientes.html](http://www.lsqanet.com/pages/nuestros_clientes.html)

## CHILE – CASE STUDY

THE FOOD HEALTH REGULATION DOES NOT HAVE A DETAILED REFERENCE TO TRACEABILITY REQUIREMENTS; HOWEVER, ARTICLE 66 REQUIRES MANUFACTURERS TO MAINTAIN PRODUCTION AND INDIVIDUAL LOT REGISTERS FOR “AT LEAST 90 DAYS BEYOND THE PERIOD GUARANTEED BY MANUFACTURER.”

#### 4.4 International Certification Schemes Operating in Chile

The Chilean fresh produce supply chain was an early adopter of international food safety certification schemes as a means of meeting foreign customer food safety requirements. In primary agriculture, the dominant scheme is GlobalGAP, and some farms are also certified to Davis Fresh<sup>37</sup> GAPs. Some farms are also certified to Tesco’s Nurture program or perhaps to the PrimusLABs farm programs. Further down the chain, the certifications have been identified to the BRC version 5 and the Davis Fresh HACCP and GMP programs but not to SQF 2000. Others may be certified PrimusLabs GMP and GMP/HACCP.

##### 4.4.1 GlobalGAP

As of April 30, 2010, GlobalGAP reported 1,857 farm certifications under Option 1 (Individual) and 380 farms under Option 2 (Group) in Chile. It also has licensed<sup>38</sup> eight (8) certification bodies, one of which was Chilean and the others as branch offices of foreign firms:

- CPS - Certification of Product and Systems
- NSF - CMi Chile [NSF-CMi International (U.S.)]
- IRAM CHILE [IRAM-Instituto Argentino de Normalizacion y Certificacion]
- Inspectorate Chile LTDA [Inspectorate de Argentina S.A.]
- IMO Chile [IMO - Institute for Marketecology (Switzerland)]
- DQS de Chile [DQS GmbH (Germany)]
- BCS Chile [BCS Öko-Garantie GmbH (Germany)]
- Bureau Veritas Certification Chile [Bureau Veritas Certification S.A.U. (Spain)]

FDF operates the Chilean national technical working group as part of the GlobalGAP process for revision and localization of the GlobalGAP standards for fruits and vegetables.

##### 4.4.2 Davis Fresh Programs

###### 4.4.2.1 Davis Fresh US Field GAP

The Davis Fresh “US Field GAP” program is an audit and certification scheme based on the GAPs identified by USDA for fresh produce production. Davis Fresh was purchased by NSF International in 2006. Originally established in 1999, it has been active since then in providing consulting, audit and certification services in the U.S. and in Central and South America.

As of April 19, 2010, at least one certification body, LASQ<sup>39</sup>, had registered 191 certificates to the Davis Fresh US Field GAP program.

Based on a review of some certificates in the LASQ registry, it is not unusual for fresh produce producers to have certification to both GlobalGAP and US Field GAP/ Davis Fresh. The same producers may also have certification to Tesco’s Nature’s Choice or other schemes as well.

###### 4.4.2.2 Davis Fresh US GAP/Packing

As of April 19, 2010, LASQ<sup>40</sup> had also registered 20 certificates to a program referred to as Davis Fresh US GAP/Packing.

37 While some reports (e.g. OECD (2007a) and OECD (2008) refer to the Davis Fresh ProSafe program, no specific certifications to this program were identified in the registry searches undertaken for this project.

38 <http://www2.globalgap.org/apprebs.html?countryid=45&continentid=5&ScopeID=29&SchemeID=65>

39 [www.lsqanet.com](http://www.lsqanet.com)

40 Ibid



#### 4.4.2.3 Davis Fresh HACCP and GMP

Davis Fresh also has standards for the post-farm segments of the fresh produce supply chain. These include programs for good manufacturing practices (GMPs) and for HACCP. NSF International lists 13 sites in Chile where it has issued separate certificates for Davis Fresh HACCP and GMPs.<sup>41</sup>

#### 4.4.3 BRC Global Food Standard, Version 5

As of April 30, 2010, the BRC reported 71 certifications of produce packers in Chile. These companies market a wide range of products – primarily fruits, but the listings also include vegetables and mushrooms:

- Fruits: apples, apricots, blackberries, blueberries, boysenberries, raspberries, strawberries, cherries, pears (European and Asiatic varieties), peaches, plums, plouots, plumcots, persimmons, pomegranates, kiwis, oranges, clementines, mandarins, nectarines, grapefruit, grapes, raisins, quince; avocado.
- Vegetables: asparagus, onions, radicchio;
- Nuts: almonds; and,
- Wild products: mushrooms and blackberries.

The BRC has licensed three (3) certification bodies to operate in Chile:

- Bureau Veritas Certification Chile;
- DQS de Chile; and,
- NSF International Chile S.A.

Four other BRC-licensed certification bodies are also operating in Chile:

- Inspectorate de Argentina S.A.;
- SGS United Kingdom Ltd;
- SAI Global Assurance Services Ltd; and,
- ECCO INGENIEROS SL.

<sup>41</sup> [www.nsf.org/international/south\\_america/chile/certified\\_companies.pdf](http://www.nsf.org/international/south_america/chile/certified_companies.pdf)

## CHINA – CASE STUDY

AS OF 2009, CHINA HAD SOME 200 MILLION HOUSEHOLDS ENGAGED IN FARMING, MOST OF WHICH ARE CULTIVATING BETWEEN 1 AND 2 ACRES OF LAND SPREAD OVER 4 TO 6 PLOTS.

## 1.0 INTRODUCTION

Of the five countries reviewed in these case studies, none has undergone greater transformation of its agri-food sector than China. The economic reform initiatives that started in 1978 have reshaped China's agricultural sector and stimulated a radically different system of food processing and marketing. Lohmar et al<sup>1</sup> in their U.S. Department of Agriculture (USDA) report on *China's Ongoing Agricultural Modernization* note four key reforms: the de-collectivization of primary agriculture and the allocation of farmland over time to family production units; the liberalization of markets and the establishment of private enterprises in processing, distribution and retailing of food; industrial reform, which created new opportunities for the underemployed rural labor force either locally or in rapidly expanding urban areas; and finally, trade reform, which opened foreign markets for Chinese products. These reforms have led to an explosion in production, increased supplies on domestic markets to meet increased demand and generated either surpluses or specially targeted production for export.

As of 2009, China had some 200 million households engaged in farming, most of which are cultivating between 1 and 2 acres of land spread over 4 to 6 plots. These farmers have limited access to capital and in most cases limited educations (e.g. fewer than six years of schooling)<sup>2</sup>. The reform has also led to some farming enterprises that are world scale and class. For example, the world's largest dairy farm, while outside the scope of this study, is in China and is reported to have 250,000 dairy cows<sup>3</sup>.

The domestic food processing market is now dominated by businesses that are “small, often family owned, enterprises operating out of households or rented facilities with very little capital investment” and considerable mobility<sup>4</sup>.

## 2.0 THE NATIONAL FOOD SAFETY REGIME

## 2.1 Food Safety Laws

China began to modernize its food safety laws and regulatory regime in 2005 as part of the second wave of food safety initiatives by national governments. This was a major undertaking in response to domestic concerns based on a growing mistrust of both the food supply and government regulation thereof and on a series of international incidents that were seriously damaging the “China” brand of food exports. The reform initiative involved the highest levels of government, state institutions, academics and the National People's Congress. Resources were mobilized to study food safety control models around the globe (e.g. the European Union [EU], Australia, Canada, U.S., etc.), to place experts overseas to gain on-the-ground experience with these models and to familiarize legislators and senior officials with the concepts and workings of a modern food safety system. China also increased significantly its participation in multilateral forums such as the Codex Alimentarius Commission and other institutions (e.g. the ISO working groups developing the ISO 22000 series of food safety management standards).

As of early 2010, there are now two main pieces of legislation in the People's Republic of China that govern the safety of fresh produce for both domestic consumption and export. These are:

**The Food Safety Law of the People's Republic of China** (Food Safety Law) adopted by the Standing Committee of the National People's Congress on Feb. 28, 2009; and in effect as of June 1, 2009<sup>5</sup>; and

1 Lohmar (2009)

2 Zhou (2009)

3 The New York Times, May 6, 2010

4 Lohmar (2009)

## CHINA – CASE STUDY

BEYOND THE FARM GATE, THE LINKS IN THE FRESH PRODUCE SUPPLY CHAIN ARE REQUIRED TO MEET THE SAME GENERAL EXPECTATIONS AS OTHER FOOD BUSINESSES UNDER THE FOOD SAFETY LAW.

**The Law of the People's Republic of China on Agricultural Product Quality Safety** (Agricultural Product Quality Safety Law) adopted by the Standing Committee of the National People's Congress on April 29, 2006; and in effect as of Nov. 1, 2006<sup>6</sup>.

These laws are supported by standards, regulations and implementation measures, including, inter alia, the following:

**Implementation Rules of the Food Safety Law of the People's Republic of China** (Food Safety Implementation Rules) adopted by the State Council on July 8, 2009, and effective immediately<sup>7</sup>; and the

**Circular on the Relevant Issues of Implementation of the Food Safety Law** – Ministry of Health, June 5, 2009<sup>8</sup>.

These new laws involve major reforms and signal the establishment of an approach to food safety based on increased surveillance and clear statements concerning the responsibilities of farms and firms involved in the production of food.

## 2.2 The Competent Authorities

The Chinese system of government allocates responsibilities for the implementation of national legislation among both national and local government bodies and as a result is both highly centralized and very decentralized. The new Food Safety Law follows this pattern.

At the top of the new regime, the law provided for a new **Food Safety Commission (or Committee)**, although its final mandate was left to be determined by the State Council, the executive body of the central government. The commission was formally established in February 2010 to: analyze the food safety situation; guide and coordinate food safety work; make food safety policies; and urge the relevant departments to fulfill their responsibilities in food supervision. Its initial members include three (3) Vice Premiers (and Politburo members) and more than 10 heads or vice heads of government departments in charge of health, finance and agriculture, among others.<sup>9</sup> The ministries are each given specific responsibilities.

The Ministry of Health (MOH) was assigned the comprehensive coordination function for food safety, the assessment of food safety risks, the formulation of food safety standards, the release of food safety information, the formulation of qualifications for individuals involved in the system, the determination conditions and inspection requirements for food inspection agencies, the organization of investigations and the handling of major food safety accidents (Article 4).

The Ministry of Agriculture (MOA) has primary responsibility for the Agricultural Product Quality Safety Law, and its Bureau for Agricultural Food Quality and Safety is responsible for, inter alia,

- Drafting related laws, regulations and provisions and giving policy advice;
- Formulating development strategies, policies and measures;
- Carrying out risk assessments;
- Formulating national standards;

6 Unofficial English translation accessed on March 10, 2010, at [http://english.agri.gov.cn/ga/plar/200906/t20090623\\_1106.htm](http://english.agri.gov.cn/ga/plar/200906/t20090623_1106.htm)

7 Unofficial English translation accessed on March 10, 2010, at: [http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Final%20Food%20Safety%20Law%20Implementation%20Measures\\_Beijing\\_China%20-%20Peoples%20Republic%20of\\_8-14-2009.pdf](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Final%20Food%20Safety%20Law%20Implementation%20Measures_Beijing_China%20-%20Peoples%20Republic%20of_8-14-2009.pdf)

8 Unofficial English translation accessed on March 10, 2010, at: [http://gain.fas.usda.gov/Recent%20GAIN%20Publications/MOH%20Circular%20on%20Food%20Safety%20Law\\_Beijing\\_China%20-%20Peoples%20Republic%20of\\_9-28-2009.pdf](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/MOH%20Circular%20on%20Food%20Safety%20Law_Beijing_China%20-%20Peoples%20Republic%20of_9-28-2009.pdf)

9 [http://english.gov.cn/2010-02/23/content\\_1539780.htm](http://english.gov.cn/2010-02/23/content_1539780.htm)

## CHINA – CASE STUDY

CHINA HAS ADOPTED A FIELD-TO-FORK FOOD SAFETY APPROACH, AND THE FOOD SAFETY LAW PUTS THE PRIMARY RESPONSIBILITY FOR ENSURING SAFE FOOD ON FOOD BUSINESSES.

- Conducting verification and evaluations of national standards;
- Monitoring and supervision of agricultural product quality and safety;
- Surveillance (early warning) analysis and information release;
- Guiding the establishment of the agricultural inspection testing system and institution assessment;
- Guiding the management of the agricultural product quality authentication system;
- Authentication and quality supervision;
- Guiding the establishment of the tracing system for the agri-food quality and safety;
- Supervision of product recalls; and
- Enforcement activities (“crackdown”) vis-à-vis fake agricultural products.<sup>10</sup>

The **General Administration of Quality Supervision, Inspection and Quarantine of the People’s Republic of China (AQSIQ)** is a separate ministerial administrative organ that functions directly under the State Council of the People’s Republic of China. It is in charge of national quality, metrology, entry-exit commodity inspection, entry-exit health quarantine, entry-exit animal and plant quarantine, import-export food safety, certification and accreditation and standardization, as well as administrative law-enforcement<sup>11</sup>. This mandate is for all products, not just food products.

As noted above, China has a decentralized governmental system based on tiered jurisdictions that involve 23 provinces, 5 autonomous regions and 4 major municipalities (including Beijing and Shanghai) and more than 2,800 county-level administrative divisions<sup>12</sup>. These local governments have departmental administrations that mirror the ministries of the central government (e.g. agriculture, health, etc.).

These governments and their departments are assigned a range of responsibilities under the Food Safety Law. For example:

*Article 5: A local people’s government at or above the county level shall undertake the overall responsibility for the food safety supervision and administration within its own administrative region, uniformly lead, organize and coordinate the work of food safety supervision and administration within its own administrative region, establish a sound whole-process food safety supervision and administration mechanism, uniformly lead and exercise command in responses to food safety emergencies, improve and execute the food safety supervision and administration accountability system, and appraise, discuss and evaluate the performances of the food safety supervision and administration departments.*

and

*Article 35: The agriculture administrative department at or above the county level shall intensify the administration and guidance on the use of the agricultural inputs and establish a sound system for the safe use of agricultural inputs.*

The Agricultural Product Quality Safety Law allocates responsibilities in a similar fashion:

*Article 3: The administrative department of agriculture of the people’s government at the county level or above shall be responsible for the supervision and inspection of agricultural product quality safety; while the relevant departments of the people’s government at the county level or above shall, in accordance with the scope of duties, be responsible for the relevant work on agricultural product quality safety respectively.*

<sup>10</sup> [http://english.agri.gov.cn/ga/amoq/organs/200906/t20090625\\_1171.htm](http://english.agri.gov.cn/ga/amoq/organs/200906/t20090625_1171.htm)

<sup>11</sup> <http://english.aqsiq.gov.cn/AboutAQSIQ/Mission/>

<sup>12</sup> [http://en.wikipedia.org/wiki/Administrative\\_divisions\\_of\\_China#Province\\_level](http://en.wikipedia.org/wiki/Administrative_divisions_of_China#Province_level)

## CHINA – CASE STUDY

PRIOR TO THE REFORM OF THE LEGAL REGIME DISCUSSED ABOVE, THE CHINESE GOVERNMENT INTRODUCED A NUMBER OF PROGRAMS DESIGNED TO IMPROVE FOOD SAFETY ALONG THE SUPPLY ROUTE.

### 2.3 Government Oversight and Conformity Assessment

The Food Safety Law sets out the expectations for food safety supervision and administration and allocates this activity to the local people's government at or above the county level. In particular, Article 76 requires an annual plan to be developed by the health, agriculture, quality supervision, industry/commerce, food and drug supervision and administrative departments at this level, and Article 77 authorizes the responsible bodies to:

1. Conduct on-site inspections by entering the production and business operation sites;
2. Conduct sampling inspection on the food under production and business operation;
3. Consult and copy relevant contracts, instruments, account books and other relevant materials;
4. Seal up and detain the food that, as evidence shows, does not conform to the food safety standards, the food raw materials, food additives and food-related products for illegal use, as well as the utensils and equipment that are used for illegal production and business operation or that have been contaminated; and
5. Seal up the sites for the illegal production and business operation of food.

The Agricultural Product Quality Safety Law also has provisions related to government oversight of food safety of primary production. Article 34 requires the department of agriculture of a local administration, county level or above, to set up “an agricultural product quality safety monitoring system.” This activity also involves creating and implementing an annual plan for the “random inspection on the agricultural products under production or on sale in the market.” Where testing is part of this plan, the requirements (e.g. for sampling, etc.) are to be set nationally, the laboratories are to meet regulatory standards and the results are to be published annually. This inspection activity is to be funded by the local governments and no fees are to be charged. Other Articles contain provisions related to such matters as on-site inspections and access to records, etc. that are required for a modern inspection system.

## 3.0 LEGAL REQUIREMENTS

### 3.1 General Food Safety Requirements

China has adopted a field-to-fork food safety approach, and the Food Safety Law puts the primary responsibility for ensuring safe food on food businesses. Article 3 requires that:

*Food producers and business operators shall follow relevant laws, regulations and food safety standards when engaging in food production and business operation activities, be responsible to the society and the general public, ensure food safety, accept social supervision and assume social responsibilities.*

The basic standard for safe food is set out in Article 28, which prohibits, inter alia:

- Food produced with non-food raw materials, or food containing non-food-additive chemical substances and other substances potentially hazardous to human health, or Food produced with recycled food as raw materials;
- Food in which the pathogenic microorganisms, pesticide residues, veterinary medicine residues, heavy metals, pollutants and other substances hazardous to human health exceed the limits as prescribed in the food safety standards;
- Food, staple or supplementary, exclusively for infants and other particular groups of people, of which the nutrient ingredients do not meet the food safety standards;
- Food that is putrid or deteriorated, spoiled by rancid oil or fat, moldy, infested with pests, contaminated and dirty, mixed with strange objects, adulterated and impure, or abnormal in sensory properties;



- Food that is contaminated by packing materials, containers or transport vehicles;
- Food whose shelf-life has expired;
- Pre-packed food without labels;
- Food, the production and business operation of which is expressly banned by the state for anti-disease purpose or for other special needs; and
- other food that does not conform to the food safety standards or requirements.

The law sets out expectations for food businesses that move the Chinese food safety regime a considerable distance toward the most advanced sets of requirements such as the Food Safety Law in the European Union or the regime in Australia. Food businesses are required to:

- Be licensed (Article 29), with certain exemptions for some small-scale production units/vendors/workshops;
- Establish and improve food safety management systems, strengthen the training of employees in respect to food safety knowledge, be provided with full-time or part-time food safety managers, do a good job in inspecting the food that it produces or operates (Article 32)
- Implement prerequisite programs that cover premises, equipment, sanitation, personnel hygiene, etc. (Article 27);
- Establish and implement “handler health management systems” that involve annual health examinations and prohibit contact by ill personnel with ready-to-eat food (Article 34);
- Verify their suppliers’ licenses and product certification documentation, inspect and record raw materials, etc. (Article 36); and,
- Inspect contract production facilities, document product (Article 37).

The law stops short of requiring food businesses to mandatorily implement good manufacturing practices (GMPs) and HACCP (Article 33). It has, however, provided capacity for the certification and ongoing monitoring of food businesses that do obtain certification.

### 3.2 Primary Production

While the general requirements of the Food Safety Law described above cover primary production, there are some specific provisions as well. Article 34 specifies that:

*An edible agricultural produce producer shall, in accordance with the food safety standards and relevant provisions of the state, use pesticides, fertilizers, growth regulators, veterinary medicines, feeds, feed additives and other agricultural inputs;*

and that:

*An enterprise or farmers’ professional cooperative and economic organization engaging in the production of edible agricultural products shall establish a production record system for edible agricultural products.*

There are also provisions in the **Agricultural Product Quality Safety Law** concerning food safety. In particular, Article 33 states that:

*An agricultural product under any of the following circumstances shall not be sold:*

- (1) It contains any pesticide, veterinary drug or other chemical substance prohibited by the state from being used;*
- (2) The remnant of chemical substance such as pesticide and veterinary drug or the contained poisonous and harmful substance such as heavy metal, etc. does not comply with the agricultural product quality safety criteria;*

## CHINA – CASE STUDY

FRESH AND PROCESSED PRODUCE PRODUCTS MUST BE PRODUCED ACCORDING TO THE GREEN ECOLOGICAL ENVIRONMENT STANDARD SET BY THE MINISTRY OF AGRICULTURE.

- (3) *The contained pathogenic parasites, microorganisms or biological toxin does not conform to the agricultural product quality safety criteria;*
- (4) *The material in use such as preservative, antiseptic or additive, etc. does not conform to the relative compulsory technical norms of the state; or*
- (5) *Other circumstances under which it does not conform to the agricultural product quality safety criteria.*

Article 15 prohibits farming in areas that “are not suited to the production of certain agricultural products in view of the requirements for ensuring quality and safety of agricultural products, the properties of the varieties, and the toxic and harmful substances in the atmosphere, soil and water body of the production areas” and requires the local administrations to identify such areas within its jurisdiction.

Other Articles deal with prohibitions on the discharge or dumping of wastewater, waste gas, solid wastes or other poisonous and harmful substances on farmland (Article 18), the quality of water used in farming and of solid wastes used as fertilizers (Article 18), and the reasonable use of chemical products such as chemical fertilizers, pesticides, veterinary drugs and agricultural films to prevent contaminating the production places of agricultural products (Article 19).

The production of pesticides and other farm chemicals requires licensing under Article 21. The Institute for the Control of Agrochemicals, Ministry of Agriculture (ICAMA)<sup>13</sup>, was established in 1963, directly under MOA, for this purpose. It has the administrative responsibility for pesticides registration, quality inspection, biological testing, residue test, market supervision, information service, technical exchange, foreign cooperation and consultation. In addition, Article 22 requires the local departments of agriculture to undertake random inspections on the use of agricultural inputs, establish training programs, etc.

The users of agricultural inputs are also required, by Article 26, to proactively exercise responsibility, up to and including testing:

*An enterprise engaging in agricultural production or a professional farmers’ cooperative economic organization shall check the agricultural product quality safety either by itself or by entrusting a testing institution. It is prohibited to sell any agricultural product found from the test to fail to comply with the agricultural product quality safety criteria.*

### 3.3 Packers and Handlers

Beyond the farm gate, the links in the fresh produce supply chain are required to meet the same general expectations as other food businesses under the Food Safety Law (see 3.1 above).

### 3.4 Exporters

Article 65 of the Food Safety Law requires a food exporter to “go through the record-filing formalities at the entry/exit inspection and quarantine department of the state.” This Article also requires that “[T]he entry/exit inspection and quarantine department of the state shall regularly announce the list of exports and agents who have made record filing, and the list of overseas food production enterprises registered.”

The Chinese government has agreements with a number of countries (U.S., Japan, etc.) and territories regarding the safety of food exports. The agreement covering Hong Kong and

<sup>13</sup> [www.icama.org.cn/en/en.asp](http://www.icama.org.cn/en/en.asp)

## CHINA – CASE STUDY

NEW REQUIREMENTS WITH RESPECT TO TRACEABILITY ARE ALSO PART OF CHINA'S NEW FOOD SAFETY REGIME.

Macao, for example, dates from 2002 and requires all fruit and vegetable shipments to come from registered farms or registered collection stations, be properly labeled and documented. A revised agreement, in place as of Nov. 1, 2009<sup>14</sup>, incorporates the new requirements of the Food Safety Law regarding:

- The registration system for farms and production and processing establishments;
- The management system of the establishments;
- The certification and record system for vegetable supply;
- The implementation of a record system and labeling management system;
- Labeling on packaging for transport and sale of vegetables;
- Loading supervision and seal control;
- The implementation of an electronic supervision system;
- Testing of pesticide residues in production and processing establishments;
- Inspection at the border; and,
- Non-compliance measures, penalties, etc.

### 3.5 Traceability

New requirements with respect to traceability are also part of China's new food safety regime. Article 39 of the Food Safety Law provides for a one-step-forward, one-step-back approach that requires that:

*An enterprise engaging in the business operation of food shall establish a check and inspection record system for the purchased food so as to faithfully record such contents as the name, specifications, quantity, production batch number, shelf-life of the food, name and contact information of the supplier, purchase date, etc.*

On Dec. 22, 2009, AQSIQ approved two national standards on food traceability to facilitate the implementation of these requirements by food businesses<sup>15</sup>:

- *General Specification for Food Traceability* – which specifies the basic principles and requirements on food traceability, tracing procedures and management rules; and,
- *Food Information Coding and Identification* – which stipulates information relating to coding, data structure and data carrier identification on food traceability.

AQSIQ has indicated that further traceability standards are planned for publication in 2010, including:

- Traceability Requirements for Agricultural Products - Fruits and Vegetables; and,
- Guidelines on Design of Agricultural Product Traceability Information System.

To harmonize its traceability standards with those being developed internationally, the Article Numbering Center of China (ANCC)<sup>16</sup>, the Chinese member of GS1 and an affiliate of AQSIQ, had previously published *Guidelines on Tracking and Traceability of Fruits and Vegetables*, approved the *China Barcode Promotion Program* and conducted a number of national demonstration projects.

<sup>14</sup> Hong Kong (2009)

<sup>15</sup> [http://english.aqsiq.gov.cn/NewsRelease/NewsUpdates/201001/t20100112\\_134734.htm](http://english.aqsiq.gov.cn/NewsRelease/NewsUpdates/201001/t20100112_134734.htm)

<sup>16</sup> [www.ancc.org.cn/GS1ChinaEN/index.aspx](http://www.ancc.org.cn/GS1ChinaEN/index.aspx)

## CHINA – CASE STUDY

CHINA BEGAN TO MODERNIZE ITS FOOD SAFETY LAWS AND REGULATORY REGIME IN 2005 AS PART OF THE SECOND WAVE OF FOOD SAFETY INITIATIVES BY NATIONAL GOVERNMENTS.

#### 4.0 PUBLIC AND PRIVATE FOOD SAFETY CERTIFICATION PROGRAMS OPERATING IN CHINA

Prior to the reform of the legal regime discussed above, the Chinese government introduced a number of programs designed to improve food safety along the supply route. These were initially developed to respond to domestic market expectations and, in the last example discussed, explicitly targeted at international market expectations.

##### 4.1 Green Food

The first program established, in 1990, was the Green Food Program<sup>17</sup>. It is now operated by a special agency, the Green Food Development Center (founded in 1992), and supervised by the Ministry of Agriculture. The program covers all agricultural and food products at the levels of primary production and processing. Its standards encompass food safety, quality and nutrition, and the principles of sustainable development. In addition to the regulatory requirements for food safety and traceability, now set out in the Food Safety Law and the Agricultural Product Quality Safety Law, Green Food products must meet:

- Production process criteria - Green Food operating procedures covering the full supply chain including analyzing, monitoring and controlling the application of chemically synthesized fertilizers, pesticides, veterinary drugs, feed additives, etc.;
- Product criteria - Green Food hygiene standards; and
- Storage and shipping criteria – national standards for external packing and labeling and special Green Food packing, labeling, etc. requirements.

Fresh and processed produce products must be produced according to the green ecological environment standard set by the Ministry of Agriculture.

The Green Food Development Center operates through 42 provincial and municipal branch agencies, 38 quality inspection stations and 71 environmental monitoring branches nationwide. These agents provide certification, monitor products in the marketplace and carry out other related functions. The certification scheme has two levels, each with its own consumer-visible label:

Green Food “AA” - deemed to be equivalent to items produced under international organic standards, although these products are not certified as organic.

Green Food “A” - identified as grown with fewer chemical inputs.

In 2005, a Food and Agriculture Organization study<sup>18</sup> estimated that about 3,700 enterprises all along the supply chain were certified under the Green Food program for some 6,300 products using the logo, with a sales value of more than \$105 million (U.S.). However, the study concluded that fresh produce accounted for only a small portion, around 3 percent. The major products covered were milk and dairy products (60 percent) and rice and tea with 18 percent.

<sup>17</sup> [www.greenfood.org.cn/sites/GREENFOOD/](http://www.greenfood.org.cn/sites/GREENFOOD/)

<sup>18</sup> [ftp://ftp.fao.org/docrep/fao/010/ai+16e/ai+16e00.pdf](http://ftp.fao.org/docrep/fao/010/ai+16e/ai+16e00.pdf)



#### 4.2 China Safe Agro-Food Certification

The Safe Agro-Food scheme, established in 2003 is managed and monitored by the Centre for Agro-Food Quality & Safety (CAQS) under the Ministry of Agriculture. It too is targeted at the full supply chain and starts with primary agriculture. The program is based on the principles of standardized production, input supervision, critical control points, safety guarantee and label management. Participants must meet the government requirements for general agricultural products and food safety. Certification of agricultural facilities covers three main areas:

- Environmental impact of production (including pollution coming from the use of pesticides, fertilizers, heavy metals, etc.);
- Production facilities (physical facilities, program for the use of fertilizers, pesticides, etc.); and,
- Record-keeping system (including the use of pesticides, fertilizers, seeds, water, drugs, etc.).

CAQS provides certification free of charge to farmers as all costs for inspection and certification are borne by the Ministry of Agriculture.

In a 2007 report, FAO concluded that approximately 17 percent of the cultivated farmland, 25 percent of the agricultural facilities and 30 percent of agricultural products produced in China were certified according to the Safe Agro-Food scheme<sup>19</sup>. In addition, the report indicated that, based on a survey carried out in the country's markets by CAQS, "about 95 percent of all food and agricultural products in China live up to the food safety requirements set by the Safe Agro-Food standard."

#### 4.3 ChinaGAP

ChinaGAP was established by the Chinese government through its Certification and Accreditation Administration of the People's Republic of China (CNCA) to meet buyer specifications in the European Union, in particular those set out in the EurepGAP, now GlobalGAP certification scheme. It is a program for primary production of all types of farm products. Development of the scheme was initiated in 2003, and ChinaGAP was launched in 2005. In April 2010, the program was given provisional approval under the modified approved checklist option of GlobalGAP's benchmarking scheme (version 3) for the Integrated Farm Assurance/Crops/Fruit and Vegetables and Combinable Crops modules (2008 version).

ChinaGAP operates two certification options:

- Class 1 – implementation of food safety, sustainable and environment protection, occupational health and animal welfare requirements, as applicable. It is compatible with Global GAP; and,
- Class 2 – implementation of food safety and environment protection requirements. This appears to be an entry-level option that involves the adoption of basic good agricultural practices (GAPs).

GlobalGAP also offers two certification options, one based on individual farms (Option 1) and the other on groups involving farms operating within contractual relationship (Option 2), and has only benchmarked ChinaGAP for certification of Class 1 farms that qualify under its Option 1.

<sup>19</sup> <ftp://ftp.fao.org/docrep/fao/010/ai+16e/ai+16e00.pdf>

## CHINA – CASE STUDY

IN ADDITION TO THE AUDIT AND CERTIFICATION SCHEMES DEVELOPED BY THE CHINESE GOVERNMENT AND ITS AGENCIES, A NUMBER OF OTHER PRIVATE SECTOR SCHEMES HAVE ISSUED CERTIFICATES IN CHINA. THESE INCLUDE GLOBALGAP, THE BRC GLOBAL STANDARD FOR FOOD SAFETY AND OTHERS.

The Chinese program is based on a series of six (6) national standards, five of which cover the GAPs and mirror the modules in the GlobalGAP scheme. The sixth is the ChinaGAP general regulation. This means that at least ChinaGAP's Class 1 option is a HACCP-based food safety program with a generic hazard analysis that takes into account the prevailing conditions, hazards and modes of production in China. The Class 1 option also adds the non-food safety requirements needed to meet the GlobalGAP benchmark.

Certification to the ChinaGAP program is undertaken by certification bodies licensed and accredited by CNCA under Chinese standards equivalent to ISO Guide 65. As of October 2009, there were 15 accredited certification bodies with access to 435 registered inspectors or auditors. However, at the time of provisional approval in April 2010, GlobalGAP had recognized one certification body to undertake audits and certification to ChinaGAP's benchmarked version.

Participation in the ChinaGAP program is, as yet, limited. In an October 2009 presentation at the GlobalGAP session in Kuala Lumpur, CNCA reported that its licensed certification bodies had issued 659 certificates since the start of the program, but that only 341 were then current. On April 30, 2010, GlobalGAP reported only three (3) farms certified to GlobalGAP under Option 1.<sup>20</sup>

#### 4.4 International Certification Schemes Operating in China

In addition to the audit and certification schemes developed by the Chinese government and its agencies, a number of other private sector schemes have issued certificates in China. These include GlobalGAP, the BRC Global Standard for Food Safety and others. SQF, which is the Food Marketing Institute's (FMI) scheme, reported no certifications and the IFS scheme, out of Europe, does not publicly release data about its certifications. China has also adopted ISO 22000:2005 as a national standard, and ISO in its December 2008 survey reported 369 certificates, but it is not known how many of these, if any, might be in the fresh produce sector.

International retailers and food-service companies that are active in the domestic Chinese market have also set local standards for fresh produce and other products destined for their outlets. The 2007 FAO appraisal report noted above, described several of these – Auchan, Carrefour and Metro Cash & Carry. Carrefour, an international retailer based in France, is reported as having established *La Filière Qualité Carrefour* ("Carrefour Quality Line") brands in China. Carrefour initially developed these supply chain schemes in France starting in 1991 as a variation on the private-label approach and has expanded it around the world. In 2008, it had 418<sup>21</sup> such schemes globally, 43 of which were in China, all based on a common framework that involves:

- Clear specifications for all raw materials and checks all along the supply chain;
- Careful selection of suppliers and detailed agreements between them and Carrefour;
- Product testing for consumer acceptance prior to commercialization;
- Limitations and reductions on the use of food colorings, artificial flavors and additives;
- Prohibitions on the use of GMO ingredients;
- Management of food safety and quality;
- Monitoring, testing and analysis at all production levels;
- Traceability guarantees for all products;
- Detailed labeling with respect to ingredients and processes; and
- Packaging that provides for product safety, security and freshness.

<sup>20</sup> [www.globalgap.org/cms/upload/Documents/temp\\_upload/TOUR2009/Presentations/20091015\\_KL\\_Introduction\\_to\\_ChinaGAP\\_Xiande\\_Liu.pdf](http://www.globalgap.org/cms/upload/Documents/temp_upload/TOUR2009/Presentations/20091015_KL_Introduction_to_ChinaGAP_Xiande_Liu.pdf)

<sup>21</sup> [www.carrefour.com/docroot/groupe/C4com/Commerce responsable/Publications/RGG2008GB.pdf](http://www.carrefour.com/docroot/groupe/C4com/Commerce%20responsable/Publications/RGG2008GB.pdf)

## CHINA – CASE STUDY

CHINAGAP WAS ESTABLISHED BY THE CHINESE GOVERNMENT THROUGH ITS CERTIFICATION AND ACCREDITATION ADMINISTRATION OF THE PEOPLE'S REPUBLIC OF CHINA (CNCA) TO MEET BUYER SPECIFICATIONS IN THE EUROPEAN UNION, IN PARTICULAR THOSE SET OUT IN THE EUREPGAP, NOW GLOBALGAP CERTIFICATION SCHEME. IT IS A PROGRAM FOR PRIMARY PRODUCTION OF ALL TYPES OF FARM PRODUCTS.

To maintain the integrity of its Filière Qualité Carrefour products, the Groupe Carrefour deploys a wide range of tools, including: internal controls within the supply groups; third-party audits of the groups according to any government-mandated product certification requirements; food safety audits at primary production and processing, often to GlobalGAP or a GFSI-benchmarked standard; and audits by Groupe Carrefour. In China, the fresh produce Filière Qualité included: Newhall navel oranges, Fuji apples and 15 lines of vegetables grown on designated supplier farms<sup>22</sup>.

#### 4.4.1 GlobalGAP

As of April 30, 2010, GlobalGAP had licensed 12 certification bodies for China, all of which were subsidiaries or branches of foreign certification bodies<sup>23</sup>. These had certificates outstanding (current) for 270 individual farms under Option 1 and 45 farms under Option 2 (group)<sup>24</sup>.

#### 4.4.2 BRC Global Food Standard:

The BRC Global Standard for Food Safety is a HACCP scheme for food manufacturers. Its *Guideline for Category 5 Fresh Produce* provides guidance on interpreting the requirements of the standard for fresh produce packers falling into Product Category 5: fruit, vegetables and nuts. The BRC registry, also for April 30, 2010, reported 15 fresh produce packers with certificates<sup>25</sup>. The BRC<sup>26</sup> has licensed three (3) certification bodies to operate in China:

- Moody International Certification (China);
- National Britannia Certification Ltd – China; and,
- SGS-CSTC Standards Technical Services Co., Ltd. China.

<sup>22</sup> <ftp://ftp.fao.org/docrep/fao/010/ai416e/ai416e00.pdf>

<sup>23</sup> <http://www2.globalgap.org/apprcbs.html?countryid=46&continentid=17&ScopeID=29&SchemeID=65>

<sup>24</sup> Personal communication by e-mail – April 30, 2010.

<sup>25</sup> [www.brcdirectory.com/](http://www.brcdirectory.com/)

<sup>26</sup> Ibid

## MEXICO – CASE STUDY

THE MEXICAN FRESH PRODUCE SECTOR HAS CONSIDERABLE EXPERIENCE WITH INTERNATIONAL CERTIFICATION SCHEMES.

## 1.0 INTRODUCTION

The fresh produce sector of the Mexican economy has been steadily growing over the past three decades. As of 2006, it utilized less than 8 percent of the land involved in agriculture, following well behind the grains and oilseeds sector at 83 percent. However, over time land use has been shifting to these higher value crops and the volume of production has grown significantly. For example, in 1980, vegetable production was estimated at 4 million metric tons and fruit production at about 7.5 million metric tons. By 2008, vegetable production was nearly 240 percent higher, at 9.5 million metric tons, and fruit production was up by more than 200 percent to 16 million metric tons<sup>1</sup>.

While Mexico produces a wide range of horticultural products, the production for export is highly concentrated. In vegetables the dominant products are tomatoes (33 percent), chili peppers (22 percent), potatoes (17 percent), onions (14 percent) and other (8 percent). In the fruit sector, citrus products predominate, with oranges at 31 percent and lemons at 12 percent. Bananas at 12 percent and mangoes at 11 percent are also important. Avocados represent about 7 percent of production, and the “other” category is larger than in vegetables, at 27 percent<sup>2</sup>.

The major fresh produce development of the past decade (1999-2009) has been the explosive emergence of a greenhouse/shadehouse segment to the Mexican industry. U.S. Department of Agriculture reports<sup>3</sup> that the area under these types of “protected” production has grown from about 750 hectares (ha) in 1999 to about 15,000 ha for 2010, with perhaps 6,000 ha added in the past three years. The main products cultivated are tomatoes, bell peppers, cucumbers and eggplant. Northern producers are targeting the export market and those in the central states are focusing on domestic sales. Small and medium-sized producers have participated in this growth, with government assistance, in the form of grants, but they have also experienced high failure rates related to the adoption of new production competencies.

The structure of farming in Mexico is heavily influenced by the historical land tenure system and by the reforms introduced in the past several decades. About 50 percent of farmland is held as social property (*ejidos and comunidades agrarias* – agrarian communities), with the remainder in private hands. Of the social property, about a third has been allocated in parcels to individuals and the remaining two-thirds is for communal use (e.g. grazing, forestry, etc.). The consequence is that the average farm size in 2001 was about 5 ha (although there can be significant regional variations) and 88 percent of farms were smaller than 10 ha. The small holders – those with private land and the more than 3 million *ejidatarios* – primarily produce for local markets and for household subsistence. The commercial farmers, which, according to a 2006 Organization for Economic Co-operation and Development (OECD) report<sup>4</sup>, represented about 2.6 percent of the private farmers, held about 30 percent of the farmland resources. The legal system further complicates this system by imposing limits on the size of commercial farm holdings. For fruit production the limit is 300 ha; for irrigated land, approximately 100 ha.

Exports of fresh produce from Mexico to the U.S. market are controlled by a mixture of small, medium and large firms, with many of the latter being companies that operate on both sides of the border. Padilla Bernal<sup>5</sup> describes the Zacatecas-protected tomato industry as being highly concentrated, with a few companies controlling a large part of production.

1 Rabobank (2009)

2 Ibid

3 USDA FAS (2010)

4 OECD (2006)

5 Padilla Bernal (2010)

## MEXICO – CASE STUDY

TWO MAIN AGENCIES ARE RESPONSIBLE FOR SAFETY OF BOTH FRESH AND PROCESSED FOOD PRODUCTS: HEALTH SECRETARIAT OR MINISTRY (SECRETARÍA DE SALUD - SSA) & SECRETARIAT (MINISTRY) OF AGRICULTURE, LIVESTOCK, RURAL DEVELOPMENT, FISHERIES AND FOOD (SECRETARÍA DE AGRICULTURA, GANADERÍA, DESARROLLO RURAL, PESCA Y ALIMENTACIÓN - SAGARPA)

Romero<sup>6</sup> describes a similar situation in Michoacan, where a majority of the larger avocado producers run a vertically integrated system and have established relationships with U.S. customers. However, the volume they ship as a group is less than the volume shipped by each of the major U.S.-owned packers such as Calavo de Mexico, Mission de Mexico or Fresh Directions. Romero concludes that this type of concentration also prevails in servicing the European, Canadian and Japanese markets.

## 2.0 THE NATIONAL FOOD SAFETY REGIME

Mexico's food laws are set out within a legal framework where the Constitution empowers the President and Congress to promulgate laws, regulations and standards. The regulatory process is based on the "Federal Law of Metrology and Standardization" (Ley Federal sobre Metrología y Normalización. DOF-30-04-2009). This law provides for two types of regulations – mandatory Normas Oficiales Mexicanas (NOMs) and voluntary Normas Mexicanas (NMX).

Mexico's National Standards Office (DGN), an agency of the Secretariat of Economy (SE), coordinates the regulatory process. Other Mexican federal agencies, however, may promulgate regulations within their jurisdictions, but they must work through the Secretariat of Economy and DGN. Other agencies involved in promulgating standards that affect agricultural products include the:

- Secretariat of Agriculture, Livestock, Rural Development, Livestock, Fishery and Food (SAGARPA);
- Secretariat of Natural Resources and Environment (SEMARNAT); and
- Secretariat of Health (SSA).

### 2.1 Food Safety Laws

There are two main laws dealing with food safety. The General Health Act (Ley General de Salud. DOF-30-12-2009)<sup>7</sup> authorizes the federal Health Ministry to empower the Comisión Federal para la Protección Contra Riesgos Sanitarios - COFEPRIS (Federal Commission for Protection Against Health Risks) to:

- Identify and assess risks to human health; and,
- Establish national policies relating to protection against health risks and their implementation with respect to food, plant nutrients, pesticides, toxic substances, biotechnology products, food supplements and additives.

The Plant Protection Law (Ley Federal de Sanidad Vegetal. DOF-18-11-2008)<sup>8</sup> authorizes the Ministry of Agriculture to regulate and promote plant health, as well as to implement, verify and certify systems to reduce risks of physical, chemical and microbiological contamination in the primary production of fruits, vegetables and other crops.

Article 20 of this Law sets some limits on any regulatory initiatives when it states that "official Mexican standards and other legal provisions applicable to systems for risk reduction of contamination during primary production of plants" should be:

- I. Supported by evidence and scientific principles, taking into account, where appropriate, different geographic conditions and other relevant factors;*
- II. Be based on a cost-benefit assessment, including risk analysis;*
- III. Taking into account the standards, guidelines or recommendations, and*
- IV. Canceled when there is no scientific basis to support them."*

<sup>6</sup> Romero (2006)

<sup>7</sup> [www.diputados.gob.mx/LeyesBiblio/pdf/142.pdf](http://www.diputados.gob.mx/LeyesBiblio/pdf/142.pdf)

<sup>8</sup> <http://info4.juridicas.unam.mx/ijure/fed/139/default.htm?s=>

## MEXICO – CASE STUDY

ARTICLE 27 OF THE PLANT HEALTH LAW AUTHORIZES THE SAGARPA TO ISSUE PHYTO-SANITARY CERTIFICATES AND TO ESTABLISH PROCEDURES FOR EXPORTS BASED ON THE RELEVANT MEXICAN LAWS AND THE REQUIREMENTS OF IMPORTING COUNTRIES.

In relation to these laws, the Ministry of Health has published food standards and technical regulations<sup>9</sup> as Mexican Official Standards and these set out specifications for the sanitary safety of all foods for human use. They include:

- Regulations of the Federal Commission for Protection Against Health Risks;
- Regulations of the General Health Law on Sanitary Control Activities of Establishments, Products and Services;
- Internal Regulations of the Ministry of Health;
- Regulation of the General Health Law on advertising;
- Market Regulation;
- Regulation of Sanitary Control of Products and Services;
- Regulation on registration, import and export authorizations; and,
- Export Certificates Pesticide and Vegetable Nutrient Substances and Toxic or Hazardous Materials

## 2.2 The Competent Authorities

In Mexico two main agencies are responsible for safety of both fresh and processed food products:

**Health Secretariat or Ministry** (Secretaría de Salud - SSA) exercises its powers with respect to food, plant nutrients, pesticides, toxic substances, biotechnology products, food supplements and additives through the Federal Commission for Protection Against Health Risks (COFEPRIS).

**Secretariat (Ministry) of Agriculture, Livestock, Rural Development, Fisheries and Food** (Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación - SAGARPA), which acts primarily through the **National Food Safety and Agri-Food Quality Service** (Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria - SENASICA<sup>10</sup>). SENASICA's mandate with respect to fruits and vegetables is set out in sections 7 and 7A of the Plant Protection Law and includes, inter alia:

- Implementing and monitoring compliance with Mexican Official Standards and other applicable laws, and performing acts of authority;
- Promoting and enabling the implementation of systems to reduce risks of contamination in primary production of fruits and vegetables and promoting and guiding research;
- Recognizing and certifying systems to reduce risks of contamination in primary production;
- Promoting international harmonization and equivalence;
- Concluding agreements for effective coordination of actions with the governments of the states and subsidiary bodies;
- Concluding agreements for coordination with other federal authorities, to perform supervisory and regulatory activities;
- Issuing official Mexican standards and other applicable laws related to means of reducing risks of contamination in primary production of fruits and vegetables;
- Issuing technical documents that form the basis for the implementation of Good Agricultural Practices and Management;
- Organizing and operating the certification, inspection and monitoring processes of primary production, where GAPs are applied;
- Recognizing authorized third-party professionals that will assist in the implementation and enforcement of the Buenas Prácticas Agrícolas (BPAs);

<sup>9</sup> [www.cofepris.gob.mx](http://www.cofepris.gob.mx)

<sup>10</sup> [www.senasica.gob.mx](http://www.senasica.gob.mx)



- Providing the competent authority to grant registration, information on residue levels obtained from field studies that contribute to the establishment of maximum residue limits of pesticides; and,
- Issuing regulations concerning systems to minimize risks of contamination in the primary production.

As a policy in this area, the ministry's strategy<sup>11</sup> for the *Sectoral Program of Agricultural Development and Fisheries 2007-2012* includes the following:

*2.2 Protect the country from pests and diseases and improve the health status through specific lines of action:*

- *Avoiding the introduction of pests and diseases through programs of inspection and control of national goods and imported goods;*
- *Preventing the spread of pests and diseases in the country through programs and services for monitoring;*
- *Preserving and improving sanitary conditions in agricultural regions through programs and services for diagnosis, prevention, control and eradication of pests and diseases and the promotion of new technologies; and,*
- *Certification or recognition of national systems to reduce risk of contamination.*

Pesticide registration is done through collaboration with SAGARPA and the Ministry of Environment and Natural Resources (SEMARNAT).

### 2.3 Government Oversight and Conformity Assessment

With respect to fresh produce, the Federal Plant Protection Act authorizes SENASICA to verify and inspect the implementation of laws regarding plant health and reduce risks of contamination of primary products by checking sites that manufacture, formulate, store, market and use pesticides. This program is based on several standards: NOM-033-FITO-1995, NOM-034-FITO-1995 and NOM-052-FITO-1995.

COFEPRIS<sup>12</sup> utilizes a network of more than 100 authorized third-party organizations across Mexico's 25 states to increase its capacity in monitoring and surveillance for food safety and other health-related activities. These organizations include laboratories in the public and private sectors, universities, etc. They undertake analytical tests, conduct sampling, do verification studies of establishments, etc. To be an authorized third party, the applicant must demonstrate that it has the technical, material, human, financial resources and infrastructure to enable it to undertake official activities; have implemented a system quality management based on the relevant standard (NMX-EC-17025-IMNC-2000), to ensure the reliability of the results issued by the organization; and have in place procedures to verify its honesty, transparency and honesty in all activities.

A special Pesticide Monitoring Program<sup>13</sup> for farms certified to BPAs was established by SENASICA in 2007. It involves sampling production units by product and by state.

<sup>11</sup> [www.senasica.gob.mx](http://www.senasica.gob.mx)

<sup>12</sup> [www.cofepris.gob.mx/work/sites/cfp/resources/LocalContent/346/1/tercerosautorizados.pdf](http://www.cofepris.gob.mx/work/sites/cfp/resources/LocalContent/346/1/tercerosautorizados.pdf)

<sup>13</sup> [www.senasica.gob.mx/?id=1030](http://www.senasica.gob.mx/?id=1030)

## MEXICO – CASE STUDY

AS OF APRIL 30, 2010, THE BRC REPORTED THE CERTIFICATION OF FIVE (5) PRODUCE PACKERS IN MEXICO.

### 3.0 LEGAL REQUIREMENTS

#### 3.1 General Food Safety Requirements

The General Health Act (Article 464) establishes as a criminal offense: the forging, counterfeiting, polluting, altering or permitting the falsification, forgery, contamination or adulteration of food, soft drinks, alcoholic beverages or other substance or product for human use or consumption as to pose a danger to health.

#### 3.2 Primary Production

The Plant Protection Law<sup>14</sup> sets out requirements for primary production. It defines both Buenas Prácticas Agrícolas (BPAs or GAPs) and GAPs Audits (Article 5):

*Good Agricultural Practices (GAPs): A set of minimum sanitary measures that are performed at the site of primary production of plants, to ensure minimizing the possibility of physical contamination, chemical and microbiological quality of a plant or fresh product;*

*GAPs Audit: A procedure in which the Secretariat, or a certification body, determines that an agricultural production process complies with the regulations in this area.*

Article 47-C sets out SENASICA's authority to audit farms and other primary production facilities:

*The plants and the places or establishments and facilities related to primary production may be subject, at any time, to reviews, audits, verification and certification of compliance with BPAs to establish the official Mexican standards and other applicable laws in the matter or the authorities of other countries, in the case of export products.*

*These assessments or audits may be conducted at the initiative of the Secretariat or at the request of a party.*

*The assessments, inspections, audits and certifications can be handled by the Secretariat directly or through verification units, authorized third parties, certification bodies and testing laboratories, and the result shall be recorded in a report, opinion or certificate, as appropriate.*

#### 3.3 Packers and Handlers

Article 47-C (see above) sets out SENASICA's authority to audit other primary production facilities. And Article 47-E states that:

*Only individuals whose primary production process plant has a certificate of compliance with BPAs may bear the hallmark of system of contamination risk reduction emitted by the Secretariat.*

These Articles do not specifically mention “best management practices” (BPMs or “buenas practicas de manejo”) associated with packinghouses and storage facilities. However, the protocol for each BPA program includes BPMs.

<sup>14</sup> <http://www.cddhcu.gob.mx/LeyesBiblio/doc/117.doc>

## MEXICO – CASE STUDY

WITH RESPECT TO TRACEABILITY, MEXICOGAP REQUIRES A DOCUMENTED TRACEABILITY SYSTEM THAT ALLOWS TRACING OF THE REGISTERED PRODUCT TO THE PRODUCTION UNIT OR GROUP OF PRODUCERS WHERE IT WAS GROWN AS WELL AS TO THE IMMEDIATE BUYER.

### 3.4 Exporters

Article 27 of the Plant Health Law authorizes the SAGARPA to issue phyto-sanitary certificates and to establish procedures for exports based on the relevant Mexican laws and the requirements of importing countries. SAGARPA has established export programs for specific commodities to provide for this certification (e.g. Mango Export Program – 2010)<sup>15</sup>.

### 3.5 Traceability

The Plant Health Law does not specifically mandate traceability for fresh produce products. The voluntary BPA and BPM programs (see 4.1 below) require farms and packers to maintain the identity of the product from the field to the store, which must include information on the production unit, product, batch, date cutting process on the date of packaging unit and number of boxes of each batch.

## 4.0 PUBLIC AND PRIVATE FOOD SAFETY CERTIFICATION PROGRAMS OPERATING IN MEXICO

### 4.1 Programa de buenas practicas agrícolas (BPA) y de empaque (BPM) (Program of good agricultural practices and packaging)

As noted above, SENASICA's Directorate General of food safety, aquaculture and fisheries (DGIAAP) is mandated to establish audit schemes related to:

- Reducing risks related to pollution (SRRC);
- Ensuring the safety of primary food production and primary processing; and
- Facilitating the implementation of standards required by national and international buyers and improving market access and compliance with safety standards demanded by importing countries.

To achieve these objectives, DGIAAP has created a set of programs<sup>16</sup> that cover good practices for production, storage and packing of fresh fruits and vegetables. The primary documents, which have been revised for 2010, are:

- Lineamientos Generales para la Operación y Certificación de Sistemas de Reducción de Riesgos de Contaminación en la Producción Primaria de alimentos de origen agrícola (April 6, 2010) [General Guidelines for the Operation and Certification of Contamination Risk Reduction Systems in Primary Production of food of agricultural origin]
- Manual de Procedimientos que establece los criterios y requisitos que aplicara la DGIAAP para el reconocimiento de personas físicas y morales como terceros autorizados en materias relacionadas con los Sistemas de Reducción de Riesgos de Contaminación de alimentos de origen agropecuario y pesquero así como plaguicidas de uso agrícola (April 6, 2010 – AGR.04) [Procedures Manual - criteria and requirements for DGIAAP recognition of individuals and corporations as authorized third parties in matters relating to agricultural origin and fisheries as well as agricultural pesticides ]
- Procedimiento para la Auditoría de Sistemas de Reducción de Riesgos de Contaminación en la Producción Primaria (April 6, 2010) [Procedures for the audit of Contamination Risk Reduction Systems in Primary Production]

<sup>15</sup> [www.senasica.gob.mx/?id=893](http://www.senasica.gob.mx/?id=893)

<sup>16</sup> [www.senasica.gob.mx/?doc=16109](http://www.senasica.gob.mx/?doc=16109)



- Procedimiento para la Evaluación y Verificación de los Sistemas de Reducción de Riesgos de Contaminación en la Producción Primaria (April 6, 2010) [Procedures for the Evaluation and Verification of Contamination Risk Reduction Systems in Primary Production]
- Requisitos Generales para el Reconocimiento de Áreas con Aplicación de Buen Uso y Manejo de Agroquímicos en la Producción Primaria de Vegetales (April 6, 2010) [General Requirements for the Recognition of Areas Using Good Practices and Handling of Agricultural Chemicals in the Primary Production of Vegetables]
- Requisitos Generales para la Certificación de Sistemas de Reducción de Riesgos de Contaminación bajo la Modalidad de Áreas Naturales y Áreas Integrales (April 6, 2010) [General Requirements for Contamination Risk Reduction Systems Under the Modalities of Natural and Integral Areas]
- Requisitos Generales para Reconocimiento de Sistemas de Reducción de Riesgos de Contaminación en la Producción Primaria de Alimentos de Origen Agrícola (April 6, 2010) [General Requirements for Contamination Risk Reduction Systems in the Primary Production of Food of Agricultural Origin]

There are also generic guides and protocols for specific crops<sup>17</sup>, including: avocado (July 31, 2006) and green onions, chili peppers, strawberries, lettuce, mangoes and walnuts (Dec. 11, 2007). In 2007, there were 38 crops included in the certification. In 2008, there were 71 crops.

These programs cover the commonly accepted control measures for biological, chemical and physical hazards. They are also designed to include organic production. There is, however, no clear statement that the HACCP approach or a HACCP-based hazard analysis was used in their development. The following list of requirements is drawn from the strawberry program (Protocolo para la Implantación Voluntaria de las Buenas Prácticas Agrícolas y Buenas Prácticas de Manejo en los Procesos de Producción, Cosecha y Empacado de Ffresa [*Fragaria sp*] para Consumo en Fresco, December 2007):

- Objective;
- General;
- Water (sources, irrigation, etc.);
- Production units (land history, preparation, fertilizer, pesticides, field sanitation, field packing, etc.);
- Packaging Unit (premises, pest control, hygiene, storage, etc.);
- Finished Goods Transportation;
- Labeling;
- Personnel Hygiene;
- Training;
- Documentation and Records;
- Traceability System;
- Audit of BPA and BPM;
- Recognition of the application of BPA and BPM.

The protocols also reference a series of NOM standards covering water and pesticides:

- NOM-003-CNA-1996 “Requisitos durante la construcción de pozos de extracción de agua para evitar la contaminación de acuíferos” (“Requirements during construction of water extraction wells to prevent contamination of aquifers);
- NOM-004-CNA-1996 “Requisitos para la protección de acuíferos durante el mantenimiento y rehabilitación de pozos de extracción y para el cierre de pozos en general” (Requirements for the protection of aquifers during maintenance and rehabilitation and extraction wells and for the closure of wells in general);

<sup>17</sup> [www.senasica.gob.mx/?doc=345](http://www.senasica.gob.mx/?doc=345)

## MEXICO – CASE STUDY

PESTICIDE REGISTRATION IS DONE THROUGH COLLABORATION WITH SAGARPA AND THE MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES (SEMARNAT).

- NOM-012-SSA1-1993 “Requisitos sanitarios que deben cumplir los sistemas de abastecimiento de agua para uso y consumo humano públicos y privados” (Health requirements to be met by public and private water systems for human use and consumption);
- NOM-127-SSA1-1994 “Salud ambiental, agua para uso y consumo humano límites permisibles de calidad y tratamientos a que debe someterse el agua para su potabilización” (Environmental health, water for human use and consumption permissible limits of quality and treatments to be applied to water to make it potable);
- NOM-026-STPS-1994 “Colores y señales de seguridad e higiene, e identificación de riesgos por fluidos conducidos en tuberías” (Colors and health and safety signs and risk identification for fluids in pipelines);
- NOM-003-STPS-1999 Actividades agrícolas - uso de insumos fitosanitarios o plaguicidas e insumos de nutrición vegetal o fertilizantes - condiciones de seguridad e higiene” (Agricultural activities - use of plant protection inputs and inputs of pesticides or fertilizer or plant nutrition inputs - health and safety conditions ).

With respect to traceability, the BPA/BPM programs require farms and packers to maintain the identity of the product from the field to the store, which must include information on the production unit, product, batch, cutting process date, date of packaging, unit, and number of boxes of each batch.

For these programs, SENASICA has authority under Article 47-C of the Plant Protection Law to either “*directly or through verification units, authorized third parties, certification bodies and testing laboratories*” audit and then issue a “*report, opinion or certificate, as appropriate.*” Applicants for certification must implement the program and then apply and submit a package of initial information. In practice, DGIAPP is using third parties to conduct the audits. Following an audit, the applicant must complete any corrective actions within 45 days of the audit. Based on either the initial audit report or a review of the corrective action, DGIAPP issues certificates. For perennial crops the programs offer a two (2)-year certification that requires annual internal and external audits with reports submitted to DGIAPP. For annual crops the certification is annual<sup>18</sup>. As of April 30, 2010, DGIAPP had recognized 20 third-party auditors in eight states<sup>19</sup>.

Under the fresh produce schemes, DGIAPP had recognized<sup>20</sup> farms with BPA implementation or primary packers with BMP implementation, as follows:

- In 2006: 220 (158 farms, 62 packers)
- In 2007: 381 (282 farms, 99 packers)
- In 2008: 740 (607 farms, 133 packers)

#### 4.2 México Calidad Suprema (Mexico Supreme Quality)

México Calidad Suprema (Mexico Supreme Quality - MSC)<sup>21</sup> is a generic brand that is registered in the Mexican Institute for Intellectual Property (IMPI) and owned by the federal government through the Department of Economics, SAGARPA and BANCOMEXT.

The scheme is operated by a nonprofit civil partnership made up of growers, packers and their organizations. It was established in February 2003 to assist the federal government in developing and strengthening the competitiveness of the Mexican countryside through outreach, training, consulting, certification and national and international promotion of the brand.

<sup>18</sup> <http://www.senasica.gob.mx/?id=712>

<sup>19</sup> <http://www.senasica.gob.mx/?id=709>

<sup>20</sup> *Evaluación del Programa de Buenas Prácticas Agrícolas (2009)* [www.senasica.gob.mx/?doc=8901](http://www.senasica.gob.mx/?doc=8901)

<sup>21</sup> There is an English language blog: <http://msqinfo.wordpress.com>

## MEXICO – CASE STUDY

PRIMARY PRODUCERS MUST BE IN COMPLIANCE WITH SENASICA'S BPA REQUIREMENTS FOR THE COMMODITY, AND PACKERS MUST BE IN COMPLIANCE WITH SENASICA'S BPM REQUIREMENTS.

México Calidad Suprema (MCS) covers the following agricultural products:

- Fresh and fresh-cut fruits and vegetables;
- Meats (beef, pork);
- Milk;
- Beverages (mezcal, tequila, wine);
- Honey;
- Flowers;
- Coffee; and,
- Vanilla.

For fresh and fresh-cut produce the program covers the supply chain: primary production, packing and, where applicable, fresh-cut processing.

This business-to-consumer brand/program aims to differentiate certified products in the market. Each specification covers: health, safety, quality attributes (color, flavor, appearance, texture, etc.), product traceability and management (e.g. record-keeping, etc.). Certified products must meet Mexican legal requirements and, if for the export market, any requirements of the importing country.

Primary producers must be in compliance with SENASICA's BPA requirements for the commodity, and packers must be in compliance with SENASICA's BPM requirements. To be certified, fresh-cut processors must have HACCP in place. However, as with the BPA/BPM program discussed above, there is no clear statement that MCS requirements for producers or packers are HACCP or HACCP-based.

To obtain certification, both the product and the firms must meet additional MCS requirements. For the product, the packer must operate an internal quality control system that ensures that the products meet the MCS specifications. The certification body must audit this system and verify it. Mexican and international (ISO) sampling standards are referenced in the MCS specifications<sup>22</sup>. The certification body also audits the full set of requirements (health, food safety, quality, traceability, etc.) for the primary production unit, packing facility and processing facility (as required). These system audits can result in certificates that are valid for two (2) years. As part of the monitoring process, unannounced audits can occur.

The scheme's credibility rests in part on its use of accredited certification bodies. MCS involves Mexico's national accreditation body - La Entidad Mexicana de Acreditación, a.c. (EMA) – which is a member of International Accreditation Forum (IAF) and follows ISO/IEC 17011:2004. EMA accredits<sup>23</sup> the certification bodies to audit and certify to the individual scopes of the commodity-specific MCS standards (e.g. tomatoes, peppers, etc.).

As a brand-based, business-to-consumer scheme, the México Calidad Suprema label can be used on products, advertising materials, vehicles, etc.

As of March 2009, MCS<sup>24</sup> reported 94 packers either certified or in the process of being certified to México Calidad Suprema in fruits or vegetables. The number of participating farms (suppliers) is unknown. MCS's blog<sup>25</sup> reported, as of March 25, 2010, that “more than 350 Mexico grower operations were served by MCS” and that “over 290 are already fully certified.” The blog<sup>26</sup> also lists those producers who export to the U.S. or Canada.

<sup>22</sup> [www.normich.com.mx/archivos/OC/mcs/PLIEGOS DE CONDICIONES 12/PC\\_020\\_2005\\_Tomate.pdf](http://www.normich.com.mx/archivos/OC/mcs/PLIEGOS DE CONDICIONES 12/PC_020_2005_Tomate.pdf)

<sup>23</sup> ema's registry can be found at: <http://200.57.73.228:75/NuevoOC/Principal.aspx>. The scope series are prefixed by the letters “PC”.

<sup>24</sup> Site Under Construction: [www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Directorio-de-Productores-\(Marzo-09\).pdf](http://www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Directorio-de-Productores-(Marzo-09).pdf)

<sup>25</sup> <http://msqinfo.wordpress.com>

<sup>26</sup> <http://msqinfo.wordpress.com/products-producers/>

## MEXICO – CASE STUDY

MEXICOGAP CURRENTLY COVERS ONLY FRESH FRUITS AND VEGETABLES. IT IS HACCP-BASED (FOLLOWING THE GLOBALGAP APPROACH) AND INCLUDES ENVIRONMENTAL PROTECTION GAPS, OCCUPATIONAL HEALTH AND SAFETY CRITERIA ON FARMS AND AWARENESS AND RESPONSIBILITY REGARDING SOCIALLY-RELATED ISSUES.

In the marketplace, MCS reports<sup>27</sup> for 2008 that its scheme/brand was recognized by some buyers. In Mexico, it reports they include Wal-Mart (México), Comercial Mexicana, Chedraui, and Costco. In the U.S., the retailers include Wal-Mart USA, Kroger and HEB. And, in Canada, it notes that Loblaw, the largest national retailer, also accepts it.

### 4.3 MexicoGAP

This scheme<sup>28</sup> is also owned by the nonprofit organization that runs the México Calidad Suprema program. MexicoGAP currently covers only fresh fruits and vegetables. It is HACCP-based (following the GlobalGAP approach) and includes environmental protection GAPS, occupational health and safety criteria on farms and awareness and responsibility regarding socially-related issues.

MexicoGAP documents include:

- Puntos de Control y Criterios de Cumplimiento Aseguramiento Integrado de Ranchos - Todo tipo (Versión: 2.0\_Mar08) [Integrated Farm Assurance - Control Points and Compliance Criteria]<sup>29</sup>;
- Lista de Verificación Aseguramiento Integrado de Ranchos - Todo tipo (Versión: 2.0\_Mar08) [Integrated Farm Assurance ]<sup>30</sup>;
- Puntos de Control y Criterios de Cumplimiento Base Cultivos - Todo tipo (Versión: 2.0\_Mar08) [Control Points and Compliance Criteria – Crops Base]<sup>31</sup>;
- Lista de Verificación Base Cultivos - Todo tipo (Versión: 2.0\_Mar08) [Audit Checklist Crops Base - All types]<sup>32</sup>;
- Puntos de Control y Criterios de Cumplimiento Frutas y Hortalizas (Versión: 2.0\_Mar08) [Control Points and Compliance Criteria – Fruits and Vegetables]<sup>33</sup>; and,
- Lista de Verificación Frutas y Hortalizas (Versión: 2.0\_Mar08) [Audit Checklist – Fruits and Vegetables]<sup>34</sup>.

The required practices include, as per GlobalGAP's format:

All Farm Base  
 AF1 Record Keeping and Internal Self-Assessment/Internal Inspection  
 AF2 Site History and Site Management  
 AF3 Workers' Health, Safety and Welfare  
 AF4 Waste and Pollution Management, Recycling and Re-Use  
 AF5 Environment and Conservation  
 AF 6 Complaints  
 AF7 Traceability  
 Crops Base Module  
 CB1 Traceability  
 CB2 Propagation Material  
 CB3 Site History and Site Management  
 CB4 Soil Management  
 CB5 Fertilizer Use  
 CB6 Irrigation/Fertigation  
 CB 7 Integrated Pest Management  
 CB 8 Plant Protection Products  
 Fruit and Vegetables Module

27 Site Under Construction: [www.mexicocalidadsuprema.com.mx](http://www.mexicocalidadsuprema.com.mx)

28 Site Under Construction: [www.mexicocalidadsuprema.com.mx/gap/index.php](http://www.mexicocalidadsuprema.com.mx/gap/index.php)

29 Site Under Construction: [www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC\\_TODOS-TIPO-EXPLORACION.pdf](http://www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC_TODOS-TIPO-EXPLORACION.pdf)

30 Site Under Construction: [www.mexicocalidadsuprema.com.mx/documentos/gap/LV\\_TODO-TIPO-EXPLORACION.pdf](http://www.mexicocalidadsuprema.com.mx/documentos/gap/LV_TODO-TIPO-EXPLORACION.pdf)

31 Site Under Construction: [www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC\\_EXPLORACIONES-AGRICOLAS.pdf](http://www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC_EXPLORACIONES-AGRICOLAS.pdf)

32 Site Under Construction: [www.mexicocalidadsuprema.com.mx/documentos/gap/LV\\_EXPLORACIONES-AGRICOLAS.pdf](http://www.mexicocalidadsuprema.com.mx/documentos/gap/LV_EXPLORACIONES-AGRICOLAS.pdf)

33 Site Under Construction: [www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC\\_FRUTAS&HORTALIZAS.pdf](http://www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC_FRUTAS&HORTALIZAS.pdf)

34 Site Under Construction: [www.mexicocalidadsuprema.com.mx/documentos/gap/LV\\_FRUTAS&HORTALIZAS.pdf](http://www.mexicocalidadsuprema.com.mx/documentos/gap/LV_FRUTAS&HORTALIZAS.pdf)



- FV1 Propagation Material
- FV2 Soil and Substrate Management
- FV3 Irrigation/Fertigation
- FV 4 Harvesting
- FV5 Produce Handling

With respect to traceability<sup>35</sup>, MexicoGAP requires a documented traceability system that allows tracing of the registered product to the production unit or group of producers where it was grown as well as to the immediate buyer. The information must link harvest batches to production records.

To govern the operations of its scheme, MexicoGAP has directly adopted the General Regulations, etc. from GlobalGAP as the basis of its management system<sup>36</sup>. As noted in the case study of Chile, ChileGAP has also taken this approach.

As a consequence, MexicoGAP's certification scheme follows the GlobalGAP pattern with an Option 1 for individual farm certification, with an annual internal audit by the farm and an annual announced external audit by a certification body inspector or auditor. The certification bodies are also required to conduct unannounced audits on 10 percent of the farms they certify under this option. The certification period is three (3) years. Under Option 2 – group certification, farms must have contractual relationship for the purchase of product (e.g. a co-operative, private packer, etc.). The farm must conduct an annual self-inspection. The group does an annual audit and the certification body does both an audit of the group's management system by an approved certification body and audits of a random sample of farms based on the GlobalGAP formula.

MexicoGAP has been benchmarked by GlobalGAP to its Integrated Farm Assurance version 3.0 for the module Crops/Fruit and Vegetables using the modified approved checklist option. As of April 30, 2010, MCS has licensed two (2) domestic certification bodies: NORMEX de Michoacan A.C. and Organismo de Certificación de la Uva de Mesa.

Estimates vary as to the number of farms certified. MCS, as of March 2009<sup>37</sup>, reported 49 farms either certified or in the process of being certified to MexicoGAP in fruits or vegetables. As of April 30, 2010, GlobalGAP reported<sup>38</sup> 24 farms certified to MexicoGAP in its database.

#### 4.4 International Certification Schemes Operating in Mexico

The Mexican fresh produce sector has considerable experience with international certification schemes. This experience has been driven both by its proximity to the U.S. market and the considerable integration that has occurred as a consequence of firms with operations on both sides of the border and by its sales to European retailers. In primary agriculture, the competing international schemes include GlobalGAP, SQF, PrimusLabs and Davis Fresh. At the packinghouse, the American schemes are joined by BRC and perhaps by IFS. Details on the depth of activity for some of these schemes are not available<sup>39</sup>.

##### 4.4.1 GlobalGAP

GlobalGAP<sup>40</sup> is a HACCP-based integrated farm assurance scheme headquartered in Bonn, Germany. It was started in 1997, by a group of European retailers, and went for some years under the name EurepGAP. [The scheme covers a wide range of products and has a specific

35 Site Under Construction: [www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC\\_EXPLORACIONES-AGRICOLAS.pdf](http://www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC_EXPLORACIONES-AGRICOLAS.pdf)

36 Site Under Construction: [www.mexicocalidadsuprema.com.mx/gap/normativos.php](http://www.mexicocalidadsuprema.com.mx/gap/normativos.php)

37 Site Under Construction: [www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Directorio-de-Productores-\(Marzo-09\).pdf](http://www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Directorio-de-Productores-(Marzo-09).pdf)

38 Personal communication by e-mail on April 30, 2010.

39 For example, the registry at [www.primuslabs.com](http://www.primuslabs.com) permits a search of audited suppliers by commodity or by name, but not by country. NSF's main registry does not list the Davis Fresh standards as searchable. NSF's Mexican Web site does not provide a registry.

40 [www.globalgap.org](http://www.globalgap.org)

## MEXICO – CASE STUDY

CERTIFICATION BODIES  
MUST BE LICENSED BY  
THE SQF INSTITUTE.

module for fruits and vegetables that includes primary production and primary packing. The GlobalGAP scheme is HACCP-based and uses generic hazard analyses as the foundation for its three tiered modules (e.g. All-Farm base, Crops base and Fruits and Vegetables base).

As of April 30, 2010, GlobalGAP<sup>41</sup> reported for Mexico 380 individual farms certified under its Option 1, including 24 to MexicoGAP. It reported no farms certified under its Option 2 – Groups.

To provide certification services, GlobalGAP has licensed two (2) Mexican certification bodies and seven (7) foreign certification bodies with branches in Mexico<sup>42</sup>. These are:

#### Domestic

NORMEX de Michoacán A.C.  
Organismo de Certificación de la Uva de Mesa

#### Foreign

BCS Mexico [BCS Öko-Garantie GmbH]  
Bureau Veritas Certification Mexico [Bureau Veritas Certification S.A.U. (Spain)]  
DQS de México S.A. de C.V. [DQS GmbH]  
Intertek Mexico [Intertek Food Services GmbH]  
LATU Sistemas S.A. (México) [LSQA (LATU Sistemas S.A.)]  
NSF-CMi Mexico [NSF-CMi Certification]  
SGS Mexico [SGS Systems and Services Certification]

#### 4.4.2 SQF 1000/2000

SQF 1000 and SQF 2000 are generic HACCP-based food safety programs owned by the Food Marketing Institute (FMI) in the United States. Both schemes are benchmarked by GFSI. They cover primary production (SQF 1000) and subsequent stages in the supply chain such as manufacturers, distributors, brokers (SQF2000).

As of April 30, 2010, SQF<sup>43</sup> had six (6) certificates issued in Mexico for fresh produce primary producers, six (6) for packinghouses (SQF1000 or SQF 2000) and no certificates issued for warehouses.

Certification bodies must be licensed by the SQF Institute. SQF has licensing agreements with two accreditation bodies (ANSI in U.S., JAS-ANZ in Australia) to accredit to the SQF requirements, including ISO Guide 65.

<sup>41</sup> Personal e-mail communication on April 30, 2010.

<sup>42</sup> <http://www2.globalgap.org/apprcbs.html?countryid=138&continentid=3&ScopeID=29&SchemeID=65>

<sup>43</sup> <https://sqfi.muddyboots.biz/Level1Report/>



JAS-ANZ has accredited two (2) certification bodies with Mexico included in their scope: SAI Global Certification Services Pty Ltd (trading as SAI Global) and Siliker Global Certification Services. ANSI has accredited 10 certification bodies to operate globally (e.g. including in Mexico):

- AIB International Inc.
- Bureau Veritas Certification North America (BVCNA)
- Det Norske Veritas Certification Inc.
- Eagle Food Registrations Inc.
- Guelph Food Technology Centre (GFTC)
- NCS International Pty Ltd. (NCSI)
- NSF International
- Scientific Certification Systems Inc.
- The Steritech Group Inc.
- TUV SUD America Inc.

#### 4.4.3 BRC Global Food Standard

The Global Standard for Food Safety is a HACCP scheme for food manufacturers owned by the British Retail Consortium, an association of retailers in the United Kingdom. In addition to its global standard, the BRC has a *Guideline for Category 5 Fresh Produce* that provides guidance on interpreting the requirements of the standard for fresh produce packers falling into Product Category 5: fruit, vegetables and nuts. The BRC scheme is benchmarked by GFSI.

As of April 30, 2010, the BRC reported the certification of five (5) produce packers in Mexico. The scheme has licensed one Mexican certification body (DNV Mexico) and two (2) foreign certification bodies: NSF - CMI Certification and ECCO INGENIEROS S.L.

## PERU – CASE STUDY

PERU MODERNIZED ITS FOOD SAFETY REGIME IN 2008 WITH THE ENACTMENT OF A NEW LAW AND REGULATION:

## 1.0 INTRODUCTION

Peruvian fresh produce exports to global markets have grown substantially in the period from 1995 to 2009. During this time, there has been explosive growth in fresh asparagus exports and a major expansion in mango exports. These trends, according to the Organization for Economic and Co-operation and Development (OECD)<sup>1</sup> and other researchers, have been stimulated by a number of factors, including: the range of climatic and soil conditions, which for some products are conducive to year-round production; domestic economic liberalization; improved market access to importing countries; competitive pressures from other suppliers in more traditional products, such as preserved white asparagus for the European market where the balance has shifted in favor of China; and collaborative initiatives on the part of supply chain participants in Peru.

As a consequence, Peru has become the world's dominant exporter of fresh asparagus, with a market share in 2007<sup>2</sup> of just over 38 percent (96,329 metric tons), and the third-ranking exporter of fresh and frozen vegetables to the United States. The U.S. has also become the largest importer of fresh asparagus, taking 48.4 percent of internationally traded product. In a distant second place was Germany at 9.2 percent. Canada followed at 7 percent. Of U.S. imports of fresh asparagus – 156,000 metric tons in 2009 – Peruvian product represented more than 55 percent by volume and 51 percent by value.

Peru's high value products – asparagus and mango – have energized the local economies where they are grown: the Ica and La Libertad regions for asparagus; and the Piura region for mango. For example, the asparagus industry provides work for an estimated 60,000 people along the coast of Peru, 60 percent of whom are women.

The two industries, while sharing outcomes, have taken different paths. Fresh asparagus production from its beginnings in the 1990s was export oriented and more vertically integrated. Mango production, on the other hand, was traditionally done on smaller farms for the local market. Its export is a more recent activity.

## 2.0 THE NATIONAL FOOD SAFETY REGIME

### 2.1 Food Safety Laws

Peru modernized its food safety regime in 2008 with the enactment of a new law and regulation:

*Legislative Decree No. 1062 – 2008 - Decreto Legislativo que Aprueba la Ley de Inocuidad de los Alimentos* (Legislative Decree That Approves the Law of Food Safety)<sup>3</sup> [Food Safety Law];

*Decreto Supremo N° 034-2008-AG - Reglamento del Decreto Legislativo N° 1062 Ley de Inocuidad de los Alimentos* (Regulation of the Food Safety Law)<sup>4</sup> [Food Safety Regulation].

The new Food Safety Law involves an integrated, farm-to-fork approach to food safety and is based on 10 principles that can be summarized as follows:

- *Right to Safe and Healthy Food* - The whole food chain, competent authorities, businesses and consumers, have a duty to act in a manner consistent with the Codex Alimentarius Commission's General Principles for Food Hygiene;

<sup>1</sup> OECD (2007b)

<sup>2</sup> Shimizu (2009)]

<sup>3</sup> [www.portalagrario.com.pe/dl1062.shtml](http://www.portalagrario.com.pe/dl1062.shtml)

<sup>4</sup> [http://www.senasa.gob.pe/RepositorioAPS/0/3/JER/IA\\_LEG/D.S.%20034-2008-AG%20Reglamento%20de%20la%20Ley%20de%20INOCUIDAD.pdf](http://www.senasa.gob.pe/RepositorioAPS/0/3/JER/IA_LEG/D.S.%20034-2008-AG%20Reglamento%20de%20la%20Ley%20de%20INOCUIDAD.pdf)

## PERU – CASE STUDY

PERUVIAN FRESH PRODUCE EXPORTS TO GLOBAL MARKETS HAVE GROWN SUBSTANTIALLY IN THE PERIOD FROM 1995 TO 2009.

- *Competitiveness* - The safety of food both for domestic consumption and export is an indispensable condition for competitiveness;
- *Collaboration* - The competent authorities and all stages of the food chain have the duty to cooperate and act in an integrated manner.
- *Social Responsibility* - All businesses in the chain are directly responsible for the production, processing and marketing of food that is safe, healthy and fit for human consumption.
- *Transparency and Participation* - All food businesses and consumers, in particular, require access to information about food safety.
- *Science-based* - Decisions about food safety and the management of food safety risks should be science and evidence based.
- *Precaution* - That the competent authorities may take action of an interim and non-trade-distorting manner when the scientific evidence is insufficient, inconclusive or uncertain, or where there are reasonable grounds to fear potentially dangerous effects on human health.
- *Trade facilitation* - The competent authorities and all actors in the food chain must ensure the safety of foods that are traded internationally and, at the same time, promote free trade and avoid creating unnecessary barriers to trade.
- *Simplicity* - All administrative procedures related to food safety for both domestic and foreign trade, should be simple and dynamic, having removed all complexity or unnecessary formality, with requirements being only those necessary and proportionate.
- *Preventive approach* - As a priority, the competent authorities will undertake educational activities and support a quality systems approach, and may do this by entering into agreements with consumer associations, professional (industry) associations, unions, universities and other educational institutions.

The 2008 law and regulation will be supplemented over time with regulations developed for specific segments of the supply chain. For example, a new regulation concerning primary production, Reglamento del Sector Producción de la Ley de Inocuidad de los Alimentos, is currently in development.<sup>5</sup> It will require food businesses and exporters of agricultural products to be registered with the government and to implement, as appropriate, good agricultural practices, good manufacturing practices and HACCP.

In addition to the law and regulations, there are national standards<sup>6</sup> regarding the production and processing of fresh produce:

*NTP 011.125:2006 - Good Agricultural Practices for Horticulture*

and some specific commodities:

*NTP 209.402:2003 ASPARAGUS. Good Agricultural Practices;*

*NTP 209.401:2001 ASPARAGUS. Fresh Asparagus Requirements; and,*

*NTP 209.401:2001 ASPARAGUS. Hygiene Practices for Processing Fresh Asparagus.*

## 2.2 The Competent Authorities

The Food Safety Law establishes new government structures and allocates the responsibility for food safety among several departments of the national government as well as to regional authorities.

<sup>5</sup> [http://ec.europa.eu/food/fvo/rep\\_details\\_en.cfm?rep\\_id=2290](http://ec.europa.eu/food/fvo/rep_details_en.cfm?rep_id=2290)

<sup>6</sup> [www.siicex.gob.pe/siicex/portal5ES.asp?\\_page\\_=352.34600](http://www.siicex.gob.pe/siicex/portal5ES.asp?_page_=352.34600)

## PERU – CASE STUDY

THE FOOD SAFETY LAW ESTABLISHES NEW GOVERNMENT STRUCTURES AND ALLOCATES THE RESPONSIBILITY FOR FOOD SAFETY AMONG SEVERAL DEPARTMENTS OF THE NATIONAL GOVERNMENT AS WELL AS TO REGIONAL AUTHORITIES.

Article 13 establishes the new **Comisión Permanente Multisectorial para la Inocuidad de los Alimentos – COMPIAL (Permanent Multi-Sectoral Commission for Food Safety)**, which is composed of the Ministries of Health, Agriculture and Production and chaired by the Health Ministry. The commission is responsible for:

- Coordinating sectoral activities and civil society to ensure safe food for human consumption along the entire food chain;
- Monitoring the implementation of the new law by the various levels of government;
- Coordinating and exchanging information with consumers and operators involved in all stages of the food chain; and,
- Ensuring that the authorities at all levels of government implement comprehensive recall procedures.

The **Ministry of Health's** Directorate General of Environmental Health (Dirección General de Sanidad Ambiental - DIGESA) has, under Article 14, exclusive jurisdiction at the national level for the safety of food for human consumption, including processed, produced domestically or imported, except for fisheries and aquaculture foods. Its responsibilities (Article 15) include establishing:

- General standards of hygiene throughout the chain of food and beverages for human consumption;
- The conditions, requirements and procedures for the registration of plants, issuing export certificates, etc.;
- Standards for health surveillance, safety, violations and penalties for manufacturing establishments, storage and other food businesses;
- The national system of traceability; and,
- Standards for maximum residue limits (MRLs) for pesticides and veterinary drugs and other chemical contaminants as well as standards on physical and microbiological contaminants.

In addition, DIGESA is responsible for managing:

- Equivalence determinations and the international harmonization of Peruvian food law, including acting as the Codex contact point;
- The national recall process; and,
- The national risk analysis system.

The **Ministry of Agriculture** and its Servicio Nacional de Sanidad Agraria (National Agricultural Health Service) (SENASA) is granted, under Article 16, exclusive jurisdiction for food safety with regard to agricultural production and primary processing of food for human consumption and feed production of domestic or foreign origin. Its responsibilities (Article 17) include:

- Promoting and facilitating the implementation of a system of quality assurance based on HACCP and its prerequisites, in order to ensure safe products and promote the competitiveness of domestic agriculture;
- Issuing technical protocols relating to compliance with food safety standards for production and primary processing;
- Implementing, within the scope of its competence, the traceability system in coordination with other competent authorities;
- Certifying, upon request, the safety of food production and primary processing for the domestic market and foreign trade; and,
- Managing the international equivalence of Peru's food law, to ensure recognition of agricultural and primary processed products by countries to which food is exported.

## PERU – CASE STUDY

ARTICLE 10 OF THE FOOD SAFETY LAW PROVIDES THAT “PRODUCTION SITES AND FACILITIES RELATED TO FOOD PRODUCTION MAY BE SUBJECT, AT ANY TIME, TO MONITORING AND HEALTH CHECKS TO VERIFY THE IMPLEMENTATION OF A SYSTEM OF QUALITY ASSURANCE BASED ON HAZARD ANALYSIS AND CRITICAL CONTROL POINT (HACCP).”

Under Article 20, the regional and local governments have been allocated responsibilities regarding surveillance and control of food processors and food service, organic production, monitoring markets, etc.

**The National Institute for the Defense of Competition and Protection of Intellectual Property (INDECOPI)** has, under its own legislation, the mandate to “promote and guarantee fair competition, consumers’ rights and intellectual property in Peru” while favoring the proper functioning of the market. It is also the Peruvian national standards body and has responsibility for approving recommended Peruvian standards for all sectors and for pronouncing official judgment on the application of regulations that introduce non-tariff, technical barriers to trade. In this capacity it develops and publishes standards that are incorporated by reference into Peruvian laws and regulations, including the Food Safety Law.

### 2.3 Government Oversight and Conformity Assessment

The Food Safety Law and its regulations (Article 24) provide the competent authorities with a wide range of powers for use at any stage of the chain with respect to product that is unfit for human or animal consumption, including:

- Detention;
- Recalls of food and feed;
- Suspension of activities;
- Temporary closure of an establishment;
- Confiscation or forfeiture of products;
- Seizure; and
- Disposal.

Article 10 of the Food Safety Law provides that “production sites and facilities related to food production may be subject, at any time, to monitoring and health checks to verify the implementation of a system of quality assurance based on Hazard Analysis and Critical Control Point (HACCP).” Neither the law nor its regulations specify monitoring/inspection frequencies.

Pesticide registration and use are regulated through an interlocking set of domestic laws and regulations and agreements with the Andean Community.<sup>7</sup> SENASA coordinates residue monitoring with a specialized agency of the Ministry of Health and involves the private sector to ensure that agricultural products for domestic consumption and for export do not exceed the existing maximum residue limits set by the Codex Alimentarius. For products not covered by Codex or by a national MRL, it references the MRL suggested by the manufacturer or a formula approved in the registry.<sup>8</sup> SENASA also provides, upon request, export certificates based on the requirements of importing countries.

## 3.0 LEGAL REQUIREMENTS

### 3.1 General Food Safety Requirements

In line with other countries that have undertaken modernization during the second wave of food safety reform, Peru has adopted a field-to-fork approach for both food for human consumption and animal feed.

7 [http://home.stat-usa.gov/agworld.nsf/505c55d16b88351a852567010058449b/38595b420dc32290852574c2007147e9/\\$FILE/PE8018.PDF](http://home.stat-usa.gov/agworld.nsf/505c55d16b88351a852567010058449b/38595b420dc32290852574c2007147e9/$FILE/PE8018.PDF) and [www.comunidadandina.org/documentos.asp](http://www.comunidadandina.org/documentos.asp)

8 [www.senasa.gob.pe/0/modulos/JER/JER\\_Interna.aspx?ARE=0&PFL=0&JER=578](http://www.senasa.gob.pe/0/modulos/JER/JER_Interna.aspx?ARE=0&PFL=0&JER=578)



Article 5 of the Food Safety Law requires (obligates) food businesses, including primary producers, to provide safe and healthy food by complying with:

- The law and regulations;
- National health and quality standards set by the Ministry of Health;
- The General Food Hygiene Principles of the Codex Alimentarius;
- Traceability requirements;
- Information and labeling requirements; and,
- Recall, notification and corrective action requirements.

The Food Safety Regulation, in Article 8, adds to these general expectations concerning the Codex general principles by requiring the implementation of good agricultural practices, good manufacturing practices, HACCP and other standards established by the competent authorities.

Article 8 of the Food Safety Law prohibits the marketing and use of unsafe feed in the feeding of animals for food production.

### 3.2 Primary Production

The Food Safety Law and its regulations treat all suppliers, including farms, the same with regard to the general requirements for producing safe food and feed. As noted above, specific regulations are being developed for the primary production sector but have not yet been published.

Farms are expected to implement good agricultural practices (GAPs) that are consistent with the Codex General Principles for Food Hygiene. These would, therefore, include practices for:

- Environmental hygiene;
- Hygienic production;
- Handling, storage and transport; and,
- Cleaning, maintenance and personnel hygiene.<sup>9</sup>

The national standard, *NTP 011.125:2006 - Good Agricultural Practices for Horticulture*, establishes best practices for horticultural production to ensure a safe and healthy product based on the application of HACCP principles and procedures compatible with sustainable agriculture and minimal impact on the environment. A parallel document, *NTP 209.402:2003 ASPARAGUS Good Agricultural Practices*, defines GAPs for asparagus production that are designed to ensure a healthy product, free from pollutants and from phytosanitary problems (presence and/or damage caused by pests). These standards combine technologies and techniques that emphasize integrated pest management and natural resource and environmental conservation while minimizing hazards to human health.

### 3.3 Packers and Handlers

Packers and handlers must also meet the basic requirements for all suppliers in the supply chain, that is implementing good manufacturing practices (prerequisite programs) and, where appropriate, HACCP, in line with the Codex guidelines. No specific additional requirements have been identified.

<sup>9</sup> [www.codexalimentarius.net/download/standards/23/exp\\_001e.pdf](http://www.codexalimentarius.net/download/standards/23/exp_001e.pdf)

## PERU – CASE STUDY

THE PERUVIAN FRESH PRODUCE SUPPLY CHAIN HAS ADOPTED SEVERAL INTERNATIONAL CERTIFICATION SCHEMES TO DEMONSTRATE THAT ITS PRODUCTS CAN MEET THE FOOD SAFETY REQUIREMENTS SET BY FOREIGN CUSTOMERS.

### 3.4 Exporters

Food and feed exporters must meet the same requirements as those supplying the domestic market. As noted above, the Food Safety Law's ten principles enshrine trade facilitation as a priority for both government and the supply chain and sets the expectation that all food exports will be safe and meet international requirements.

### 3.5 Traceability

Article 9 of the Food Safety Law requires all stages of production, processing, distribution and marketing to “ensure the traceability of food, feed, animals for food production and any other substance intended to be incorporated into a food or feed. . . .” And Articles 17 and 18 of the Food Safety Regulation prescribe that a food business' traceability system should include information on suppliers of raw materials and supplies of food and feed, as well as customer information including company name, registration, address, goods supplied, date of receipt, etc. This one-step-forward, one-step-back traceability requirement is intended to facilitate recalls and other corrective actions for both domestic and exported products.

## 4.0 PUBLIC/PRIVATE FOOD SAFETY CERTIFICATION PROGRAMS

### 4.1 Peruvian Certification Schemes

No Peruvian-based public or private certification schemes were identified for any segment of the fresh produce supply chain as of May 2010. However, some work is in progress that could possibly lead to the development of such schemes.

### 4.2 International Certification Schemes Operating in Peru

The Peruvian fresh produce supply chain has adopted several international certification schemes to demonstrate that its products can meet the food safety requirements set by foreign customers. Various programs are used by different segments of the produce supply chain. In primary agriculture, the predominant program is GlobalGAP, but the PrimusLabs USGAP program, Tesco's Nurture program and SGS's GAP program are also used. Further down the chain, certifications have been identified to a number of programs including BRC version 5, SQF 2000, GMA-SAFE, PrimusLabs GMP and GMP/HACCP and LRQA's HACCP program<sup>10</sup>. Details about the uptake of all these standards have not been easily found, but where available they are discussed below.

#### 4.2.1 GlobalGAP

As of April 30, 2010, GlobalGAP reported 1,221 farm certifications in Peru for its Integrated Farm Assurance - Fresh Fruit and Vegetable module. Of these, 213 were individual farms certified under its Option 1, and 1,008 were farms certified in groups under its Option 2. As of April 2007, there were 489 farms (Options 1 and 2) certified in Peru, so the use of this standard is growing over time (up by nearly 150 percent for the three years). It can be assumed that most, if not all, of these farms have been certified to meet export requirements, primarily in Europe.

GlobalGAP has licensed nine (9) certification bodies for Peru. Of these, one is a domestic operation and the remaining eight (8) are branches or subsidiaries of certification bodies headquartered elsewhere<sup>11</sup>.

<sup>10</sup> These references have been obtained from links on the Web site of the Instituto Peruano del Espárrago y Hortalizas (IPEH) to information about nine of its 20 members: [www.ipeh.org](http://www.ipeh.org)

<sup>11</sup> For details, see the case study template for Peru.



#### 4.2.2 BRC Global Food Standard

As of April 30, 2010, the BRC reported 17 certifications of produce packers in Peru. These companies market a wide range of products, including asparagus, avocados, table grapes, citrus fruits, various types of peas, mangos and other produce.

The BRC has not licensed any Peruvian certification bodies, but it has licensed three (3) international certifiers - Inspectorate de Argentina S.A., NSF-CMi Certification and SGS United Kingdom Limited.

#### 4.2.3 SQF 2000

As of April 19, 2010, SQF had issued seven (7) certificates in Peru for packinghouses under its SQF 2000 standard<sup>12</sup>. These handled a range of products: asparagus (5), grapes (2) and other products (2).

SQF had licensed 12 certification bodies that could be active in Peru – two with JAS-ANZ accreditation specifically for that country and 10 with ANSI accreditation for the global market<sup>13</sup>.

<sup>12</sup> <https://sqfi.muddyboots.biz/Level1Report/>

<sup>13</sup> For details, see the case study template for Peru.

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FRESH PRODUCE TRADE WITH U.S.

U.S. Imports

Canada's exports of fresh vegetables and fruits to U.S.

Value (2009) \$995.6 million

Source: U.S. Department of Commerce

Legislation

Food Safety

The main Canadian legislation covering food safety is the *Food and Drugs Act*, which prohibits the manufacture or sale of all dangerous or adulterated food products anywhere in Canada. The Act derives its authority from criminal law. The Act has not been significantly updated for over 50 years. It is supplemented by regulations designed to ensure the safety and nutritional quality of foods. Other federal trade and commerce legislation may reference the Act and stipulate additional requirements. Examples include the *Canada Agricultural Products Act*, *Pest Control Products Act*, etc.

**Food and Drugs Act** <http://laws.justice.gc.ca/eng/F-27/index.html>  
(current to January 25, 2010)

**Food and Drug Regulations**  
<http://laws.justice.gc.ca/eng/C.R.C.-c.870/index.html>  
(current to January 25, 2010)

**Canada Agricultural Products Act**  
<http://laws.justice.gc.ca/enC-0.4/index.html> (current to January 25, 2010)

**Fresh Fruit and Vegetable Regulations**  
<http://laws.justice.gc.ca/eng/C.R.C.-c.285/index.html>  
(current to January 25, 2010)

**Code of Practice for the Hygienic Production of Sprouted Seeds**  
<http://www.inspection.gc.ca/english/fssa/frefra/safsals/sprointe.shtml>

**Code of Practice for Minimally Processed Ready-to-Eat Vegetables**  
<http://www.inspection.gc.ca/english/fssa/frefra/safsals/minproe.shtml>



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| <b>Plant Protection Products</b> | <p><b>Food and Drugs Act</b> <a href="http://laws.justice.gc.ca/eng/F-27/index.html">http://laws.justice.gc.ca/eng/F-27/index.html</a><br/>(current to January 25, 2010)</p> <p><b>Food and Drug Regulations</b><br/><a href="http://laws.justice.gc.ca/eng/C.R.C.-c.870/index.html">http://laws.justice.gc.ca/eng/C.R.C.-c.870/index.html</a><br/>(current to January 25, 2010)</p> <p><b>Plant Protection Act</b> <a href="http://laws.justice.gc.ca/eng/P-14.8/index.html">http://laws.justice.gc.ca/eng/P-14.8/index.html</a><br/>(current to January 25, 2010)</p> <p><b>Plant Protection Act Regulations</b> <a href="http://laws.justice.gc.ca/eng/SOR-95-212/index.html">http://laws.justice.gc.ca/eng/SOR-95-212/index.html</a> (current to January 25, 2010)</p> <p><b>Pest Control Products Act</b> <a href="http://laws.justice.gc.ca/eng/P-9.01/index.html">http://laws.justice.gc.ca/eng/P-9.01/index.html</a><br/>(current to January 25, 2010)</p> <p><b>Pest Control Products Regulations</b><br/><a href="http://laws.justice.gc.ca/eng/SOR-2006-124/index.html">http://laws.justice.gc.ca/eng/SOR-2006-124/index.html</a><br/>(current to January 25, 2010)</p> <p>Canadian MRLs are listed in Table II of Division 15 of the Food and Drug Regulations <a href="http://www.hc-sc.gc.ca/cps-spc/pest/protect-proteger/food-nourriture/mrl-lmr-eng.php">http://www.hc-sc.gc.ca/cps-spc/pest/protect-proteger/food-nourriture/mrl-lmr-eng.php</a></p> <p>For registered pesticides having no MRLs listed in Table II, residues are covered under the default of 0.1 ppm.</p> |
| <b>Export</b>                    | <p>The <i>Fresh Fruit and Vegetable Regulations</i> and the <i>Licensing and Arbitration Regulations</i>, with some exceptions, do not apply to exporters or shipments for export.</p> <p>For fresh products falling under the <i>Fresh Fruit and Vegetable Regulations</i> there are no grade requirements to export.</p> <p>Note: USDA requires onions, potatoes, peppers and field tomatoes destined for the U.S. including Puerto Rico to be inspected and certified to meet their import requirements. A CFIA inspection certificate is honored by the USDA.<br/><a href="http://www.inspection.gc.ca/english/fssa/frefra/cdnreqe.shtml">www.inspection.gc.ca/english/fssa/frefra/cdnreqe.shtml</a></p>  |



**Competent Authorities**

**Health Canada (HC)** is responsible for administering the food safety provisions of the *Food and Drugs Act and Regulations*. Health Canada:

- Sets standards and policies governing the safety and nutritional quality of all food sold in Canada. Specifically:
- Engages in research, risk assessment, pre-market review and evaluation of all issues related to food safety and nutrition, and regulation and registration of pest control products and veterinary drugs; and,
- Has responsibility for assessing the effectiveness of the CFIA’s food safety activities.

[www.hc-sc.gc.ca/fn-an/index-eng.php](http://www.hc-sc.gc.ca/fn-an/index-eng.php)

The **Canadian Food Inspection Agency (CFIA)** is responsible for enforcing the Act and Regulations and for the administration and enforcement of the federal trade and commerce legislation regarding food safety and quality.

[www.inspection.gc.ca/english/fssa/fssae.shtml](http://www.inspection.gc.ca/english/fssa/fssae.shtml) CFIA has jurisdiction over interprovincial trade, imports and exports. CFIA:

- Designs, develops and manages inspection-related programs and service standards, including supplying laboratory support;
- Negotiates partnerships with other levels of government, as well as industry and trading partners, with respect to inspection and compliance programs; and,
- Supplies laboratory support for inspection, compliance and quarantine activities.

[Note: Provinces and territories enact legislation governing foods produced and sold within their own jurisdictions. These laws are complementary to federal statutes.]

CFIA also administers several voluntary programs related to food safety:

- **National On-Farm Food Safety Recognition Program** – a process developed with input from the provincial governments and industry to review, assess, recognize and monitor the technical soundness and administrative effectiveness of on-farm food safety systems developed and implemented by Canada’s national producer organizations. This program is fully operational and involves two technical reviews; the first of the technical soundness of the program requirements against criteria consistent with the Codex HACCP principles; and the second, a review of the program’s management system against criteria based, in large part, on ISO requirements. These are followed by an implementation assessment prior to recognition. There are requirements for regular updates of the program requirements and monitoring of the program’s implementation.

[www.inspection.gc.ca/english/fssa/polstrat/reco/recoe.shtml](http://www.inspection.gc.ca/english/fssa/polstrat/reco/recoe.shtml)



**Competent Authorities (continued)**

- **National Post-Farm Food Safety Recognition Program** – a companion program to the above for industry-led, HACCP-based schemes developed for post-farm segments of the supply chain. This program was launched in March 2010. CPMA’s Repacking/ Wholesale Food Safety Program (see below) is expected to undergo Technical Review in the October 2010 pilot.

The **Pest Management Regulatory Agency (PMRA)** at Health Canada registers the use of agricultural chemicals and establishes acceptable residue levels in food by setting maximum residue limits, known as MRLs. Canadian MRLs apply to residues on both domestic and imported fruits and vegetables. [www.hc-sc.gc.ca/cps-spc/pest/index-eng.php](http://www.hc-sc.gc.ca/cps-spc/pest/index-eng.php)

**Mandatory Food Safety Requirements**

**General Food Safety Requirements**

**Food and Drugs Act** (covers intraprovincial, interprovincial, import and in some cases export products) <http://laws.justice.gc.ca/eng/F-27/index.html>

4(1) *No person shall sell an article of food that*

- (a) *Has in or on it any poisonous or harmful substance;*
- (b) *Is unfit for human consumption;*
- (c) *Consists in whole or in part of any filthy, putrid, disgusting, rotten, decomposed or diseased animal or vegetable substance;*
- (d) *Is adulterated; or*
- (e) *Was manufactured, prepared, preserved, packaged or stored under unsanitary conditions.*

4(2) *A food is not adulterated for the purposes of paragraph (1)(d)*

(a) *By an agricultural chemical or its components or derivatives, if the sale of the food is subject to an interim marketing authorization issued under subsection 30.2(1) and the amount of the agricultural chemical and the components or derivatives, singly or in any combination, in or on the food does not exceed the maximum residue limit that is set out in the authorization;*

(b) *By a veterinary drug or its metabolites, if the sale of the food is subject to an interim marketing authorization issued under subsection 30.2(1) and the amount of the veterinary drug and the metabolites, singly or in any combination, in the food does not exceed the maximum residue limit that is set out in the authorization; and*

**General Food Safety Requirements (continued)**

(c) By a pest control product as defined in subsection 2(1) of the *Pest Control Products Act*, chapter 28 of the *Statutes of Canada, 2002*, or its components or derivatives, if the amount of the pest control product or the components or derivatives in or on the food being sold does not exceed the maximum residue limit specified under section 9 or 10 of that Act.

**Regulations:** Canada does not have a generic set of mandatory requirements comparable to 21 CFR Part 110: *Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food*.

The Canadian Food Inspection System Implementation Group, a federal/provincial/territorial initiative, has published *General Principles of Food Hygiene Code of Practice* (First Edition, June 18, 2004). This is a voluntary guidance document based on the Codex document.

[www.cfis.agr.ca/english/regcode/gpfb/gpfb\\_e.pdf](http://www.cfis.agr.ca/english/regcode/gpfb/gpfb_e.pdf)

As of late 2009, CFIA circulated for comment a draft *Guide to Food Safety*. Its purpose is provide the Canadian food industry with guidance on the design, development and implementation of effective food safety systems to be used for the importation, production, storage and handling of food products. The Guide outlines basic establishment and hygiene operational requirements, offers information on the identification and management of food safety hazards and outlines the maintenance of records. To be published in 2010, the Guide is *not intended* to replace existing regulations or directives that may be more appropriate to specific food products.

**Primary Production**

**Food and Drugs Act, Section 4** (see above)

**Fresh Fruit and Vegetable Regulations** (covers interprovincial, imports and some exports) <http://laws.justice.gc.ca/eng/C.R.C.-c.285/index.html>

**Part I. HEALTH AND SAFETY**

3.1 (1) Subject to subsection (2), no person shall market produce in import, export or interprovincial trade as food unless it

- (a) Is not adulterated;
- (b) Is not contaminated;
- (c) Is edible;
- (d) Is free of any live insect, scorpion, snake, spider or other living thing that may be injurious to health;
- (e) Is prepared in a sanitary manner;
- (f) Where irradiated, is irradiated in accordance with Division 26 of Part B of the *Food and Drug Regulations*;
- (g) Meets all other requirements of the *Food and Drugs Act* and the *Food and Drug Regulations* with respect to the produce; and
- (h) Meets the requirements of the *Plant Protection Act* and the *Regulations* made under that Act.



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| <p><b>Primary Production (continued)</b></p> | <p>(2) No person shall mix produce that is adulterated or contaminated with other produce of the same kind that is not adulterated or contaminated in order that the produce meet the requirements of paragraphs (1)(a) to (h).</p> <p>(3) [Repealed, SOR/95-475, s. 2]</p> <p>(4) For the purposes of paragraph (1)(e), "prepared in a sanitary manner" includes preparation in such a manner that</p> <ul style="list-style-type: none"> <li>(a) No stagnant or polluted water is used in the washing or fluming of the produce;</li> <li>(b) Only potable water is used in the final rinsing of the produce to remove any surface contaminant before packing;</li> <li>(c) The final rinse water, if reused, is used only in the initial washing or fluming of the produce; and</li> <li>(d) The produce is handled with equipment that is cleaned regularly.</li> </ul> <p>3.2 Produce that is adulterated or contaminated may be marketed in import, export or interprovincial trade as animal food if it is</p> <ul style="list-style-type: none"> <li>(a) Fit for use as animal food;</li> <li>(b) Labelled with the words "animal food" and "aliments pour animaux";</li> <li>(c) Prepared separately from produce intended for use as food; and</li> <li>(d) Where appropriate, treated to give it the appearance of being inedible.</li> </ul> |
| <p><b>Packinghouse</b></p>                   | <p><b>Food and Drugs Act, Section 4</b> (see above)</p> <p><b>Fresh Fruit and Vegetable Regulations</b><br/> <a href="http://laws.justice.gc.ca/eng/C.R.C.-c.285/index.html">http://laws.justice.gc.ca/eng/C.R.C.-c.285/index.html</a></p> <p><i>Section 3.1 &amp; 3.2 (see above)</i></p> <p><i>Section 40 Inspection</i> – makes provision for produce inspection for the purpose of compliance under various sections of the Regulations (mostly pertaining to grades) and for the purpose of exporting onions, potatoes or field tomatoes to the United States or Puerto Rico</p> <p><i>Section 56</i> provides for the registration of an establishment.</p> <p><i>Sections 59 and 60</i> set out the requirements respecting a building that is a registered establishment:</p> <p><i>59</i> Every registered establishment that is a building shall be situated on land that</p> <ul style="list-style-type: none"> <li>(a) provides or permits good drainage; and</li> <li>(b) is not in proximity to any source of pollution or any place that harbours insects, birds, rodents or other vermin that are likely to contaminate produce in the establishment.</li> </ul>   |

**Packinghouse  
(continued)**

- 60.1 (a) Be of sound construction and in good repair;
- (b) be constructed of material that is durable and free of any noxious constituent;
- (c) Be separate from and have no direct access to areas in which are carried out operations that are incompatible with the handling of produce;
- (d) Be protected against the entry of insects, birds, rodents and other vermin or anything that is likely to contaminate produce;
- (e) Have no room in the establishment open onto premises used for the manufacture or storage of anything that is likely to emit an odour that could affect the flavour of produce;
- (f) Have suitable facilities and equipment for the grading and handling of produce;
- (g) Have areas with temperature, light and ventilation that are suitable for the preservation of produce;
- (h) Have lighting over the grading equipment that provides a minimum illumination of 550 lx as measured by photometer at the surface of the produce that is being graded;
- (i) Be equipped, in those areas where produce or packaging materials are exposed, with light bulbs and fixtures that are of a type that will not cause contamination of produce in the event of breakage;
- (j) Have facilities for the use of inspectors that meet the conditions set out in paragraphs 41(1)(a) and (b);
- (k) Have available to its employees lavatories that are
- (i) Capable of being kept in a clean and sanitary condition,
  - (ii) Adequate in size and equipment for the number of people using them,
  - (iii) Well lighted and ventilated, and
  - (iv) Separate from and not leading directly into any room used for handling produce;
- (l) Be supplied with potable hot and cold water that is protected against contamination and is adequate in quantity and pressure to serve the water needs of the establishment;
- (m) Have adequate facilities and means for the cleaning of equipment; and
- (n) Have adequate means of drainage, waste removal and waste disposal.
- (2) In a registered establishment, water other than potable water may be used for fire protection and auxiliary services, including the washing of soil from raw produce and the fluming of raw produce, if there is no connection between the system for that water and the system for potable water.

**Packinghouse  
(continued)**

**Sections 61 and 62** set out requirements vis-à-vis the operation and maintenance of a registered establishment, including:

*(2) The operation of a registered establishment and the preparation of produce in a registered establishment shall be carried out under the supervision of a competent, responsible employee designated by the operator of the establishment on the application for registration.*

*(3) The building, equipment and all other physical facilities of a registered establishment shall be maintained in a sanitary condition.*

*(4) Operations in relation to the preparation of produce in a registered establishment shall be carried out in a sanitary manner.*

*(5) A registered establishment shall have notices posted in prominent places instructing employees engaged in the preparation of produce to clean their hands immediately after using toilet facilities and that smoking is prohibited.*

*(6) Refuse that is likely to attract insects, birds, rodents or other vermin to a registered establishment must be removed daily.*

*(7) Any detergent, sanitizer or other chemical agent in a registered establishment shall be properly labelled and shall be stored and used in a manner that prevents contamination of produce or a surface with which produce comes into contact.*

*(8) No produce in a registered establishment shall be exposed to a source of contamination.*

*(9) Nothing that is likely to emit an odour that could affect the flavour of produce shall be kept in a registered establishment.*

*(10) Bulk and packaged produce in a registered establishment shall be stored or held in clean areas, under conditions of temperature, light and ventilation that are suitable for the preservation of the produce.*

*(11) No person who suffers from or is a known carrier of a communicable disease or who has an infected lesion that is open or exposed shall work in any area of a registered establishment where there is a danger of contamination with pathogenic microorganisms of the produce or the surface with which the produce comes into contact.*

*(12) All persons engaged in the preparation of produce in a registered establishment shall clean their hands thoroughly immediately after using toilet facilities and as frequently as is necessary to prevent the contamination of produce.*

*(13) All produce shipped interprovincially from a registered establishment shall be prepared in that establishment in accordance with these Regulations.*



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| <p><b>Packinghouse (continued)</b></p> | <p>(14) The owner or operator of a registered establishment shall</p> <p>(a) maintain accurate records of produce shipments from the establishment by kind and grade of produce and size of container, date of shipment and number of containers shipped; and</p> <p>(b) retain those records for the two years following the date of each shipment.</p> <p>(15) The operator of a registered establishment shall, when if requested to do so by an inspector, comply with the requirements of paragraphs 41(1)(c) to (e).</p> <p>(16) The owner or operator of a registered establishment shall notify the Director of any changes in the operations or personnel of the establishment that might affect the registration of the establishment, within 30 days after those changes are made.</p> <p>(17) The owner or operator shall maintain in the registered establishment a file containing samples of all labels marked with the establishment registration number as shown in Schedule IV and shall, on the request of an inspector, submit the file to the inspector for inspection.</p> <p><b>62.</b> Sections 59 and 60 and subsections 61(3), (6) and (10) do not apply to registered establishments where produce is field-packed for direct shipment.</p> |
| <p><b>Handling</b></p>                 | <p>See packinghouse requirements.</p>  |
| <p><b>Transportation</b></p>           | <p>The food safety provisions of the <i>Food and Drugs Act</i> do not apply to the transporters of fresh produce.</p> <p>Note: The Canadian Trucking Alliance has established a HACCP-based certification program that includes a fresh produce module.<br/> <a href="http://www.kasarcanada.com/kasar_pages/Trucking_overview.php">www.kasarcanada.com/kasar_pages/Trucking_overview.php</a> This program has not yet been submitted for recognition under the National Post-Farm Food Safety Recognition Program (see below).</p>  |
| <p><b>Traceability</b></p>             | <p>Canada does not have mandatory traceability requirements for fresh produce.</p> <p>Government and industry have jointly developed the Canadian Food Traceability Data Standard (CFTDS) version 2 2006 or Can-Trace Standard.<br/> <a href="http://www.can-trace.org/portals/0/docs/CFTDS version 2.0 FINAL.pdf">www.can-trace.org/portals/0/docs/CFTDS version 2.0 FINAL.pdf</a><br/>         The standard is maintained by GS1 Canada <a href="http://www.gs1canada.org">www.gs1canada.org</a></p> <p>Federal and Provincial Ministers of Agriculture have endorsed the development of a National Agriculture and Food Traceability System (NAFTS) to meet government, industry and consumer needs. NAFTS is being phased in with the current priority being the livestock and poultry sectors.</p>  |



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| <p><b>Traceability (continued)</b></p>                 | <p>The federal government has established the Canadian Industry Traceability Infrastructure Program (CITIP) to fund the development and implementation of traceability systems based on the principles of NAFTA <a href="http://www.agr.gc.ca">www.agr.gc.ca</a></p>  |
| <p><b>Conformity Assessment/ Inspection</b></p>        | <p>The Canadian Food Inspection Agency monitors fresh fruits and vegetables that are imported and domestically grown and traded under federal standards.</p> <p>CFIA activities include:</p> <ul style="list-style-type: none"> <li>• Inspecting products for their safety and wholesomeness;</li> <li>• Verifying compliance with the federal grade, packaging and labeling requirements; and</li> <li>• Supporting orderly marketing to provide fairness in the marketplace.</li> </ul>   |
| <p><b>Sampling Programs for Pesticide Residues</b></p> | <p>Authority: <i>Canada Agricultural Products Act</i> and the <i>Food and Drugs Act</i></p> <p>Chemical Residue Sampling Program - CFIA conducts a national program to monitor chemical residue levels on domestic and imported fresh fruits and vegetables. Approximately 10,000 samples are analyzed annually in the program's three (3) phases:</p> <ul style="list-style-type: none"> <li>• Monitoring phase - designed to gather data and provide information on the occurrence of chemical residues in a predefined sampling population of fresh fruits and vegetables. The information from monitoring is obtained through random samples of produce that appears normal. This phase is conducted to detect potential violations. If the samples are found to be in violation of established MRLs, the product is put under the surveillance phase.</li> <li>• Surveillance is conducted to confirm presumptive positive results and identify suspected problems. This phase targets a specific commodity to collect and analyze samples from five shipments. If all five samples are found to be in compliance with Canadian regulatory limits, the product is returned to the monitoring list. However, if <i>any one</i> of the five samples is found to be in violation with the MRL, that product is placed under compliance status.</li> <li>• Compliance involves the removal of contaminated product from the marketplace. Regulatory action is always directed at a specific source, such as the grower or shipper. The specific commodity is removed from the marketplace until at least five shipments are tested at a recognized laboratory at the expense of the grower or shipper. If all five samples are found to be in compliance with Canadian regulatory limits, the compliance status will be removed and the product will be placed under the monitoring phase.</li> </ul> <p>Samples for the residue program are sent to accredited labs and are analyzed for more than 260 chemicals (multi-residue analysis).</p> <p>Reports: <a href="http://www.inspection.gc.ca/english/fssa/microchem/resid/reside.shtml">www.inspection.gc.ca/english/fssa/microchem/resid/reside.shtml</a></p> |



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| <p><b>Certification of Laboratories</b></p> | <p>CFIA laboratories are accredited by the Standards Council of Canada (SCC) under the Program for Accreditation of Laboratories (PALCAN), in conformity with CAN-P-4D (ISO/IEC 17025), General Requirements for the Competence of Testing and Calibration Laboratories.</p> <p>CFIA also accepts analytical results from Canadian third-party laboratories if they are accredited under the above program. Acceptance of results is limited to those tests and analytical matrices included in the current scope of the laboratory’s accreditation.</p> |
| <p><b>Certification of Exports</b></p>      | <p>Certification of Canadian fresh produce exports varies by commodity and country and arises out of the need for product to meet the requirements of the importing nation.</p> <p>For exports of onions, potatoes and field tomatoes to the U.S. including Puerto Rico, CFIA provides a certification service that involves an inspection. This inspection covers solely the products (lots) designated for export.</p>   |

**Private Sector Schemes**

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| <p><b>Name</b></p>  | <p><b>CanadaGAP – established in 2008</b><br/>(Previously named the CHC On-Farm Food Safety Program)<br/><a href="http://www.canadagap.ca">www.canadagap.ca</a></p>  |
| <p><b>Owner</b></p> | <p>Canadian Horticultural Council<br/><a href="http://www.hortcouncil.ca">www.hortcouncil.ca</a></p> <p>CHC is a voluntary, not-for-profit, national association whose members are primarily involved in the production and packing of over 120 horticulture crops comprised of fruits, vegetables, flowers and ornamental plants. These members include provincial and national horticultural commodity organizations representing more than 20,000 producers in Canada, as well as allied and service organizations, provincial governments and individual producers. It focuses on an extensive range of needs and concerns, such as: research and technology, trade and industry standards (including food safety), trade relations, plant health issues, regulations, human resource availability and industry relations (growers, packers, wholesalers, retailers and processors).</p> |



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| <p><b>Participation</b></p>               | <p>As of April 23, 2010, the QMI-SAIGlobal registry includes:<br/>         Total: 585 farms<br/>         CHC OFFS program: 557 farms<br/>         CHC Potatoes program: 25 farms</p> <p>[Note: The potato program was the first released by CHC for certification. Farms certified to version 5.0 of that program appear to be transitioning during 2010 to the new version of the CanadaGAP program.]</p>   |
| <p><b>Program Scope</b></p>               |  |
| <p><b>Commodities covered</b></p>         | <p>CanadaGAP covers the following segments of the supply chain:</p> <ul style="list-style-type: none"> <li>• Primary production</li> <li>• Storage intermediaries</li> <li>• Packinghouses</li> </ul> <p>CanadaGAP has 6 commodity groupings or modules:</p> <ul style="list-style-type: none"> <li>• Combined vegetable, Version 4.0 (2010)             <ul style="list-style-type: none"> <li>• Asparagus, Sweet Corn and Legumes</li> <li>• Bulb and Root Vegetables</li> <li>• Fruiting Vegetables</li> </ul> </li> <li>• Greenhouse Production, Version 4.0 (2010)</li> <li>• Leafy Vegetable and Cruciferae, Version 4.0 (2010)</li> <li>• Potato, Version 5.2 (2010)</li> <li>• Small Fruit, Version 4.0 (2010)</li> <li>• Tree and Vine Fruit, Version 4.1 (2010)</li> </ul> <p><a href="http://www.canadagap.ca/uploads/file/English/Tools/Six_Crop_Groupings_May09_Eng.pdf">www.canadagap.ca/uploads/file/English/Tools/Six_Crop_Groupings_May09_Eng.pdf</a></p> |
| <p><b>HACCP, HACCP-based or other</b></p> | <p>CanadaGAP is a HACCP-based certification scheme. It has been developed to meet the requirements of the National On-Farm Food Safety Recognition Program (see above).</p>  |
| <p><b>Other Attributes</b></p>            | <p>CanadaGAP is a food safety program.</p> <p>Environmental issues are covered by provincial regulatory requirements and by the voluntary environmental farm plans developed by primary producers.</p> <p>Labor requirements are covered by regulations in each province.</p>  |



| Requirements        |   |
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| <b>Food Safety</b>  | <p>HACCP-based. Each of the six (6) modules is underpinned by a separate generic hazard analysis rooted in the Codex HACCP approach and employing the tool-kit developed for the national recognition program. The following good practices (GAPs, GMPs) for producers, packers and storage intermediaries are covered:</p> <ul style="list-style-type: none"> <li>Commodity starter products</li> <li>Premises</li> <li>Commercial fertilizers, pulp sludge and soil amendments</li> <li>Manure</li> <li>Compost</li> <li>Mulch and Row Cover Materials</li> <li>Agricultural Chemicals</li> <li>Agricultural Water</li> <li>Equipment</li> <li>Cleaning and Maintenance Materials</li> <li>Waste Management</li> <li>Personal Hygiene Facilities</li> <li>Facilities</li> <li>Employee Training</li> <li>Employee illness</li> <li>Visitor Policy</li> <li>Pest Control</li> <li>Pets</li> <li>Water for Fluming and Cleaning</li> <li>Ice</li> <li>Packaging Materials</li> <li>Growing and Harvesting</li> <li>Sorting, Grading and Packing</li> <li>Storage of Product</li> <li>Transportation (on and off farm)</li> <li>Identification and Traceability</li> <li>Recall</li> <li>Deviations and Crisis Management</li> <li>On-Farm Food Safety Program Review</li> <li>Record-Keeping</li> </ul> |
| <b>Traceability</b> | <p>CanadaGAP requires record-keeping that covers input information, field identification, harvest information, storage location, truck identification (off-site shipment), product identification (date, packaging, Lot/Pack), etc.</p> <p>Some grower/packers are implementing the Produce Traceability Initiative in response to market demands.<br/> <a href="http://www.producetraceability.org">www.producetraceability.org</a></p>  |



**Conformity Assessment**

CanadaGAP has several certification options. These are designed to meet a range of market demands and the requirements of the CFIA recognition program and/or the GFSI or GlobalGAP benchmarking schemes.

Option A1 - Individual Farm - Four-Year Audit Cycle

- Meets the requirements of National On-Farm Food Safety Recognition Program
- Initial On-Site Certification Audit by 3<sup>rd</sup>-Party Certification Body
- On-Site Audit every 4 years by 3<sup>rd</sup>-Party Certification Body
- Sworn Supplier Declarations and Self-Assessment Checklists reviewed by certification body the other 3 years
- Random Audits – selected farms each year
- Lowest cost option
- Audit Activity every year

Option A2 - Individual Farm - Four-Year Audit Cycle

- Initial On-Site Certification Audit by 3<sup>rd</sup>-Party Certification Body
- On-Site Audit every 4 years by 3<sup>rd</sup>-Party Certification Body
- Sworn Supplier Declarations and Self-Assessment Checklists reviewed by certification body the other 3 years
- Random Audits – selected farms
- If selected for Random Audit in a year after 1<sup>st</sup> audit – 4-year certification cycle restarted
- Audit Activity every year

Option A3 - Group Certification - Four-Year Audit Cycle

- Internal Management System for Group
- Group acts as certification body
- 25% of group members audited internally by Group auditors (over 4 years, all farms audited)
- Remaining 75% of group submit Sworn Supplier Declarations and Self-Assessment Checklists reviewed by group auditors
- Annual Internal Audit by group management
- Every 3 years - 3<sup>rd</sup>-Party Certification Body audit of group management system, central facilities & sampling of farms

Option B - Group Certification

- Internal Management System for Group
- Annual Internal Management System audit
- Annual External Management System audit
- Annual Internal Audits of all farms & central facilities by group auditors
- Annual External Audit of Random Sample of Group Members & central facilities



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| <b>Conformity Assessment (continued)</b> | <p>Option C – Individual Farms</p> <ul style="list-style-type: none"> <li>• Annual On-Site Audit by 3<sup>rd</sup>-Party Certification Body</li> <li>• Designed to meet GFSI requirements</li> </ul>  |
| <b>Certification Bodies</b>              | <p>In 2008, CHC entered into a sole-source agreement with QMI-SAI Global to provide certification services. In the province of Quebec, QMI-SAI Global has an operating agreement with Gestion Qualiterra to provide audit services.</p> <p>In 2010, CHC is negotiating licensing agreements with additional certification bodies consistent with the requirements of GFSI benchmarking. As of April 2010, it has agreements with QMI-SAI Global and with the Guelph Food Technology Centre.</p> <p>All CanadaGAP licensed CBs are required to be accredited by a member organization of the International Accreditation Forum (IAF) under ISO Guide 65. Pursuant to GFSI requirements, CHC has established relationships pertaining to accreditation with ANSI and the Standards Council of Canada.</p> <p>CHC operates an auditor training program that meets the requirements of the National On-Farm Food Safety Recognition Program</p> |
| <b>Recognition by Government</b>         | <p>All 6 CanadaGAP modules have completed Technical Review Part 1 (technical soundness) of the National On-Farm Food Safety Recognition Program (see above).</p> <p>CHC has not yet submitted its management system for Technical Review Part 2.</p>  |
| <b>Private Sector Benchmarking</b>       | <p>As of April 2010, CanadaGAP certification Options B and C are being benchmarked to GFSI Guidance Document, Version 5.</p> <p>CanadaGAP also initiated benchmarking to GlobalGAP in 2009.</p>   |
| <b>Use of Marks/Labeling</b>             | <p>CanadaGAP logos cannot be used on product or shipping materials.</p>   |
| <b>Name</b>                              | <p><b>Mushrooms Canada On-Farm Food Safety (OFFS) program</b></p>   |
| <b>Owner</b>                             | <p>Mushrooms Canada<br/> <a href="http://www.mushrooms.ca">www.mushrooms.ca</a></p> <p>Formerly the Canadian Mushroom Growers Association, it was founded in 1955 as a voluntary, nonprofit organization. Membership includes mushroom growers, processors, spawn makers, suppliers, scientists and other allied industries.</p>  |



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| <b>Participation</b>               | As of March 2010, 25 of the estimated 40 commercial mushroom growers in Canada participate, representing about 80% of total commercial production.  |
| <b>Program Scope</b>               |   |
| <b>Commodities covered</b>         | The program covers mushrooms of all types, except those wild crafted, through all phases of mushroom production from raw materials through compost/substrate production, growing and harvesting, packing, storage and shipping.   |
| <b>HACCP, HACCP-based or other</b> | Mushrooms Canada On-Farm Food Safety (OFFS) program is a HACCP-based certification scheme. It has been developed to meet the requirements of the National On-Farm Food Safety Recognition Program (see above) and CFIA's Food Safety Enhancement Program (FSEP).  |
| <b>Other Attributes</b>            | Environmental issues are covered by provincial regulatory requirements and by the voluntary environmental farm plans developed by primary producers. Labor requirements are covered by regulations in each province.  |
| <b>Requirements</b>                |   |
| <b>Food Safety</b>                 | <p>HACCP-based program. Documentation includes a generic model (hazard analysis), requirements, record-keeping templates, audit checklists, etc. Requirements include:</p> <p>Prerequisite Programs:</p> <ul style="list-style-type: none"> <li>Premises</li> <li>Transportation and Storage</li> <li>Equipment</li> <li>Personnel and Training</li> <li>Sanitation and Pest Control</li> <li>Recall</li> </ul> <p>HACCP Plan(s)</p> <ul style="list-style-type: none"> <li>Mushroom Packing</li> <li>Mushroom Growing and Harvesting</li> <li>Substrate Phase II and III</li> <li>Substrate Phase I</li> </ul> |
| <b>Traceability</b>                | The program requires a firm to have a basic traceability program in place that includes proper labeling and record-keeping to facilitate recall or product withdrawal.  |
| <b>Conformity Assessment</b>       | <p>Mushrooms Canada operates a certification scheme in conjunction with third-party audit firms.</p> <p>The certification cycle is 4 years, starting with a full audit and involves partial audits in years 2, 3 and 4.</p>   |



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| <b>Certification Bodies</b>        | <p>Mushrooms Canada issues the certificates based on the results of the audits conducted by a third party.</p> <p>Auditing is done by the Guelph Food Technology Centre’s audit services group. GFTC is accredited by ANSI as a certification body under ISO Guide 65 for various food safety schemes but not for this scheme.</p>   |
| <b>Private Sector Benchmarking</b> | <p>No.</p> <p>The program is, however, recognized by major Canadian and U.S. customers including retailers, food-service distributors and restaurant chains.</p> <p>In the process of enhancing the program to fulfill GFSI equivalency.</p>   |
| <b>Use of Marks/Labeling</b>       | Not used on consumer-ready packaging.  |
| <b>Program Scope</b>               |  |
| <b>Name</b>                        | <b>Good Agriculture and Collection Practices (GACP): Safety, Quality Assurance and Traceability for the Canadian Herb, Spice and Natural Health Products Industry</b>  |
| <b>Owner</b>                       | <b>Canadian Herb, Spice and Natural Health Products Coalition</b><br><a href="http://www.saskherbspice.org/CHSNC/">www.saskherbspice.org/CHSNC/</a>  |
| <b>Participation</b>               | <p>Unknown</p> <p>The GACP Program was launched in 2009. Producers have been trained in most provinces. Several co-operatives have adopted the program.</p>  |
| <b>Commodities covered</b>         | <p>The Coalition and the Canadian Horticultural Council have a memorandum of agreement that clearly identifies the commodities covered by each organization’s OFFS program.</p> <p>The GACP Program covers: spices (primarily seed spices), culinary herbs (greenhouse and field grown), some specialty root crops (primarily for the medicinal market) and wild harvested foods (e.g. mushrooms, berries, fiddleheads, etc.).</p> <p>The program includes primary production, some processing (e.g. drying, etc.), storage and packing.</p> |



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| <b>HACCP, HACCP-based or other</b> | The GACP Program is a HACCP-based food safety and traceability program developed to meet the requirements of the National On-Farm Food Safety Recognition Program and to be consistent with the expectations for the implementation of GAPs by suppliers (e.g. farms) to establishments covered by Natural Health Products (NHP) Regulations ( <a href="http://www.hc-sc.gc.ca/ahc-asc/branch-dirgen/hpfb-dgpsa/nhpd-dpsn/index_e.html">http://www.hc-sc.gc.ca/ahc-asc/branch-dirgen/hpfb-dgpsa/nhpd-dpsn/index_e.html</a> ).   |
| <b>Other Attributes</b>            | <p>Environmental issues such as endangered or at-risk species are covered by the program. Also taken into consideration are Access Benefit Sharing issues.</p> <p>Organic operations and their specific needs were taken into consideration when developing the program as many producers are certified organic or use no chemical pesticides in their operations. Few Pest Control Products are registered for this segment of the industry.</p> <p>Because of the risk-assessment evaluations of "Places, Plants and People" many labor issues are addressed under the People risk-assessment segment. Labor requirements are also covered by regulations in each province.</p> |
| <b>Requirements</b>                |   |
| <b>Food Safety</b>                 | <p>GACP Program requirements (GAPs) cover:</p> <ol style="list-style-type: none"> <li>1. Plant/Product identification</li> <li>2. Pest Control Products Purchase, Storage, Handling and Application</li> <li>3. Purchasing</li> <li>4. Production – On-Farm and Wild Harvesting</li> <li>5. Post harvest processing</li> <li>6. Personnel training</li> <li>7. Preventative maintenance</li> <li>8. Record-Keeping</li> </ol>   |
| <b>Traceability</b>                | <p>Traceability is covered in the program at a level of the one-up, one-down level of traceability that is the cornerstone to the Plant/Product Identification.</p> <p>More advanced traceability modules are being developed for those with additional needs in that area.</p>   |



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| <b>Conformity Assessment</b>     | <p>As of March 2010, the program is designed to incorporate a self-declaration approach, not third-party audits or certification.</p> <p>Enrolled production units must:</p> <ol style="list-style-type: none"> <li>1. Complete the GACP Program training</li> <li>2. Complete and submit a risk assessment that must be approved</li> <li>3. Complete a work plan based on the risk assessment</li> <li>4. Conduct a self-audit and submit the results</li> <li>5. Provide a self-declaration</li> </ol> <p>The Coalition then issues a certificate for one year.</p> <p>In subsequent years, the production unit must complete steps 2 to 5 prior to being issued a new certificate.</p> |
| <b>Certification Bodies</b>      | The program issues certificates to enrollees (see above).  |
| <b>Recognition by Government</b> | The GACP Program has completed Technical Review Part 1 (technical soundness) of the National On-Farm Food Safety Recognition Program.  |
| <b>Benchmarking</b>              | <p>No.</p> <p>Internal benchmarking has commenced vis-à-vis EU and WHO GACPs.</p>  |
| <b>Use of Marks/Labeling</b>     | <p>Product is not certified.</p> <p>Production units can use wording about the program on consumer-packaged product. All wording must be approved by the scheme owner.</p>   |

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| <b>Name</b>  | <b>Repacking and Wholesale Food Safety Program (RWFSP)</b>   |
| <b>Owner</b> | <p>Canadian Produce Marketing Association<br/> <a href="http://www.cpm.ca">www.cpm.ca</a></p> <p>Established in 1925, the Canadian Produce Marketing Association is a not-for-profit organization representing companies that are active in the marketing of fresh fruits and vegetables in Canada from the farm gate to the dinner plate. CPMA's 600 international and Canadian members include major grower/shippers/packers, importer/exporters, carriers, brokers, wholesalers, retailers and food-service distributors, integrating all segments of the fresh produce industry. They are responsible for 90 percent of the fresh fruit and vegetable sales in Canada,</p> |



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| <b>Participation</b>               | <p>Unknown</p> <p>The certification component of the RWFS Program has not been officially launched. However, the program materials have been available since 2005 and it has been adopted by repackers and wholesalers and firms can be audited a third party.</p>   |
| <b>Program Scope</b>               |  |
| <b>Commodities covered</b>         | <p>The RWFS Program covers all fresh produce products and is designed for use by repackers or produce wholesalers.</p>   |
| <b>HACCP, HACCP-based or other</b> | <p>The RWFS Program is a HACCP-based food safety program developed to meet the requirements of the National Post-Farm Food Safety Recognition Program and to be compatible with CanadaGAP.</p>   |
| <b>Other Attributes</b>            | <p>Environmental issues are covered by provincial regulatory requirements and by the voluntary environmental farm plans developed by primary producers.</p> <p>Labor requirements are covered by regulations in each province.</p>   |
| <b>Requirements</b>                |  |
| <b>Food Safety</b>                 | <p>The RWFS Program requires the repacker or wholesaler to implement prerequisite programs and to undertake a site-specific analysis using the tool-kit provided to develop a HACCP plan.</p> <p>The prerequisite programs cover:</p> <ul style="list-style-type: none"> <li>• Premises</li> <li>• Receiving and Storage</li> <li>• Equipment</li> <li>• Personal Hygiene and Sanitary Working Procedures</li> <li>• Sanitation Program</li> <li>• Pest Control Program</li> <li>• Recall and Traceability System</li> </ul> <p>CPMA has developed an online training program for use by repackers and wholesalers. This modular program permits managers and employees to train on either the whole program or on individual parts.</p> |

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| <p><b>Traceability</b></p>                | <p>The RWFS Program requires repackers and wholesalers to establish a traceability program with records of:</p> <ul style="list-style-type: none"> <li>• Kind of product;</li> <li>• Size of container (e.g. Net weight or number of pieces per case);</li> <li>• Date of shipment;</li> <li>• Number of containers shipped;</li> <li>• The destination of the shipment; and</li> <li>• Transporters used to transport the shipment.</li> </ul> <p>CPMA was a lead participant in the development of the Can-Trace data standard, the North American Produce Traceability Initiative (PTI) <a href="http://www.producetraceability.org">www.producetraceability.org</a> and the GS1 - Implementation Guide for Traceability of Fresh Fruits and Vegetables. <a href="http://www.gs1.org/sites/default/files/docs/gsmpt/traceability/Global_Traceability_Implementation_Fresh_Fruit_Veg_i1.pdf">www.gs1.org/sites/default/files/docs/gsmpt/traceability/Global_Traceability_Implementation_Fresh_Fruit_Veg_i1.pdf</a></p> <p>CPMA encourages its members to implement these voluntary requirements.</p> |
| <p><b>Conformity Assessment</b></p>       | <p>CPMA has developed, but not yet implemented, a management system for the RWFS Program. This system is designed to meet the requirements of the government recognition program and GFSI benchmarking.</p> <p>CPMA has also developed and made available an online auditor training module, with tests, for use by licensed certification bodies and others involved in the audit process (e.g. repackers, wholesalers, etc.)</p> <p>When implemented, the certification scheme will provide for the licensing of certification bodies accredited to ISO 17021/ISO 22003.</p> <p>The scheme requires annual audits of certified organizations.</p>  |
| <p><b>Certification Bodies</b></p>        | <p>None licensed to date to provide certification.</p> <p>In April 2010, CPMA entered into an agreement with the Guelph Food Technology Centre (GFTC) to provide interested firms with 3<sup>d</sup>-party audits, but not certification, to the RWFS program requirements.</p>  |
| <p><b>Recognition by Government</b></p>   | <p>CPMA's RWFS Program is scheduled to be the pilot program for the first technical reviews under the National Post-Farm Food Safety Recognition Program in October 2010.</p>  |
| <p><b>Private Sector Benchmarking</b></p> | <p>No.</p> <p>CPMA is expected to apply for GFSI benchmarking in 2010 or 2011.</p>   |
| <p><b>Use of Marks/Labeling</b></p>       | <p>The RWFS Program permits the use of the logo on premises, documents exchanged with customers, etc. It prohibits its use on consumer-level packaging.</p>  |

| International Food Safety Programs |  |
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| <b>Name</b>                        | <b>GlobalGAP</b><br><a href="http://www.globalgap.org">www.globalgap.org</a>   |
| <b>Program Scope</b>               | GlobalGAP is a HACCP-based integrated farm assurance scheme. It covers a wide range of products and has a specific module for fruits and vegetables that covers primary production and primary packing.  |
| <b>Participation</b>               | As of April 30, 2010, GlobalGAP reported for Canada<br><br>Option 1 (Individual): 36 farms<br>Option 2 (Group): 14 farms   |
| <b>Certification Bodies</b>        | As of April 2010, GlobalGAP has licensed 5 foreign-based certification bodies to operate in Canada.<br><br>Bureau Veritas, Canada [Bureau Veritas Certification S.A.U. (Spain)]<br><a href="http://www.us.bureauveritas.com">www.us.bureauveritas.com</a><br>Control Union Canada [Control Union Certifications B.V.]<br><a href="http://www.controlunion.com">www.controlunion.com</a><br>Ecocert Canada [ECOCERT SA] <a href="http://www.ecocertcanada.com">www.ecocertcanada.com</a><br>SAI Global [SAI Global Assurance Services] <a href="http://www.saiglobal.com">www.saiglobal.com</a><br>SGS Canada [SGS Systems and Services Certification] <a href="http://www.sgs.com">www.sgs.com</a> |
| <b>Recognition by Government</b>   | Not in Canada  |
| <b>Name</b>                        |  |
|                                    | SQF (Safe Quality Foods)   |
| <b>Program Scope</b>               | SQF 1000 and SQF 2000 are generic HACCP-based food safety programs for primary production and for subsequent stages in the supply chain (e.g. manufacturers, distributors, brokers).   |
| <b>Participation</b>               | As of April 19, 2010, SQF had certificates issued in Canada for<br><br>Primary producers (SQF 1000): 3<br>Packhouses [Packinghouses?](SQF 1000 or SQF 2000): 10<br>Warehouse/distributor (SQF 2000): 1<br><br><a href="https://sqfi.muddyboots.biz/Level1Report/">https://sqfi.muddyboots.biz/Level1Report/</a>  |

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| <p><b>Certification Bodies</b></p>      | <p>Certification bodies must be licensed by the SQF Institute. SQF has licensing agreements with two accreditation bodies (ANSI in U.S., JAS-ANZ in Australia) to accredit CBs to the SQF requirements, including ISO Guide 65.</p> <p>JAS-ANZ has accredited 3 certification bodies with Canada included in their scope:</p> <p style="padding-left: 40px;">SAI Global Certification Services Pty Ltd Trading as SAI Global<br/>SGS Systems Services Certification Pty Ltd<br/>Silliker Global Certification Services</p> <p>ANSI has accredited 10 certification bodies to operate globally (e.g. including in Canada):</p> <p style="padding-left: 40px;">AIB International Inc.<br/>Bureau Veritas Certification North America (BVCNA)<br/>Det Norske Veritas Certification Inc.<br/>Eagle Food Registrations Inc.<br/>Guelph Food Technology Centre (GFTC)<br/>NCS International Pty Ltd. (NCSI)<br/>NSF International<br/>Scientific Certification Systems Inc.<br/>The Steritech Group Inc.<br/>TUV SUD America Inc.</p> |
| <p><b>Recognition by Government</b></p> | <p>No</p>   |
| <p><b>Name</b></p>                      | <p>BRC Global Standard for Food Safety<br/><a href="http://www.brcglobalstandards.com">www.brcglobalstandards.com</a></p>   |
| <p><b>Program Scope</b></p>             | <p>The Global Standard for Food Safety is a HACCP scheme for food manufacturers.</p> <p>The Guideline for Category 5 Fresh Produce provides guidance on interpreting the requirements of the standard for fresh produce packers falling into Product Category 5: fruits, vegetables and nuts.</p>   |
| <p><b>Participation</b></p>             | <p>As of April 30, 2010, the BRC reported certification of 1 produce packer in Canada.</p>  |
| <p><b>Certification Bodies</b></p>      | <p>The BRC has licensed 2 certification bodies to operate in Canada:</p> <p style="padding-left: 40px;">Guelph Food Technology Centre<br/>QMI-SAI Global</p>  |
| <p><b>Recognition by Government</b></p> | <p>No</p>   |



## FRESH PRODUCE TRADE WITH U.S.

## U.S. Imports

Chile's exports of fresh vegetables and fruits to U.S.

Value (2009) \$1,275.9 million

Source: U.S. Department of Commerce

## Legislation

## Food Safety

National Food Safety Policy (May 2009)

[www.achipia.cl/prontus\\_inocuidad/site/artic/20090921/asocfile/20090921122318/english.pdf](http://www.achipia.cl/prontus_inocuidad/site/artic/20090921/asocfile/20090921122318/english.pdf)

National Food Safety Policy (June 2007)

[http://servicios.minsepres.gob.cl/consultapublica/doc/Pol\\_nac\\_inocuidad\\_alim.pdf](http://servicios.minsepres.gob.cl/consultapublica/doc/Pol_nac_inocuidad_alim.pdf)

Reglamento Sanitario de los Alimentos DTO. N° 977/96 [as amended to April 2009]  
[Food Health Regulation]

[www.redsalud.gov.cl/portal/url/page/minsalcl/g\\_proteccion/g\\_alimentos/prot\\_inocuidad.html](http://www.redsalud.gov.cl/portal/url/page/minsalcl/g_proteccion/g_alimentos/prot_inocuidad.html)

Hygiene of premises

Decree 3.557/1980. Sets out provisions on agricultural protection. Ministry of Agriculture (MINAGRI).

DFL 725/1968. Health Code. Ministry of Health (Ministry).

DFL 1/1994. Labour Code. Ministry of Labour and Social Welfare (MINTRAB).

DS 105/1998. Approves business regulation pesticide applicators and household health (MINSAL).

Water management

Law 20.017/2005. Amending the water code. Ministry of Public Works (MOP).  
DFL 725/1968. Health Code (MINSAL).

Decree 735/1969. Regulation of water services for human consumption (MINSAL).

NCh 1333. 1978. Establishes requirements for water quality for different uses.  
Institute National Standardization (INN).

NCh 409 / 2 Off. 2004. Potable Water, Part 1, Sampling. INN.

NCh 409 / 1 Of. 2005. Potable Water, Part 1, Requirements. INN.

**Food Safety  
(continued)****Liquid waste management**

DS 609/1998. Sets emissions standards for the regulation of contaminants associated with liquid industrial waste discharges to sewer systems. MOP.

DS 90/2000. Regulated pollutant discharges of liquid waste and inland waters surface. MINSEGPRES [Ministry of the Secretary General of the Presidency]

DS 46/2002. Establishes emission standard for liquid waste to groundwater. MINSEGPRES.

Decree 236/1926, 833/1992 as amended by the DS. General rules of sewage for individual septic tanks, filter chambers, contact chambers, cameras and absorbent household latrines. MINSAL.

**Solid waste**

DS 100/1990. It prohibits the use of fire to burn vegetation. MINAGRI

DS 148/2003. Health regulations on hazardous waste management. MINSAL

Nurseries and propagation material handling

Exempt Resolution 1.910/1982 SAG. Sets standards for hatcheries, nurseries and deposits plant (new plantings).

Exempt Resolution 2.954/1996 SAG. Exempt Resolution amending and repealing Resolution 1910

760/1989 Exempt refers to plants of fruit species (new plantings).

**Plant breeding**

Law 19.342/1994. Regulates rights of breeders of new plant varieties. MINAGRI.

Decree 373/1996. Adopts Rules of Law 19,342 that regulates breeders' rights of new plant varieties. Ministry of Agriculture. MINAGRI.

Specific Pest Control for fruit

SAG resolution 1.881/1998. Establishes mandatory control of the citrus leafminer moth (*Phyllocnistis citrella*).

SAG resolution 1.540/2004. Declares the mandatory control of *Aleurodicus* sp., In the Commune of Arica - I Region.

Worker health and safety

Law 16.744/1968. It lays down rules on occupational accidents and diseases. MINTRAB.

Law 18.290/1984. Traffic Law. Ministry of Transport and Telecommunications (MTT).

**Food Safety  
(continued)**

Law 20.123/2006. Regulating the employment contract, the operation of temporary service companies and the employment contract of temporary services. MINTRAB.

DFL 1 / 1994. Labour Code. MINTRAB.

DFL 725/1968. Health Code. MINSAL.

DS 40/1969. Approves regulations on prevention of occupational risks. MINTRAB.

DS 54/1969. Approves regulations for the establishment and operation of joint committees on health and safety. MINTRAB.

DS 18/1982. Quality certification of personal protection against occupational hazards. MINSAL.

DS 594/1999. Regulation on basic health and environmental conditions in places of work. MINSAL. Amended by 201/2001 of MINSAL DS.

DS 63/2005. Approves the Regulations for the implementation of Law No. 20,001, which regulates weight maximum human cargo. MINTRAB.

NCh 1410 - Of. 1978 Health and safety - safety colors. INN.

NCh 1411 / 1 - Of. 1978 Health and safety - Part 1: Safety signs. INN.

NCh 1411 / 2 - Of. 1978 Health and safety - Part 2: Safety signs. INN.

NCh 1411 / 3 - Of. 1978 Health and safety - Part 3: Security cards. INN.

NCh 1411 / 4 - Of. 1978 Health and safety - Part 4: Identification of Hazards of Materials. INN.

NCh 1433-Of. 1978 Location and marking of fire extinguishers. INN.

**Environmental protection**

19.300/1994 on General Law of Environment. MINSEGPRES.

DFL 235/1999. Incentive System for the recovery of degraded soils. MINAGRI.

DS 276/1980. Rules governing the use of fire. MINAGRI.

DS 100/1990. It prohibits the use of fire to vegetation. MINAGRI.

DS 298/1995. Regulates transportation of hazardous cargo through the streets and roads. MTT.

95/2001 DS (DS 30/1997). Regulation of the evaluation of environmental impact. MINSEGPRES.

Decree 83/2005. Fixed DFL regulation 235, 1999, the Ministry of Agriculture, system provides incentives for the recovery of degraded soils. MINAGRI.



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| <p><b>Food Safety (continued)</b></p>   | <p><b>Bodegas and material handling</b></p> <p>DS 379/1986. Regulation on minimum safety requirements for storage and handling of petroleum-derived liquid fuels, for own consumption. Ministry of Economy, Development and Reconstruction.</p>  |
| <p><b>Plant Protection Products</b></p> | <p><b>Management of plant protection products</b></p> <p>Decree 3.557/1980. Sets out provisions on agricultural protection. MINAGRI.</p> <p>DS 594/1999. Regulation on basic health and environmental conditions in places of work. MINSAL. Amended by 201/2001 of MINSAL</p> <p>DS. July 2007 National Commission on Good Agricultural Practices</p> <p>DS 148/2003. Health regulations on hazardous waste management. MINSAL.</p> <p>SAG resolution 1.899/1999. Requirement to declare the existence of obsolete pesticides.</p> <p>SAG resolution 2.195/2000. Establishes requirements for labels of containers of pesticides for agricultural use.</p> <p>SAG resolution 2.196/2000. Sets toxicological classification of pesticides for agriculture.</p> <p>SAG resolution 2.197/2000. Set names and codes of pesticide formulations [for agricultural use.</p> <p><b>Product safety and consumer protection.</b></p> <p>SAG resolution 2.147/2002 Regulatory recognition system for ]applicators of pesticides.</p> <p><b>Methyl bromide use</b></p> <p>Law 20.096/2006. Establishes control mechanisms for substances that deplete the ozone layer. Ministry General Secretariat of the Presidency (MINSEGPRES).[</p> <p>SAG resolution 3.577/2006. It establishes the obligation to report quarterly numbers of methyl bromide purchased, stored, distributed and used for productive activity.</p> <p>Source: <a href="http://www.buenaspracticas.cl/index.php?option=com_content&amp;task=view&amp;id=45&amp;Itemid=120#ANEXO I. MARCO NORMATIVO">http://www.buenaspracticas.cl/index.php?option=com_content&amp;task=view&amp;id=45&amp;Itemid=120#ANEXO I. MARCO NORMATIVO</a></p> |
| <p><b>Export</b></p>                    |  |

**Competent Authorities**

Ministerio de Salud [Ministry of Health] – The Health Code establishes the Ministry as the primary agency responsible for food safety and the Food Health Regulation (Article 4) delegates some of this responsibility to the 13 Regional Health Authorities

[www.minsal.cl](http://www.minsal.cl)

Servicio Agrícola y Ganadero (SAG) [Agricultural and Livestock Service - Ministry of Agriculture] – Its primary functions are:

- Certification of agricultural exports, livestock, forestry, wine and seeds;
- Licensing and inspection of imports of products of plant and animal;
- Control and eradication of diseases and pests of economic importance;
- Registration and licensing of forestry and agricultural inputs, including plant protection products and veterinary products;
- Medical diagnosis and analysis of plant and animal product quality and safety, through the laboratory network; and
- Supervision of compliance with health, environmental and quality regulations of inputs and agricultural products.

[www.minagri.gob.cl](http://www.minagri.gob.cl)

Agencia Chilena para la Inocuidad Alimentaria [ACHIPIA - Chilean Food Safety Agency]

Created in 2005 as an advisory committee to the President of the Republic with the mandate to provide advice “regarding the identification, formulation and implementation of policies, plans, measures and other activities relating to food safety. ...”

It is composed of

- a) The Assistant Secretary of the Presidency, who will preside.
- b) The Assistant Secretary of Public Health.
- c) The Assistant Secretary of Economy.
- d) The Assistant Secretary for Fisheries.
- e) The Secretary of Agriculture.
- f) The Director General of International Economic Relations, Ministry of Foreign Affairs.

The Agency was established to:

- Formulate and propose a National Policy for Food Safety and measures, plans and programs for implementation and compliance;
- Serve as a coordinating body for the implementation of national policy and food safety programs, plans and measures in this framework that are implemented;
- Ensure that the foreign policy of Chile, in those matters that are relevant for safety issues and food security, conforms to the National Policy on Food Safety, for that purpose by promoting coordination between the portfolios represented in the Agency, and making the relevant proposals;

**Competent Authorities (continued)**

- Develop and propose a bill to create a National System for Food Safety Authority and Food Safety Chilena;
- Study the national legislation applicable to food safety and to propose the rules and regulations as are necessary for its completion, including rules regarding labeling and labeling of foods;
- Serve as a coordinating body of public bodies that have powers associated with safety and food safety, particularly in the preparation of proposed procedural guidelines and technical standards, proposals for Hazard Evaluation Procedures, Monitoring and Inspection and care and control of emergency events associated with food; and,
- Develop and deliver to the President of the Republic an annual report containing an assessment of the performance of the national food safety institutions and recommendations for improvement, and other specific reports required of you [change to "of the Agency"?] or which emanate from the development of their tasks.

[www.achipia.cl/prontus\\_inocuidad/site/edic/base/port/home.html](http://www.achipia.cl/prontus_inocuidad/site/edic/base/port/home.html)

**Mandatory Food Safety Requirements****General Food Safety Requirements**

Regulation) of 1996 and its subsequent amendments set out the health conditions that must be adhered to in the production, importation, processing, packaging, storage, distribution and sale of food for human use, in order to protect the health and nutrition of the population and ensure the supply of quality and safe products.

[www.redsalud.gov.cl/portal/url/page/minsalcl/g\\_proteccion/g\\_alimentos/prot\\_inocuidad.html](http://www.redsalud.gov.cl/portal/url/page/minsalcl/g_proteccion/g_alimentos/prot_inocuidad.html) or [www.usdachile.cl/usaeng/doc/tittle%20I.doc](http://www.usdachile.cl/usaeng/doc/tittle%20I.doc) [English translation]

Paragraph I under Title 1 of the Food Health Regulation sets out the "General Principles of Food Hygiene" respecting food establishments:

**Article 5** – Food establishments are places where food products and food additives are produced, processed, preserved, packaged, stored, distributed, sold and consumed.

**Article 6** – Installation, structural change and operation of any food establishment shall require a permit from the Health Agency concerned.

**Article 7** – When applying for a permit to install an establishment, applicant shall submit the following, as appropriate:

- a) Municipal permit in accordance with city plan;
- b) Drawing or sketch of plant and sanitary facilities thereof;
- c) Sketch of heat, odor or vapor venting system, and cold system;
- d) General description of manufacturing processes;
- e) Raw materials to be used;
- f) Applications;
- g) Health quality control systems
- h) Types of foods to be processed
- i) Waste disposal system.



**General Food Safety Requirements**

**Article 8** – A permit will be valid for a term of three years from the date it is granted and will be understood to be automatically renewable for equal and successive periods, unless the owner or legal representative thereof notifies its will to suspend the activities thereof ahead of the expiration of the original term or extensions thereof.

**Article 9** – A permit may only be granted after inspection of the establishment; the permit application shall be processed by the Health Agency concerned within a period of 30 business days from the date when applicant shall have completed the requirements therefor. All visits, inspections, analyses and other actions or proceedings necessary to decide on acceptance or rejection thereof shall take place within such period.

**Article 10** – In the case of such establishments as the Ministry of Health may determine, a permit may be issued without prior inspection.

**Article 11** – From the start of operations, the interested party shall apply general health practices to handling including cultivation, gathering, preparation, processing, packaging, storage, transport, distribution and sale of food, in order to guarantee a harmless and healthy product.

**Article 12** – Food establishments may not be utilized for any purpose other than that wherefor they were authorized.

**Article 13** – The health authorities shall enroll such establishments, to which end it shall carry a register stating the line of business, location and name of the owner thereof.

Title II of the Regulations sets out various requirements for food, including:

**Article 102** – Manufacturing, importing, holding, distributing, marketing, or transferring altered, contaminated, adulterated, or falsified food for whatever reason, is prohibited.

**Primary Production**

Paragraph III of the Food Health Regulation covers “Hygiene requirements in the area of production/collection” and sets out in the following articles key requirements:

ARTICLE 15 requires the farm to not grow, produce or gather food or irrigate with water contaminated with potentially harmful or inadequate sanitation, which could result in unacceptable concentrations of contaminants in food.

ARTICLE 16 requires the farm to protect food from contamination by human, animal, domestic, industrial and agricultural waste whose presence can reach levels that may constitute a risk to health.

ARTICLE 17 requires it to take adequate precautions to ensure that waste products are not used for food or could create a health risk.

ARTICLE 18 covers equipment and containers used in collecting and producing food; their construction, maintenance, cleaning, disinfection, storage, etc. and prohibits the use of containers previously used for toxic materials.

|   |   |
|---|---|
| <p><b>Primary Production (continued)</b></p>    | <p>ARTICLE 19 requires that food which is unfit for human consumption be segregated during harvesting and production and disposed of in such a way that does not lead to contamination of products, water or other food materials.</p> <p>ARTICLE 20 requires food and/or raw materials to be collected and stored under conditions that protect them against contamination and minimize damage and deterioration.</p>  |
| <p><b>Packinghouse</b></p>                      | <p>Paragraph IV sets requirements for the design and construction of food production facilities.</p> <p>Paragraph V sets requirements for facility hygiene (sanitation, pest control, etc.).</p> <p>Paragraph VI sets requirements for personal hygiene.</p> <p>Paragraph VII covers hygiene requirements in food processing, including:</p> <p><i>Article 69.- Establishments producing, processing, preserving and packaging food must comply with Good Manufacturing Practices (GMP) referred to in this regulation, in a systematic and auditable way.</i></p> <p><i>Additionally, establishments can be required by the Regional Health Authority, as determined in the standard technique issued by the Ministry of Health, to implement HACCP, as established in the Chilean Official Standard NCh 2861. Of. 2004, for each production line.</i></p> <p>A modification to Article 69 of the Food Health Regulation, during 2006, established the authority to require HACCP. A revised version was issued in 2008.<br/> <a href="http://www.redsalud.gov.cl/buscar.html?cx=009034170748245959032%3Aq4e5tutuk_m&amp;cof=FORID%3A11&amp;q=Decreto+187+de+2008#1162">www.redsalud.gov.cl/buscar.html?cx=009034170748245959032%3Aq4e5tutuk_m&amp;cof=FORID%3A11&amp;q=Decreto+187+de+2008#1162</a></p> |
| <p><b>Handling</b></p>                          | <p>See above</p>  |
| <p><b>Transportation</b></p>                    | <p>For primary production: <b>ARTICLE 21</b> sets requirements for the transportation of food products (materials, surfaces, sanitation, etc.).</p>   |
| <p><b>Traceability</b></p>                      | <p>Traceability has been identified in the 2009 National Food Safety Policy as a priority (Objective 5.1). The Food Health Regulation does not have a detailed reference to traceability requirements; however, Article 66 requires manufacturers to maintain production and individual lot registers for "at least 90 days beyond the period guaranteed by manufacturer."</p>  |
| <p><b>Conformity Assessment/ Inspection</b></p> | <p>The responsibility for inspection and supervision of compliance of all registered facilities has been delegated to the Regional Health Authorities under the Food Health Regulation (Article 4). This work is undertaken in accordance with "standards and general instructions" issued by the Ministry of Health. It should be noted, however, that food safety is only one aspect of the work undertaken by these agencies.</p>  |



|   |  |
|---|--|
| <b>Sampling Programs for Pesticide Residues</b> | <p>The Ministry of Agriculture is implementing a residue sampling program in stages over the period 2009 – 2012. Prior to this it conducted periodic sampling initiatives (e.g. 2006 and 2008) but did not systematically engage in this activity. An EU inspection undertaken in early 2009 found significant issues that needed correction if EU standards were to be met. It also found that private sector sampling as part of the implementation of GAP programs occurred but also had deficiencies.</p> <p><a href="http://ec.europa.eu/food/fvo/rep_details_en.cfm?rep_id=2167">http://ec.europa.eu/food/fvo/rep_details_en.cfm?rep_id=2167</a></p>   |
| <b>Certification of Laboratories</b>            | <p>The Health Authority has laboratories in all regions that perform analysis of food for domestic consumption. Private laboratories are recognized to do sanitary and quality analysis for both domestic and exported food by the Health Authorities in conjunction with the Public Health Institute under Decree 707/1999 of the Ministry of Health.</p> <p>For primary agricultural products, the Agricultural and Livestock Service has its own laboratories and accredits private laboratories (approximately 25 in total) to do testing related to pesticides and fertilizers for fresh produce and wines.</p> <p>The National Institute for Standardization accredits laboratories under NCh-ISO 17025.Of. 2005.</p> <p>And finally, the new Chilean Food Safety Agency has plans to establish an integrated system of laboratories that perform analysis related to food safety.</p> <p><a href="http://www.achipia.cl/prontus_inocuidad/site/artic/20090928pags/20090928134250.htm">www.achipia.cl/prontus_inocuidad/site/artic/20090928pags/20090928134250.htm</a></p> |
| <b>Certification of Exports</b>                 | <p>The Food Health Regulation applies to exports. Facilities must meet domestic requirements for permits, and non-compliant product that is to be exported must be clearly marked.</p> <p><b>Article 96</b> – Manufacturing, holding, distribution, marketing, or transfer of food processed or packed in Chile is prohibited, even though intended for export, if proceeding from establishments not authorized by the competent health authority.</p> <p><b>Article 97</b> – Export food items not complying with the standards hereunder shall show the key letter “Z” clearly and indelibly printed on the container thereof. Such food items may not be marketed inside the country.</p>  |



| Public sector programs |  |
|------------------------|--|
| <b>Name</b>            | BUENAS PRÁCTICAS AGRÍCOLAS - BPA<br><a href="http://www.buenaspracticas.cl">www.buenaspracticas.cl</a>   |
| <b>Owner</b>           | <p>National Commission on Good Agricultural Practices</p> <p>This organization is a public and private initiative with the mission to advise the Ministry of Agriculture on the formulation of policies to incorporate the concept of Good Agricultural Practices in farm production processes.</p> <p>The Commission is chaired by the Undersecretary of Agriculture and is comprised of:</p> <ul style="list-style-type: none"> <li>Agriculture and Livestock Service (SAG)</li> <li>Agricultural Development Institute (DAP)</li> <li>Office of Agricultural Studies and Policies (PASO)</li> <li>Foundation for Agrarian Innovation (FIA)</li> <li>Institute of Agricultural Research (INIA)</li> <li>National Irrigation Commission (CNR)</li> <li>National Forestry Corporation (CONAF)</li> <li>Forestry Institute (INFOR)</li> <li>Ministry of Health (Ministry)</li> <li>National Clean Production Council - CPL</li> <li>Management Development Division - PROCHILE</li> <li>National Women's Service (SERNAM)</li> <li>Beef Producers Federation (FEDECARNE)</li> <li>Milk Producers Federation (FEDELECHE)</li> <li>Poultry Producers Association (APA)</li> <li>Pork Producers Association (ASPROCER)</li> <li>Fruit Producers Federation (FEDEFRUTA)</li> <li>National Agriculture Society (SNA) - CODESSER</li> <li>Exporters Association (ASOEX)</li> <li>Corporación Chilena de la Madera (CORMA)</li> <li>United Movement of Peasants and Ethnic/Native Chileans (MUCECH)</li> <li>Confederation La Voz del Campo</li> <li>National Confederation of Peasant Cooperatives Chile (CAMPOCOOP)</li> </ul> |
| <b>Participation</b>   | Use of the BPA guides is voluntary. External audits are not conducted.   |



## Program Scope

|                                    |   |
|------------------------------------|---|
| <b>Commodities covered</b>         | <p>BPA Technical Specifications have been published for 18 types of agriculture, including four for fresh produce:</p> <ul style="list-style-type: none"> <li>• Fruit</li> <li>• Vegetables</li> <li>• Berries</li> <li>• Potatoes</li> </ul> <p>The other products include:</p> <ul style="list-style-type: none"> <li>• Wheat</li> <li>• Corn</li> <li>• Rice</li> <li>• Floriculture</li> <li>• Forest Plantation</li> <li>• Forest</li> <li>• Beekeeping</li> <li>• Pigs</li> <li>• Poultry</li> <li>• Eggs</li> <li>• Beef cattle</li> <li>• Dairy Cattle</li> <li>• Goats</li> <li>• Sheep</li> </ul> <p><a href="http://www.buenaspracticas.cl/index.php">www.buenaspracticas.cl/index.php</a></p> |
| <b>HACCP, HACCP-based or other</b> | No.   |
| <b>Other Attributes</b>            | <p>Additional attributes include: labor conditions, worker health and welfare, environment conditions and biodiversity. The series of documents includes two guides related to these practices:</p> <p>Manual - Buenas Prácticas Laborales<br/>         Guía Técnica de Buenas Prácticas Recursos Naturales Agua, Suelo, Aire y Biodiversidad</p> <p><a href="http://www.buenaspracticas.cl/index.php?option=com_remository&amp;Itemid=144&amp;func=select&amp;id=3">www.buenaspracticas.cl/index.php?option=com_remository&amp;Itemid=144&amp;func=select&amp;id=3</a></p>   |



| Requirements                 |  |
|------------------------------|--|
| <b>Food Safety</b>           | <p>The Technical Specifications outline BPAs for primary production and in the case of fruit for packing in the field or in permanent structures adjacent to the fields. From a food safety perspective, they cover chemical, physical and microbiological hazards.</p> <p>Fresh produce documents include:</p> <p style="padding-left: 40px;">Especificaciones Técnicas de Buenas Prácticas Agrícolas</p> <p style="padding-left: 80px;">Frutales y Packing de Campo - 2007 (Fruit)<br/>Cultivo de Hortalizas - 2008 (Vegetables)<br/>Cultivo de Berries - 2004 (Berries)<br/>Cultivo de Papa -2008 (Potatoes)</p> <p><a href="http://www.buenaspracticas.cl/index.php?option=com_remository&amp;Itemid=144&amp;func=select&amp;id=2">www.buenaspracticas.cl/index.php?option=com_remository&amp;Itemid=144&amp;func=select&amp;id=2</a></p> <p>The BPAs cover the following areas (example from vegetable BPA):</p> <ul style="list-style-type: none"> <li>• Internal audit and record-keeping</li> <li>• Crop management</li> <li>• Crop management in greenhouse</li> <li>• Seedling management</li> <li>• Harvesting and post-harvest management</li> <li>• Water management</li> <li>• Soil management</li> <li>• Use of fertilizers</li> <li>• Use of organic fertilizers</li> <li>• Management of plant protection products</li> <li>• Hygiene measures</li> <li>• Pest control and/or delivery</li> <li>• Solid waste management</li> <li>• Liquid waste management</li> <li>• Basic services staff</li> <li>• Security measures</li> <li>• Labor legislation</li> <li>• Training</li> <li>• Environmental aspects</li> </ul> |
| <b>Traceability</b>          | <p>The BPA technical specifications cover only practices on the farm. They require records that will facilitate the tracking of product and of the inputs and other activities related to production and harvest.</p> <p>The fruit technical specification (Part VIII, Section 2) adds further detail and requires "packing records or documents with information from reception to the release of the product, identifying name and location of producer, property name, type of products, harvest date, packing date, characteristics of the process, storage and transportation of the fruit." The BPA also requires the producer to record "the product identification information indicating the significance of codes, names, stamps, bar codes, etc."</p>   |
| <b>Conformity Assessment</b> | <p>There are no audits associated with these technical specifications, beyond the annual internal audit that is required.</p>  |
| <b>Certification Bodies</b>  | <p>None</p>  |



|                                    |   |
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| <b>Recognition by Government</b>   | Yes. The technical specifications are published by the Ministry of Agriculture, and officials from the ministry participated in their development.  |
| <b>Private Sector Benchmarking</b> | No.   |
| <b>Use of Marks/Labeling</b>       | No.   |
| <b>Name</b>                        |   |
|                                    | ChileGAP<br><a href="http://www.chilegap.com">www.chilegap.com</a>  |
| <b>Owner</b>                       |   |
|                                    | Fundacion para el Desarrollo Fruticola – FDF (Fruit Development Foundation)<br><a href="http://www.fdf.cl">www.fdf.cl</a><br><br>Established in 1992, FDF now represents major producers and exporters of fruits and vegetables.  |
| <b>Participation</b>               |   |
|                                    | As of April 19, 2010, the ChileGAP registry reported:<br><br>Certificates: 143<br><br><a href="http://www.chilegap.com/default.asp?idioma=1">www.chilegap.com/default.asp?idioma=1</a><br><br>As of April 30, 2010, GlobalGAP reports that ChileGAP has<br><br>Option 2: 13 producers |
| <b>Program Scope</b>               |   |
| <b>Commodities covered</b>         | Fruits and vegetables, primary production and packing   |
| <b>HACCP, HACCP-based or other</b> | ChileGAP is a HACCP-based program (conforms to the GlobalGAP approach).   |
| <b>Other Attributes</b>            | Covers environment, worker conditions, etc.   |



## Requirements

## Food Safety

Farms must meet Chilean regulatory requirements.

ChileGAP's food safety requirements are an amalgam of Chilean, GlobalGAP and US GAP food safety requirements. Its documentation includes:

For primary production and packing:

Puntos de Control y Criterios de Cumplimiento - Versión 3.0 (Control Points and Compliance Criteria)

Modulo I - Toda la Explotación (All Farm-based)

Modulo II- Base Cultivo (Crops-base)[[]]

Modulo III - Fruta y Vegetales (Fruit & Vegetables)

Listado de Verificación - Versión 3.0 (Audit Checklist), Modulo I - II - III

For nursery production:

Puntos de Control y Criterios de Cumplimiento, Version 1 (Control Points and Compliance Criteria)

Listado de Verificación, Version 1 (Audit Checklist)

[www.chilegap.com/default.asp?idioma=1](http://www.chilegap.com/default.asp?idioma=1)

The Control Points and Compliance Criteria cover the following:

#### All Farm-Based

1. Record-Keeping and Internal Self-Assessment/Internal Inspection
2. Site History and Site Management
3. Workers' Health, Safety and Welfare
4. Waste and Pollution Management, Recycling and Re-Use
5. Environment and Conservation
6. Complaints
7. Traceability

#### Crops-Based Module[[]]

1. Traceability
2. Propagation Material
3. Site History and Site Management
4. Soil Management
5. Fertilizer Use
6. Irrigation/Fertigation
7. Integrated Pest Management
8. Plant Protection Products

#### Fruit and Vegetables Module

1. Propagation Material
2. Soil and Substrate Management
3. Irrigation/Fertigation
4. Harvesting
5. Produce Handling



|                                    |   |
|------------------------------------|---|
| <b>Traceability</b>                | Basic recall requirements.  |
| <b>Conformity Assessment</b>       | <p>ChileGAP has directly adopted the General Regulations, etc. from GlobalGAP as the basis of its management system.<br/> <a href="http://www.chilegap.com/default.asp?idioma=0">www.chilegap.com/default.asp?idioma=0</a></p> <p>ChileGAP's certification scheme involves:</p> <p><b>Option 1 - Individual Farm Certification</b></p> <ul style="list-style-type: none"> <li>• An annual internal audit,</li> <li>• An annual announced external audit by a certification body inspector or auditor,</li> <li>• Unannounced audits by the certification body of 10 percent of the farms it certifies under Option 1 and</li> <li>• A three (3) year certification period</li> </ul> <p><b>Option 2 - Group Certification</b> (where farms have a contractual relationship for the purchase of product [e.g. a co-operative, etc.] )</p> <ul style="list-style-type: none"> <li>• Annual farm self-inspection,</li> <li>• Annual internal audit by the group of all participating farms,</li> <li>• An external audit of the group's management system by an approved certification body and,</li> <li>• An external audit of "a random sample that as a minimum is the square root of the total number of GlobalGAP registered farmers within the Farmer Group."</li> </ul> <p>Bodies providing certification to ChileGAP must be accredited to ISO Guide 65 by a member of either EA or IAF and approved by GlobalGAP.</p> <p>ChileGAP inspectors and auditors must meet GlobalGAP requirements and pass a standard GlobalGAP test.</p> |
| <b>Certification Bodies</b>        | <p>There are 4 certification bodies providing this service in Chile:</p> <ul style="list-style-type: none"> <li>• LSQA (LATU Sistemas S.A.) [based in Uruguay];</li> <li>• Inspectorate de Argentina S.A. [based in Argentina];</li> <li>• NSF-CMi Certification [based in the U.S.]; and,</li> <li>• CPS - Certification of Product and Systems [based in Chile].</li> </ul> <p><a href="http://www.chilegap.com">www.chilegap.com</a></p>   |
| <b>Recognition by Government</b>   | <p>ChileGAP is recognized by the Chilean government.</p> <p>In September 2009, representatives of China (CNCA) and of the ChileGAP program signed an agreement of mutual recognition and standardization of the ChileGAP and ChinaGAP programs.<br/> <a href="http://www.freshplaza.com/news_detail.asp?id=51210">www.freshplaza.com/news_detail.asp?id=51210</a></p>   |
| <b>Private Sector Benchmarking</b> | <p>ChileGAP is benchmarked to GlobalGAP version 3 for Fruits and Vegetables<br/> <a href="http://www2.globalgap.org/full_app_stand.html">http://www2.globalgap.org/full_app_stand.html</a></p>  |
| <b>Use of Marks/Labeling</b>       | <p>The ChileGAP mark can only be used on promotional materials, invoices, etc., but not on product intended for the consumer.</p>   |



| International Food Safety Programs |   |
|------------------------------------|---|
| <b>Name</b>                        | GlobalGAP<br><a href="http://www.globalgap.org">www.globalgap.org</a>   |
| <b>Program Scope</b>               | GlobalGAP is a HACCP-based integrated farm assurance scheme. It covers a wide range of products and has a specific module for fruits and vegetables that covers primary production and primary packing.   |
| <b>Participation</b>               | As of April 30, 2010, GlobalGAP reported for Chile<br><br>Option 1 (Individual) – 1,857 farms<br>Option 2 (Group) – 380 farms   |
| <b>Certification Bodies</b>        | As of April 2010, GlobalGAP has licensed 1 Chilean certification body:<br><br>CPS - Certification of Product and Systems<br><br>And, seven (7) Chilean branch offices of foreign-based certification bodies:<br><br>NSF- CMi Chile [NSF-CMi International]<br>IRAM CHILE [IRAM-Instituto Argentino de Normalizacion y Certificacion]<br>Inspectorate Chile LTDA [Inspectorate de Argentina S.A.]<br>IMO Chile [IMO - Institute for Marketecology]<br>DQS de Chile [DQS GmbH ]<br>BCS Chile [BCS Öko-Garantie GmbH ]<br>Bureau Veritas Certification Chile [Bureau Veritas Certification S.A.U. (Spain) ]<br><br><a href="http://www2.globalgap.org/apprcbs.html">http://www2.globalgap.org/apprcbs.html</a> |
| <b>Recognition by Government</b>   | No  |



|                                  |   |
|----------------------------------|---|
| <b>Name</b>                      | <b>Davis Fresh Programs: US Field GAP, US GAP/Packing, HACCP &amp; GMP</b>  |
| <b>Program Scope</b>             | <p><b>Davis Fresh US Field GAP</b> and the <b>Davis Fresh US GAP/Packing</b> programs are an audit and certification scheme based on the GAPs identified by USDA for fresh produce production and on the FDA "Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables." They are not HACCP-based.</p> <p><b>Davis Fresh HACCP and GMP</b></p> <p>Davis Fresh also has standards for the post-farm segments of the fresh produce supply chain. These include programs for good manufacturing practices (GMPs) and for HACCP.</p>   |
| <b>Participation</b>             | <p>As of April 19, 2010, at least one certification body, LASQ, had registered 191 certificates to the Davis Fresh US Field GAP program.</p> <p><a href="http://www.lsqanet.com">www.lsqanet.com</a></p> <p>As of April 19, 2010, LASQ had also registered 20 certificates to a program referred to as Davis Fresh US GAP/Packing.</p> <p><a href="http://www.lsqanet.com">www.lsqanet.com</a></p> <p>NSF International lists 13 sites in Chile where it has issued separate certificates for Davis Fresh HACCP and GMPs.</p> <p><a href="http://www.nsf.org/international/south_america/chile/certified_companies.pdf">www.nsf.org/international/south_america/chile/certified_companies.pdf</a></p> |
| <b>Certification Bodies</b>      | <p>Two certification bodies were identified:</p> <p>LSQA (LATU Sistemas S.A.) [based in Uruguay]; and,</p> <p>NSF-CMi Certification [based in the U.S.] [Note: NSF International owns Davis Fresh]</p>  |
| <b>Recognition by Government</b> | No  |



|                                  |   |
|----------------------------------|---|
| <b>Name</b>                      | <p><b>BRC Global Standard for Food Safety</b></p> <p><a href="http://www.brcglobalstandards.com">www.brcglobalstandards.com</a></p>   |
| <b>Program Scope</b>             | <p>The Global Standard for Food Safety is a HACCP scheme for food manufacturers.</p> <p>The Guideline for Category 5 Fresh Produce provides guidance on interpreting the requirements of the standard for fresh produce packers falling into Product Category 5: fruits, vegetables and nuts.</p>   |
| <b>Participation</b>             | <p>As of April 30, 2010, the BRC reported certification of 71 produce packers in Chile.</p>   |
| <b>Certification Bodies</b>      | <p>The BRC has licensed 3 certification bodies to operate in Chile:</p> <p style="padding-left: 40px;">Bureau Veritas Certification Chile</p> <p style="padding-left: 40px;">DQS de Chile</p> <p style="padding-left: 40px;">NSF International Chile S.A.</p> <p>Other BRC-licensed certification bodies operating in Chile are:</p> <p style="padding-left: 40px;">Inspectorate de Argentina S.A.</p> <p style="padding-left: 40px;">SGS United Kingdom Ltd</p> <p style="padding-left: 40px;">SAI Global Assurance Services Ltd</p> <p style="padding-left: 40px;">ECCO INGERIEROS SL</p> |
| <b>Recognition by Government</b> | <p>No</p>   |



## FRESH PRODUCE TRADE WITH U.S.

## U.S. Imports

China's exports of fresh vegetables and fruit to the U.S.

Value (2009) \$159 million

Source: U.S. Department of Commerce

## Legislation

## Food Safety

There are two main pieces of legislation in the People's Republic of China that govern the safety of fresh produce for both domestic consumption and export:

**The Food Safety Law of the People's Republic of China** (Food Safety Law) – adopted by the Standing Committee of the National People's Congress on Feb. 28, 2009; and in effect as of June 1, 2009

[unofficial English translation accessed on March 10, 2010, at:

[www.procedurallaw.cn/english/law/200903/t20090320\\_196425.html](http://www.procedurallaw.cn/english/law/200903/t20090320_196425.html) ]

and

**The Law of the People's Republic of China on Agricultural Product Quality Safety** (Agricultural Product Quality Safety Law) – adopted by the Standing Committee of the National People's Congress on April 29, 2006; and in effect as of Nov. 1, 2006.

[unofficial English translation accessed on March 10, 2010, at:

[http://english.agri.gov.cn/ga/plar/200906/t20090623\\_1106.htm](http://english.agri.gov.cn/ga/plar/200906/t20090623_1106.htm)]

These laws are supported by standards, regulations and implementation measures, including, inter alia, the following:

**Implementation Rules of the Food Safety Law of the People's Republic of China** (Food Safety Implementation Rules) adopted by the State Council on July 8, 2009; and effective immediately

[unofficial English translation accessed on March 10, 2010 at: [http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Final%20Food%20Safety%20Law%20Implementation%20Measures\\_Beijing\\_China%20-%20Peoples%20Republic%20of\\_8-](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Final%20Food%20Safety%20Law%20Implementation%20Measures_Beijing_China%20-%20Peoples%20Republic%20of_8-14-2009.pdf)

[14-2009.pdf](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Final%20Food%20Safety%20Law%20Implementation%20Measures_Beijing_China%20-%20Peoples%20Republic%20of_8-14-2009.pdf)

**Circular on the Relevant Issues of Implementation of the Food Safety Law** –

Ministry of Health, June 5, 2009 [unofficial English translation accessed on March 10, 2010, at: [http://gain.fas.usda.gov/Recent%20GAIN%20Publications/MOH%20Circular%20on%20Food%20Safety%20Law\\_Beijing\\_China%20-%20Peoples%20Republic%20of\\_9-28-2009.pdf](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/MOH%20Circular%20on%20Food%20Safety%20Law_Beijing_China%20-%20Peoples%20Republic%20of_9-28-2009.pdf) ]

**Plant Protection Products**

The principal law respecting pesticides is the **Regulations on the Control of Agricultural Chemicals** issued on May 8, 1997, by the State Council. The regulation was revised in 2001 to meet the entry requirements for the WTO and again in 2004. It requires that all pesticides produced in China or imported to China must be registered and that all domestic pesticide producers must be licensed.

[http://english.agri.gov.cn/ga/plar/200906/t20090623\\_1101.htm](http://english.agri.gov.cn/ga/plar/200906/t20090623_1101.htm)

Other laws and regulations contain provisions regarding pesticide products or their use:

- *Product Quality Law*
- *Standardization Law*
- *Advertisement Law*
- *Regulation on Hazardous Chemicals Management, etc.*
- *Implementation Procedure Regulation on Pesticide Administration (1998, 1999)*
- *Advertisement Inspection Measures (1995)*
- *Guideline on Pesticide Safe Use to specify and harmonize with Regulation on Pesticide Administration*

Regarding the use of pesticides, the *Agricultural Product Quality Safety Law*

- Requires that “chemical products as chemical fertilizers, pesticides ... shall be used in a reasonable way by producers of agricultural products to prevent such chemical products from polluting the producing areas of agricultural products” (Article 19);
- A licensing system shall be established for “pesticides, veterinary drugs, feeds and feed additives, fertilizers and veterinary devices, which might affect agricultural product quality safety” (Article 21);
- The Ministry of Agriculture (MOA) and the local authorities “shall, at a regular time schedule, make a random inspection on such agricultural input products as pesticides, veterinary drugs, feeds and feed additives as well as fertilizers, which might endanger the agricultural product quality safety, and shall make public the results” (Article 21).

**Export**

Law of the People’s Republic of China on the Entry and Exit Animal and Plant Quarantine

[http://english.aqsiq.gov.cn/LawsandRegulations/allenglish/200709/t20070903\\_37903.htm](http://english.aqsiq.gov.cn/LawsandRegulations/allenglish/200709/t20070903_37903.htm)

Regulations for the Implementation of the Law of the People’s Republic of China on the Entry and Exit Animal and Plant Quarantine

[http://english.aqsiq.gov.cn/LawsandRegulations/allenglish/200709/t20070905\\_38054.htm](http://english.aqsiq.gov.cn/LawsandRegulations/allenglish/200709/t20070905_38054.htm)

Law of the People’s Republic of China on Import and Export Commodity Inspection [www.china.org.cn/english/government/207368.htm](http://www.china.org.cn/english/government/207368.htm)



|                       |   |
|-----------------------|---|
| Export<br>(continued) | <p><b>Measures for the Supervision and Administration of Inspection and Quarantine of Outbound Fruits (2006)</b><br/> <a href="http://faolex.fao.org/docs/texts/chn70309.doc">http://faolex.fao.org/docs/texts/chn70309.doc</a></p> <p><b>Administrative Measures on Inspection, Quarantine and Supervision for Vegetables Supplied to Hong Kong and Macao</b><br/> <a href="http://www.aqsiq.gov.cn/zwgk/jlgg/zjl/2009/200909/t20090918_127148.htm">www.aqsiq.gov.cn/zwgk/jlgg/zjl/2009/200909/t20090918_127148.htm</a></p>  |
| Competent Authorities | <p>The Chinese system of government allocates responsibilities for the implementation of national legislation among both national and local government bodies.</p> <p><b>Food Safety:</b> Under the 2009 Food Safety Law the following bodies have specific responsibilities:</p> <p><b>Food Safety Commission's (or Committee)</b> mandate is set by the State Council. It was formally established in February 2010 to analyze the food safety situation; guide and coordinate food safety work; make food safety policies; and urge the relevant departments to fulfill their responsibilities in food supervision. Its initial members include three (3) Vice Premiers (and Politburo members) and more than 10 heads or vice heads of government departments in charge of health, finance and agriculture, among others.<br/> <a href="http://english.gov.cn/2010-02/23/content_1539780.htm">http://english.gov.cn/2010-02/23/content_1539780.htm</a></p> <p><b>Ministry of Health (MOH)</b> shall undertake the comprehensive coordination function for food safety and be responsible for the assessment of food safety risks, formulation of food safety standards, release of food safety information, formulation of qualification determination conditions and inspection requirements for food inspection agencies, and organize the investigation and handling of major food safety accidents (Article 4).</p> <p><b>Ministry of Agriculture (MOA)</b> has primary responsibility for the Agricultural Product Quality Safety Law.</p> <p>Within the MOA, the Bureau for Agricultural Food Quality and Safety has responsibility for, inter alia,</p> <ul style="list-style-type: none"> <li>• Drafting related laws, regulations and provisions and giving policy advice;</li> <li>• Formulating development strategies, policies and measures;</li> <li>• Carrying out risk assessments;</li> <li>• Formulating national standards;</li> <li>• Conducting verification and evaluations of national standards;</li> <li>• Monitoring and supervision of agricultural product quality and safety;</li> </ul> |

**Competent Authorities  
(continued)**

- Surveillance (early warning) analysis and information release;
- Guiding the establishment of the agricultural inspection testing system and institution assessment;
- Guiding the management of the agricultural product quality authentication system;
- Authentication and quality of supervision;
- Guiding the establishment of the tracing system for the agri-food quality and safety;
- Supervision of product recalls;
- Enforcement (“crackdown”) vis-à-vis fake agricultural products;

[ [http://english.agri.gov.cn/ga/amoao/organs/200906/t20090625\\_1171.htm](http://english.agri.gov.cn/ga/amoao/organs/200906/t20090625_1171.htm)]

**General Administration of Quality Supervision, Inspection and Quarantine of the People’s Republic of China (AQSIQ)** is the ministerial administrative organ directly under the State Council of the People’s Republic of China in charge of national quality, metrology, entry-exit commodity inspection, entry-exit health quarantine, entry-exit animal and plant quarantine, import-export food safety, certification and accreditation, and standardization, as well as administrative law-enforcement.

<http://english.aqsiq.gov.cn/AboutAQSIQ/Mission/>

**Local Governments** – China has established a tiered jurisdiction that involves 23 provinces, 5 autonomous regions and 4 major municipalities and over 2,800 county-level administrative divisions.

[[http://en.wikipedia.org/wiki/Administrative\\_divisions\\_of\\_China#Province\\_level](http://en.wikipedia.org/wiki/Administrative_divisions_of_China#Province_level)]

These are assigned a range of responsibilities under the Food Safety Law. For example:

*Article 5: A local people’s government at or above the county level shall undertake the overall responsibility for the food safety supervision and administration within its own administrative region, uniformly lead, organize and coordinate the work of food safety supervision and administration within its own administrative region, establish a sound whole-process food safety supervision and administration mechanism, uniformly lead and exercise command in responses to food safety emergencies, improve and execute the food safety supervision and administration accountability system, and appraise, discuss and evaluate the performances of the food safety supervision and administration departments.*

*Article 35: The agriculture administrative department at or above the county level shall intensify the administration and guidance on the use of the agricultural inputs and establish a sound system for the safe use of agricultural inputs.*



**Competent Authorities (continued)**

The Agricultural Product Quality Safety Law allocates responsibilities in a similar fashion:

*Article 3: The administrative department of agriculture of the people’s government at the county level or above shall be responsible for the supervision and inspection of agricultural product quality safety; while the relevant departments of the people’s government at the county level or above shall, in accordance with the scope of duties, be responsible for the relevant work on agricultural product quality safety respectively.*

**Pesticides:**

MOA has the primary responsibility for pesticide registration and supervision.

The Institute for the Control of Agrochemicals, Ministry of Agriculture (ICAMA) was established in 1963, directly under MOA. It has the administrative responsibility for pesticides registration, quality inspection, biological testing, residue test, market supervision, information service, technical exchange, foreign cooperation and consultation. [www.icama.org.cn/en/en.asp](http://www.icama.org.cn/en/en.asp)

**Mandatory Food Safety Requirements**

**General Food Safety Requirements**

Article 3 of the **Food Safety Law** provides that:

*Food producers and business operators shall follow relevant laws, regulations and food safety standards when engaging in food production and business operation activities, be responsible to the society and the general public, ensure food safety, accept social supervision and assume social responsibilities.*

Other articles of the Food Safety Law cover the following:

Article 27 sets of a list of prerequisite requirements for food businesses that cover premises, equipment, sanitation, personnel hygiene, etc.

Article 28 covers various prohibitions, including:

- 1. Food produced with non-food raw materials, or food containing non-food-additive chemical substances and other substances potentially hazardous to human health, or food produced with recycled food as raw materials;*
- 2. Food in which the pathogenic microorganisms, pesticide residues, veterinary medicine residues, heavy metals, pollutants and other substances hazardous to human health exceed the limits as prescribed in the food safety standards;*

**General Food Safety Requirements (continued)**

3. Staple or supplementary food exclusively for infants and other particular groups of people, of which the nutrient ingredients do not meet the food safety standards;
4. Food that is putrid or deteriorated, spoiled by rancid oil or fat, moldy, infested with pests, contaminated and dirty, mixed with strange objects, adulterated and impure, or abnormal in sensory properties;
5. Meat of poultry, livestock, beasts and aquatic animals that died from disease or poisoning or for some unknown cause, and the products made of it;
6. Meat that has not been quarantined by the animal health inspection institution or has failed the quarantine or meat products that have not been inspected or have failed the inspection;
7. Food that is contaminated by packing materials, containers or transport vehicles;
8. Food whose shelf-life has expired;
9. Pre-packed food without labels;
10. Food, the production and business operation of which is expressly banned by the state for anti-disease purpose or for other special needs; and
11. Other food that does not conform to the food safety standards or requirements.

Article 29 requires all food production operations to be licensed, with certain exemptions for some small-scale production units/vendors/workshops.

Article 32 requires food production businesses to “establish and improve its food safety management system, strengthen the training of its employees in respect to food safety knowledge, be provided with full-time or part-time food safety managers, do a good job in inspecting the food which it produces or operates.”

Article 33 encourages food production businesses to voluntarily implement good manufacturing practices (GMPs) and HACCP and provides for certification.

Article 34 requires establishment and implementation of “handler health management systems,” requires annual health examinations and prohibits contact by ill personnel with ready-to-eat food.

Article 36 requires food businesses to verify their supplier’s licenses and product certification documentation, inspect and record raw materials, etc.

Article 37 requires food businesses to inspect contract production facilities, document product for traceability purposes, etc.



|                                  |  |
|----------------------------------|--|
| <p><b>Primary Production</b></p> | <p>Article 35 of the <b>Food Safety Law</b> provides that:</p> <p><i>An edible agricultural produce producer shall, in accordance with the food safety standards and relevant provisions of the state, use pesticides, fertilizers, growth regulators, veterinary medicines, feeds, feed additives and other agricultural inputs. An enterprise or farmers' professional cooperative and economic organization engaging in the production of edible agricultural products shall establish a production record system for edible agricultural products.</i></p> <p>Article 33 of the <b>Agricultural Product Quality Safety Law</b> provides that:</p> <p><i>An agricultural product under any of the following circumstances shall not be sold:</i></p> <ul style="list-style-type: none"> <li><i>(1) It contains any pesticide, veterinary drug or other chemical substance prohibited by the state from being used;</i></li> <li><i>(2) The remnant of chemical substance such as pesticide and veterinary drug or the contained poisonous and harmful substance such as heavy metal, etc. does not comply with the agricultural product quality safety criteria;</i></li> <li><i>(3) The contained pathogenic parasites, microorganisms or biological toxin does not conform to the agricultural product quality safety criteria;</i></li> <li><i>(4) The material in use such as preservative, antiseptic or additive, etc. does not conform to the relative compulsory technical norms of the state; or</i></li> <li><i>(5) Other circumstances under which it does not conform to the agricultural product quality safety criteria.</i></li> </ul> |
| <p><b>Packinghouse</b></p>       | <p>See general requirements above.</p>   |
| <p><b>Handling</b></p>           | <p>In addition to the general food safety, product inspection, supplier licensing and traceability requirements, food businesses that store, handle and distribute food must operate inventory systems that ensure food safety (Articles 39, 40, 41).</p>  |
| <p><b>Transportation</b></p>     | <p>[no references found]</p>   |

**Traceability**

**Article 39** of the **Food Safety Law** provides that:

*An enterprise engaging in the business operation of food shall establish a check and inspection record system for the purchased food so as to faithfully record such contents as the name, specifications, quantity, production batch number, shelf-life of the food, name and contact information of the supplier, purchase date, etc.*

On Dec. 22, 2009, AQSIQ approved two national standards on food traceability to facilitate the implementation of these requirements by food businesses. [[http://english.aqsiq.gov.cn/NewsRelease/NewsUpdates/201001/t20100112\\_134734.htm](http://english.aqsiq.gov.cn/NewsRelease/NewsUpdates/201001/t20100112_134734.htm) ]:

- **General Specification for Food Traceability** – specifies the basic principles and requirements on food traceability, tracing procedures and management rules.
- **Food Information Coding and Identification** – stipulates the information coding, data structure and data carrier identification on food traceability.

Further standards are planned for publication in 2010, including:

- **Traceability Requirements for Agricultural Products - Fruits and Vegetables**
- **Guidelines on Design of Agricultural Product Traceability Information System**

In addition, the Article Numbering Center of China (ANCC), the Chinese member of GS1, has published **Guidelines on Tracking and Traceability of Fruits and Vegetables**, approved **China Barcode Promotion Program** and conducted national demonstration projects. [[www.ancc.org.cn/GS1ChinaEN/index.aspx](http://www.ancc.org.cn/GS1ChinaEN/index.aspx)]



|   |   |
|---|---|
| <b>Conformity Assessment/ Inspection</b>        | <p>The <b>Food Safety Law</b> sets out the expectations for food safety supervision and administration and allocates this to the local people's government at or above the county level.</p> <p>Article 76 requires an annual plan to be developed by the health, agriculture, quality supervision, industry/commerce, food and drug supervision and administrative departments at this level.</p> <p>Article 77 authorizes the responsible bodies to:</p> <ol style="list-style-type: none"> <li>1. <i>Conduct on-site inspections by entering the production and business operation sites;</i></li> <li>2. <i>Conduct sampling inspection on the food under production and business operation;</i></li> <li>3. <i>Consult and copy relevant contracts, instruments, account books and other relevant materials;</i></li> <li>4. <i>Seal up and detain the food that, as evidence shows, does not conform to the food safety standards, the food raw materials, food additives and food-related products for illegal use, as well as the utensils and equipment that are used for illegal production and business operation or that have been contaminated; and</i></li> <li>5. <i>Seal up the sites for the illegal production and business operation of food.</i></li> </ol> |
| <b>Sampling Programs for Pesticide Residues</b> | <p>Article 21 of the <b>Agricultural Product Quality Safety Law</b> requires MOA and the provincial agriculture departments to undertake random inspection of pesticides (and other inputs).</p> <p>Article 26 requires that:</p> <p><i>An enterprise engaging in agricultural production or a professional farmers' cooperative economic organization shall check the agricultural product quality safety either by itself or by entrusting a testing institution. It is prohibited to sell any agricultural product found from the test to fail to comply with the agricultural product quality safety criteria.</i></p>  |
| <b>Accreditation of Laboratories</b>            | <p>Laboratories are accredited by the China National Accreditation Service for Conformity Assessment (CNAS) in accordance with the <i>Regulations of the People's Republic of China</i> on Certification and Accreditation.<br/> <a href="http://eng.cnas.org.cn/extra/col1/1156832200.pdf">http://eng.cnas.org.cn/extra/col1/1156832200.pdf</a></p> <p>As of the end of March 2010, CNAS had accredited 3,958 laboratories and 186 inspection bodies. Only a portion, perhaps 10 percent, of these are active in the area of food safety.<br/> <a href="http://eng.cnas.org.cn/col678/col681/article.htm1?artid=4600">http://eng.cnas.org.cn/col678/col681/article.htm1?artid=4600</a></p> <p>China is a member of International Laboratory Accreditation Cooperation (ILAC) and a signatory to its Mutual Recognition Arrangement.</p>  |



## Public Sector Schemes

|                             |  |
|-----------------------------|--|
| <p><b>Name</b></p>          | <p><b>ChinaGAP</b></p> <p>ChinaGAP national standard GB/T20014-2005 was released on Dec. 31, 2005, and came into effect on May 1, 2006.</p> <p><a href="http://www.globalgap.org/cms/upload/Documents/temp_upload/TOUR2009/Presentations/20091015_KL_Introduction_to_ChinaGAP_Xiande_Liu.pdf">www.globalgap.org/cms/upload/Documents/temp_upload/TOUR2009/Presentations/20091015_KL_Introduction_to_ChinaGAP_Xiande_Liu.pdf</a></p>  |
| <p><b>Owner</b></p>         | <p>Certification and Accreditation Administration of the People’s Republic of China (CNCA)</p> <p><a href="http://www.cnca.gov.cn">www.cnca.gov.cn</a></p> <p>CNCA was established in 2001 by the State Council to provide unified management, supervision and overall coordination of certification and accreditation activities in China.</p> <p>Its activities include:</p> <ul style="list-style-type: none"> <li>• ChinaGAP certification;</li> <li>• China Safety Agro-Food Certification;</li> <li>• China Organic Product Certification;</li> <li>• China Food Quality Certification;</li> <li>• HACCP Certification;</li> <li>• GMP Certification;</li> <li>• Food Safety Management System Certification;</li> <li>• China Green Market Certification;</li> <li>• China Feed certification.</li> </ul> |
| <p><b>Participation</b></p> | <p>As of October 2009, there had been 659 certificates issued by the CNCA-licensed CBs, of which 341 were current.</p> <p><a href="http://www.globalgap.org/cms/upload/Documents/temp_upload/TOUR2009/Presentations/20091015_KL_Introduction_to_ChinaGAP_Xiande_Liu.pdf">www.globalgap.org/cms/upload/Documents/temp_upload/TOUR2009/Presentations/20091015_KL_Introduction_to_ChinaGAP_Xiande_Liu.pdf</a></p> <p>As of April 30, 2010, GlobalGAP reported for ChinaGAP:</p> <p>Option 1 (Individual) – 3 farms<br/>Option 2 (Group) – 0 farms</p> <p>[Note: This represents the number of farms certified in the accreditation audit of the single GlobalGAP-licensed CB.]</p>  |



| Program Scope                      |   |
|------------------------------------|---|
| <b>Commodities covered</b>         | Fresh fruits and vegetables. Other modules cover the livestock base (cattle, pigs, poultry and dairy), the aquaculture base (eels, flounder, tilapia, etc.) and under the crops base, tea and combinable crops.   |
| <b>HACCP, HACCP-based or other</b> | ChinaGAP is a HACCP-based program with modules covering fruits and vegetables and other commodities.  |
| <b>Other Attributes</b>            | Class 1 certification includes sustainable and environment protection, occupational health and animal welfare requirements in addition to food safety.  |
| Requirements                       |   |
| <b>Food Safety</b>                 | <p>The national standards for ChinaGAP include</p> <ul style="list-style-type: none"> <li>GB/T 20014.1 – 2005 good agricultural practice part 1 technical term</li> <li>GB/T 20014.2 good agricultural practice part 2 farm basic control points and appropriate regulation</li> <li>GB/T 20014.2 good agricultural practice part 3 farm crop basic control points and appropriate regulation</li> <li>GB/T 20014.2 good agricultural practice part 4 large farmlands crops basic control points and appropriate regulation</li> <li>GB/T 20014.2 good agricultural practice part 5 fruits and vegetables basic control points and appropriate regulation</li> <li>CNCA-N-004:2006 ChinaGAP general regulation</li> </ul> <p><a href="http://www.cqc.com.cn/english/ProductCertification/VoluntartProductCertificationRecommended/CertificationIntroduction/webinfo/2006/12/1260497023140718.htm">www.cqc.com.cn/english/ProductCertification/VoluntartProductCertificationRecommended/CertificationIntroduction/webinfo/2006/12/1260497023140718.htm</a></p> |
| <b>Traceability</b>                | Mandatory traceability requirements (see above)   |



|                                    |   |
|------------------------------------|---|
| <b>Conformity Assessment</b>       | <p>ChinaGAP has established two program levels:</p> <ul style="list-style-type: none"> <li>• Class 1 – implementation of food safety, sustainable and environment protection, occupational health and animal welfare requirements, as applicable. It is compatible with Global GAP.</li> <li>• Class 2 – implementation of food safety and environment protection requirements. This appears to be an entry-level option that involves the adoption of basic good agricultural practices (GAPs).</li> </ul> <p><a href="http://www.globalgap.org/cms/upload/Documents/temp_upload/TOUR2009/Presentations/20091015_KL_Introduction_to_ChinaGAP_Xiande_Liu.pdf">www.globalgap.org/cms/upload/Documents/temp_upload/TOUR2009/Presentations/20091015_KL_Introduction_to_ChinaGAP_Xiande_Liu.pdf</a></p>   |
| <b>Certification Bodies</b>        | <p>As of October 2009, for ChinaGAP, CNCA had:</p> <ul style="list-style-type: none"> <li>• Approved 15 certification bodies; and.</li> <li>• Registered 435 inspectors/auditors.</li> </ul> <p><a href="http://www.globalgap.org/cms/upload/Documents/temp_upload/TOUR2009/Presentations/20091015_KL_Introduction_to_ChinaGAP_Xiande_Liu.pdf">www.globalgap.org/cms/upload/Documents/temp_upload/TOUR2009/Presentations/20091015_KL_Introduction_to_ChinaGAP_Xiande_Liu.pdf</a></p> <p>As of April 19, 2010, GlobalGAP had recognized 5 Chinese certification bodies to provide certification to ChinaGAPs GlobalGAP-benchmarked program:</p> <p>WIT Assessment (China),<br/> CQC - China Quality Certification Centre,<br/> China Quality Mark Certification Group CO.LTD,<br/> Beijing Co-ops Integrity Certificate Centre,<br/> SGS-CSTC Standards Technical Services. Co. LTD</p> <p><a href="http://www2.globalgap.org/full_app_detail.html?ItemID=118">http://www2.globalgap.org/full_app_detail.html?ItemID=118</a></p> |
| <b>Recognition by Government</b>   | <p>ChinaGAP is owned by CNCA, the national body responsible for accreditation and certification activities. CNCA is an operating department of ASQIQ. The ChinaGAP program is, therefore, a government program.</p>   |
| <b>Private Sector Benchmarking</b> | <p>As of April 19, 2010, ChinaGAP had been granted provisional approval under modified audit checklist option of the GlobalGAP benchmarking scheme against GLOBALGAP (EUREPGAP) IFA version 3.0 / Crops / Fruit and Vegetables and Combinable Crops under the modified approved checklist option. This approval covers Option 1 (individual farms) and Option 2 (groups).</p> <p><a href="http://www2.globalgap.org/prov_app_detail.html?ItemID=118">[http://www2.globalgap.org/prov_app_detail.html?ItemID=118 ]</a></p> <p>The documents used were CHINAGAP Version 2008_CPCC:</p> <p>All Farm_GB/T20014.2<br/> Crop Base_GB/T20014.3<br/> Combinable Crops_GB/T20014.4<br/> Fruits and Vegetables_GB/T20014.5</p>  |



|                                    |  |
|------------------------------------|--|
| <b>Use of Marks/Labeling</b>       | Unknown  |
| <b>Name</b>                        | <b>Green Food</b><br>Launched in 1990.   |
| <b>Owner</b>                       | China Green Food Development Center<br><a href="http://www.greenfood.org.cn/sites/GREENFOOD/">www.greenfood.org.cn/sites/GREENFOOD/</a><br><br>The China Green Food Development Center was founded in 1992 and is a specialized agency responsible for national development and management of the Green Food program under the supervision of the Ministry of Agriculture (MOA).<br><br>Headquartered in Beijing, it has 42 provincial and municipal branch agencies, 38 quality inspection stations and 71 environmental monitoring branches nationwide.<br><br>The major functions of China Green Food Development Center include:<br><br><ol style="list-style-type: none"> <li>1) Generation of policy, regulation and strategic plan;</li> <li>2) Creation and implementation of standards;</li> <li>3) Authentication based on the standards;</li> <li>4) Quality control of Green Food program based on the Agricultural Product Quality Safety Law;</li> <li>5) Management of logo and trademark based on "Trademark Law of the People's Republic of China";</li> <li>6) Organizing various activities related to Green Food, such as research, demonstration, technical extension, training, education and international exchange and cooperation, etc.;</li> <li>7) Providing guidance to the provincial and municipal branches; and</li> <li>8) Coordinating the operation of quality inspection stations and environmental monitoring branches.</li> </ol> |
| <b>Participation</b>               | Not available  |
| <b>Program Scope</b>               |  |
| <b>Commodities covered</b>         | All agro-food products<br><br>Primary production and processing  |
| <b>HACCP, HACCP-based or other</b> | Not HACCP or HACCP-based   |

|                                    |  |
|------------------------------------|--|
| <b>Other Attributes</b>            | <p>The Green Food standard covers food safety, quality and nutrition within the context of the principles of sustainable development and by analyzing, monitoring and controlling the application of chemically synthesized fertilizers, pesticides, veterinary drugs, feed additives, etc.</p> <p>Fresh produce and processed products must be produced according to the green ecological environment standard set by the Ministry of Agriculture.</p> <p><a href="ftp://ftp.fao.org/docrep/fao/010/ai416e/ai416e00.pdf">ftp://ftp.fao.org/docrep/fao/010/ai416e/ai416e00.pdf</a></p> |
| <b>Requirements</b>                |  |
| <b>Food Safety</b>                 | <p>The Green Food program includes:</p> <ul style="list-style-type: none"> <li>• Production process criteria - green food operating procedures covering the full supply chain (farm-to-table approach);</li> <li>• Product criteria - green food hygiene standards;</li> <li>• Storage and shipping criteria - national standards for external packing and labeling and special Green Food packing, labeling, etc. requirements; and</li> <li>• Recommendations for the use of fertilizers, pesticides, food additives, soil quality, etc.</li> </ul>                                  |
| <b>Traceability</b>                | Regulatory requirements (see above)  |
| <b>Conformity Assessment</b>       | <p>There are two different labels for Green Food products:</p> <ul style="list-style-type: none"> <li>• Green Food "AA" - deemed to be equivalent to items produced under international organic standards, although these products are not certified as organic.</li> <li>• Green Food "A" - identified as grown with fewer chemical inputs.</li> </ul>  |
| <b>Certification Bodies</b>        | Certification is undertaken by the provincial and municipal branches of the China Green Food Development Center.   |
| <b>Recognition by Government</b>   | <p>Yes.</p> <p>Green Food is a program of the Ministry of Agriculture.</p>   |
| <b>Private Sector Benchmarking</b> | No   |
| <b>Use of Marks/Labeling</b>       | Yes. Labels on products sold to consumers.   |



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| <b>Name</b>                        | <b>China Safe Agro-Food Certification</b><br><a href="ftp://ftp.fao.org/docrep/fao/010/ai416e/ai416e00.pdf">ftp://ftp.fao.org/docrep/fao/010/ai416e/ai416e00.pdf</a>   |
| <b>Owner</b>                       | The Safe Agro-Food scheme is managed and monitored by the Centre for Agro-Food Quality & Safety (CAQS) under the Ministry of Agriculture.  |
| <b>Participation</b>               | According to a report of the Food and Agriculture Organization's rapid appraisal project, in March 2007, approximately 17 percent of the cultivated farmland in China, 25 percent of the agricultural facilities and 30 percent of agricultural products produced in China were then certified according to the Safe Agro-Food scheme.   |
| <b>Program Scope</b>               |  |
| <b>Commodities covered</b>         | Primary edible agri-food products - including fresh produce<br><br>The scheme covers the full supply chain.  |
| <b>HACCP, HACCP-based or other</b> | No<br><br>The principles of Safe Agro-Food are based on standardized production, input supervision, critical control points, safety guarantee and label management.  |
| <b>Other Attributes</b>            | Environment (see below)  |
| <b>Requirements</b>                |  |
| <b>Food Safety</b>                 | Meet the government requirements of general agricultural products and food for basic safety and public consumption (see above).<br><br>Certification of agricultural facilities covers three main areas: <ul style="list-style-type: none"> <li>• Environmental impact of the production (including pollution coming from the use of pesticides, fertilizers, heavy metals, etc.)</li> <li>• Production facilities (physical facilities, program for the use of fertilizers, pesticides, etc.)</li> <li>• Record-keeping system (including the use of pesticides, fertilizers, seeds, water, drugs, etc.)</li> </ul> |
| <b>Traceability</b>                | Regulatory requirements (see above)  |

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| <b>Conformity Assessment</b>       | The Safe Agro-Food scheme is managed and monitored by the Centre for Agro-Food Quality & Safety (CAQS) under the Ministry of Agriculture. |
| <b>Certification Bodies</b>        | Certification is provided free by CAQS to farmers. All costs for inspection and certification are borne by the Ministry of Agriculture.   |
| <b>Recognition by Government</b>   | Yes. The scheme was developed and is administered by the Ministry of Agriculture.   |
| <b>Private Sector Benchmarking</b> | No  |
| <b>Use of Marks/Labeling</b>       | Yes.  |

#### International Food Safety Programs

|                             |  |
|-----------------------------|--|
| <b>Name</b>                 | <b>GlobalGAP</b><br><a href="http://www.globalgap.org">www.globalgap.org</a>   |
| <b>Program Scope</b>        | GlobalGAP is an integrated farm assurance scheme. It covers a wide range of products and has a specific module for fruits and vegetables that covers primary production and primary packing.<br><br><a href="http://www.globalgap.org/cms/front_content.php?idart=147&amp;idcat=48&amp;lang=1&amp;client=1">www.globalgap.org/cms/front_content.php?idart=147&amp;idcat=48&amp;lang=1&amp;client=1</a>   |
| <b>Participation</b>        | As of April 30, 2010, GlobalGAP reported:<br><br>Option 1 (Individual) – 270 farms<br>Option 2 (Group) – 45 farms  |
| <b>Certification Bodies</b> | As of April 19, 2010, GlobalGAP had licensed 12 certification bodies for China. All were subsidiaries or branches of foreign certification bodies:<br><br>BCS China [BCS Öko-Garantie GmbH] <a href="http://www.bcs-oeko.com">www.bcs-oeko.com</a> ;<br>Bureau Veritas Certification, China [Bureau Veritas Certification S.A.U. (Spain)] <a href="http://www.bureauveritas.cn">www.bureauveritas.cn</a> ;<br>CERES-China CERES - Certification of Environmental Standards GmbH] <a href="http://www.ceres-cert.com">www.ceres-cert.com</a> ;<br>Control Union / Peterson China [Control Union Certifications B.V.] <a href="http://www.skalint.com">www.skalint.com</a> ;<br>ECOCERT China [ECOCERT SA] <a href="http://www.ecocert.cn">www.ecocert.cn</a> ;<br>EUROCERT S.A. CHINA [EUROCERT European Inspection and Certification] <a href="http://www.eurocert.gr">www.eurocert.gr</a> ; |

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| <b>Certification Bodies</b>      | MO China [IMO - Institute for Marketecology] <a href="http://www.imo.ch">www.imo.ch</a> ;<br>Intertek Greater China [Intertek Food Services GmbH] <a href="http://www.intertek.com">www.intertek.com</a> ;<br>MOODY INTERNATIONAL CHINA (Shanghai) [Moody International Certification Ltd] <a href="http://www.moodyint.com">www.moodyint.com</a> ;<br>MOODY INTERNATIONAL CHINA (Qingdao) [Moody International Certification Ltd] <a href="http://www.moodyint.com">www.moodyint.com</a> ;<br>National Britannia Certification Ltd - China [National Britannia Certification Ltd] Site Under Construction: <a href="http://www.nbcert.com">www.nbcert.com</a> ;<br>SGS China [SGS Systems and Services Certification] <a href="http://www.sgs.com">www.sgs.com</a> |
| <b>Recognition by Government</b> | No. The Government of China recognizes ChinaGAP.  |
|                                  |   |
| <b>Name</b>                      | <b>BRC Global Standard for Food Safety</b><br><a href="http://www.brcglobalstandards.com">www.brcglobalstandards.com</a>  |
| <b>Program Scope</b>             | The Global Standard for Food Safety is a HACCP scheme for food manufacturers.<br><br>The Guideline for Category 5 Fresh Produce provides guidance on interpreting the requirements of the standard for fresh produce packers falling into Product Category 5: fruit, vegetables and nuts.   |
| <b>Participation</b>             | As of April 30, 2010, the BRC reported certification of 15 produce packers/processors in China.   |
| <b>Certification Bodies</b>      | The BRC has licensed 3 certification bodies to operate in China:<br><br>Moody International Certification (China);<br>National Britannia Certification Ltd - China;<br>SGS-CSTC STANDARDS TECHNICAL SERVICES CO., LTD. China  |
| <b>Recognition by Government</b> | No  |

## FRESH PRODUCE TRADE WITH U.S.

## U.S. Imports

Mexico's exports of fresh vegetables and fruits to U.S.

Value (2009) \$5,045.9 million

Source: U.S. Department of Commerce

## Legislation

## Food Safety

Mexico's food laws are set out within a legal framework that starts with its Constitution, which empowers the President and Congress to promulgate laws, regulations and standards.

The regulatory process is based on its "Federal Law of Metrology and Standardization" (Ley Federal sobre Metrología y Normalización. DOF-30-04-2009). This law provides for two types of regulations – mandatory *Normas Oficiales Mexicanas* (NOMs) and voluntary *Normas Mexicanas* (NMX).

Mexico's National Standards Office (DGN) of the Secretariat of Economy (SE) coordinates the regulatory process. Other Mexican federal agencies, however, may promulgate regulations within their jurisdictions, but they must work through SE. The other agencies involved in promulgating standards that affect agricultural products include the:

- Secretariat of Agriculture, Livestock, Rural Development, Livestock, Fishery and Food (SAGARPA);
- Secretariat of Natural Resources and Environment (SEMARNAT); and Secretariat of Health.

**General Health Act** (Ley General de Salud. DOF-30-12-2009) – authorizes the federal Health Ministry to empower the Comisión Federal para la Protección Contra Riesgos Sanitarios (Federal Commission for Protection Against Health Risks - COFEPRIS) to:

- Identify and assess risks to human health;
- Establish national policies relating to protection against health risks and their implementation in food, plant nutrients, pesticides, toxic substances, biotechnology products, food supplements and additives involved in the development of previous products.

[www.diputados.gob.mx/LeyesBiblio/pdf/142.pdf](http://www.diputados.gob.mx/LeyesBiblio/pdf/142.pdf)

**Plant Protection Law** (Ley Federal de Sanidad Vegetal. DOF-18-11-2008) - authorizes the Ministry of Agriculture to regulate and promote plant health, as well as implementation, verification and certification of systems to reduce risks of physical, chemical and microbiological contamination in primary production of fruits, vegetables and other crops.

[http://info4.juridicas.unam.mx/ijure/fed/139/default.htm?&](http://info4.juridicas.unam.mx/ijure/fed/139/default.htm?)



## Legislation

## Food Safety (continued)

**Food Standards and Technical Regulations** – published by the Ministry of Health as Mexican Official Standards including specifications for the sanitary safety of all foods for human use. They include:

- a) Regulation of the Federal Commission for Protection Against Health Risks
- b) Regulation of the General Health Law on Sanitary Control of Activities of Establishments, Products and Services;
- c) Internal Regulations of the Ministry of Health;
- d) Regulation of the General Health Law on advertising;
- e) Market Regulation;
- f) Regulation of Sanitary Control of Products and Services;
- g) Regulation on registration, import and export authorizations; and,
- h) Export Certificates for Pesticide and Vegetable Nutrient Substances and Toxic or Hazardous Materials

[www.cofepris.gob.mx](http://www.cofepris.gob.mx)

## Plant Protection Products

Pesticide registration is done in collaboration with SAGARPA and the Ministry of Environment and Natural Resources (SEMARNAT).

With respect to fresh produce, the Federal Plant Protection Act authorizes the **National Health, Food Safety and Agri-Food Quality Service** (Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria - SENASICA) to verify and inspect the implementation of laws regarding plant health and reduce risks of contamination of primary products by checking sites that manufacture, formulate, store, market and use pesticides. This program is based on several standards: NOM-033-FITO-1995, NOM-034-FITO-1995 and NOM-052-FITO-1995.

## Export

Article 27 of the Plant Health Law authorizes the SAGARPA to issue phytosanitary certificates and to establish procedures for exports based on the relevant Mexican laws and the requirements of importing countries.

SAGARPA has established export programs for specific commodities to provide for this certification (e.g. Mango Export Program – 2010 [www.senasica.gob.mx/?id=893](http://www.senasica.gob.mx/?id=893))

**Competent Authorities**

In Mexico two main agencies are responsible for both fresh food safety and processed food products:

**Health Secretariat or Ministry** (Secretaría de Salud) exercises its powers with respect to food, plant nutrients, pesticides, toxic substances, biotechnology products, food supplements and additives through the Federal Commission for Protection Against Health Risks (**COFEPRIS**).

[www.cofepris.gob.mx](http://www.cofepris.gob.mx)

**Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food** (Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación - SAGARPA) acts primarily through SENASICA.

**SENASICA's** mandate with respect to fruits and vegetables is set out in sections 7 and 7A of the Plant Protection Law and includes, inter alia:

- Implementing and monitoring compliance with Mexican Official Standards and other applicable laws, and performing acts of authority;
- Promoting and enabling the implementation of systems to reduce risks of contamination in primary production of fruits and vegetables and promoting and guiding research;
- Recognizing and certifying systems to reduce risks of contamination in primary production;
- Promoting international harmonization and equivalence;
- Concluding agreements for effective coordination of actions with the governments of the states and subsidiary bodies;
- Concluding agreements for coordination with other federal authorities, to perform supervisory and regulatory activities;
- Issuing official Mexican standards and other applicable laws related to means of reducing risks of contamination in primary production of fruits and vegetables;
- Issuing technical documents that form the basis for the implementation of Good Agricultural Practices and Management;
- Organizing and operating the certification, inspection and monitoring processes of primary production, where GAPs are applied;
- Recognizing authorized third-party professionals that will assist in the implementation and enforcement of the BPAs;
- Providing the competent authority to grant registration, and information on residue levels obtained from field studies that contribute to the establishment of maximum residue limits of pesticides; and,
- Issuing regulations concerning systems to minimize risks of contamination in the primary production.

**Competent Authorities (continued)**

As a policy in this area, the *Sectoral Program of Agricultural Development and Fisheries 2007-2012*, Strategy includes the following:

2.2 Protect the country from pests and diseases and improve the health status through specific lines of action:

- Avoiding the introduction of pests and diseases through programs of inspection and control of national goods and imported goods;
- Preventing the spread of pests and diseases in the country through programs and services for monitoring;
- Preserving and improving sanitary conditions in agricultural regions through programs and services for diagnosis, prevention, control and eradication of pests and diseases and the promotion of new technologies; and,
- Certification or recognition of national systems to reduce risk of contamination.

[www.senasica.gob.mx](http://www.senasica.gob.mx)

**Mandatory Food Safety Requirements****General Food Safety Requirements**

The **General Health Law** (Ley General de Salud) sets out the basic provisions related to food safety, pesticides and other matters in the following articles of Chapter XII:

Article 194 gives the Health Ministry powers with respect to "the exercise of control" over:

- I. Process, import and export of food, soft drinks, alcoholic beverages, perfumery, beauty and grooming, snuff and raw materials and, where appropriate, additives involved in its preparation;*
- III. Process, use, import, export, application and disposal of pesticides, plant nutrients and substances toxic or hazardous to health, as well as raw materials involved in its preparation.*

Article 205 stipulates that the processing of food and other products "shall take place under hygienic conditions, without contamination or adulteration, and in accordance with provisions of this and other applicable Acts."

Article 206 states that a product is considered adulterated if its "nature and composition" does not correspond with the label or if it has been treated to disguise or conceal "defects in its process or in the sanitary quality of raw materials used."

Article 207 states that a product or a raw material is considered contaminated if it contains "microorganisms, hormones, bacteriostatic substances, pesticides, radioactive particles, foreign matter, and any other substance in quantities exceeding the permissible limits established by the Ministry of Health."

Article 208 states that a product or raw material is considered altered if it has been modified to change its "intrinsic composition to:

- I. Reduce their nutritional or therapeutic value;
- II. Become a health hazard or
- III. Change their characteristics, provided that they have an impact on the sanitary quality."



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|---------------------------|--|
| <b>Primary Production</b> | <p>The Plant Protection Law (Ley Federal de Sanidad Vegetal) sets out requirements for primary production.</p> <p><a href="http://www.cddhcu.gob.mx/LeyesBiblio/doc/117.doc">www.cddhcu.gob.mx/LeyesBiblio/doc/117.doc</a></p> <p>For example, it defines both Buenas Prácticas Agrícolas (BPAs or GAPs) and GAPs' Audits</p> <p>Good Agricultural Practices (GAPs): A set of minimum sanitary measures that are performed at the site of primary production of plants, to ensure minimizing the possibility of physical ,chemical and microbiological contamination of a plant or fresh product;</p> <p>GAPs' Audit: A procedure in which the Secretariat, or a certification body, determines that an agricultural production process complies with the regulations in this area.</p> <p>Article 47-C sets out SENASICA's authority to audit farms and other primary production facilities:</p> <p><i>The plants and the places or establishments and facilities related to primary production may be subject, at any time, to reviews, audits, verification and certification of compliance with BPAs to establish the official Mexican standards and other applicable laws in the matter or the authorities of other countries, in the case of export products.</i></p> <p><i>These assessments or audits may be conducted at the initiative of the Secretariat or at the request of a party.</i></p> <p><i>The assessments, inspections, audits and certifications can be handled by the Secretariat directly or through verification units, authorized third parties, certification bodies and testing laboratories, and the result shall be recorded in a report, opinion or certificate, as appropriate.</i></p> |
| <b>Packinghouse</b>       | <p>Article 47-C (see above) sets out SENASICA's authority to audit other primary production facilities. And Article 47-E states that:</p> <p><i>Only individuals whose primary production process plant has a certificate of compliance with BPAs may bear the hallmark of system of contamination risk reduction emitted by the Secretariat.</i></p> <p>These Articles do not specifically mention "best management practices" (BPMs, or "buenas prácticas de manejo") associated with packinghouses and storage facilities. However, the protocol for each BPA program includes BPMs.</p>  |

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|---|--|
| <b>Handling</b>                                 | See above  |
| <b>Transportation</b>                           | See above  |
| <b>Traceability</b>                             | The Plant Health Law does not specifically mandate traceability for fresh produce products. The BPA requires traceability (see below).   |
| <b>Conformity Assessment /Inspection</b>        | <p>Article 5 of the Plant Protection Law (Ley Federal de Sanidad Vegetal) defines:</p> <p><i>Certificate of Completion of BPAs: A document issued by the Secretariat, following the validation of an opinion issued by accredited persons and approved for that purpose, at the request of the interested parties or by determination of the Secretariat, by which it is shown that BPA systems have been applied in units of primary plant production.</i></p>  |
| <b>Sampling Programs for Pesticide Residues</b> | <p>A special Pesticide Monitoring Program for farms certified to BPAs was established by SENASICA in 2007. It involves sampling production units by product and by state.</p> <p><a href="http://www.senasica.gob.mx/?id=1030">www.senasica.gob.mx/?id=1030</a></p>  |
| <b>Certification of Laboratories</b>            | <p>COFEPRIS utilizes a network of more than 100 authorized third-party organizations across Mexico's 25 states to increase its capacity in monitoring and surveillance for food safety and other health-related activities. To be an authorized third party, the applicant must demonstrate that it has the competence and capacity (technical, material, human, financial and infrastructure) in its field and be accredited to NMX-EC-17025-IMNC-2000.</p> <p><a href="http://www.cofepris.gob.mx/work/sites/cfp/resources/LocalContent/846/1/tercerosautorizados.pdf">www.cofepris.gob.mx/work/sites/cfp/resources/LocalContent/846/1/tercerosautorizados.pdf</a></p> |
| <b>Certification of Exports</b>                 | Chapter XIII of the General Health Act sets out the Health Ministry's powers vis-à-vis imports and exports of food, pesticides and other products covered by the legislation and provides for permits, inspection, testing, etc.   |

| Public Sector Schemes              |  |
|------------------------------------|--|
| <b>Name</b>                        | <p><b>Programa de buenas practicas agrícolas (BPA) y de empaque (BPM)</b><br/>(Program of good agricultural practices and packaging)</p> <p><a href="http://www.buenaspracticas.cl/index.php?option=com_content&amp;task=view&amp;id=45&amp;Itemid=120">www.buenaspracticas.cl/index.php?option=com_content&amp;task=view&amp;id=45&amp;Itemid=120</a></p>   |
| <b>Owner</b>                       | <p>SENASICA.</p> <p>Its Directorate General of food safety, aquaculture and fisheries (DGIAAP) is mandated to establish schemes related to:</p> <ul style="list-style-type: none"> <li>• Reducing risks related to contamination (SRRC);</li> <li>• Ensuring the safety of primary food production and primary processing; and,</li> <li>• Facilitating the implementation of standards required by national and international buyers and improving market access and compliance with safety standards demanded by importing countries.</li> </ul> |
| <b>Participation</b>               | <p>DGIAAP-recognized farms with BPA implementation or primary packers with BMP implementation:</p> <p>In 2006: 220 (158 farms, 62 packers)<br/>In 2007: 381 (282 farms, 99 packers)<br/>In 2008: 740 (607 farms, 133 packers)</p> <p>Source: <i>Evaluación del Programa de Buenas Prácticas Agrícolas (2009)</i></p> <p><a href="http://www.senasica.gob.mx/?doc=8901">www.senasica.gob.mx/?doc=8901</a></p>   |
| <b>Program Scope</b>               | Food Safety – reduction of physical, chemical and microbiological contamination - for primary production, storage and primary packing  |
| <b>Commodities covered</b>         | Covers fresh fruits and vegetables. In 2007, there were 38 crops included in the certification. In 2008, there were 71 crops. For the list, see annex A.   |
| <b>HACCP, HACCP-based or other</b> | No.  |
| <b>Other Attributes</b>            | The program is designed to accommodate organic production.   |



## Requirements

## Food Safety

The programs cover good practices for production, storage and packing of fresh fruits and vegetables. The primary documents are:

- Lineamientos Generales para la Operación y Certificación de Sistemas de Reducción de Riesgos de Contaminación en la Producción Primaria de Alimentos de Origen Agrícola (April 6, 2010) [General Guidelines for the Operation and Certification of Contamination Risk Reduction Systems in Primary Production of food of agricultural origin]
- Manual de Procedimientos que establece los criterios y requisitos que aplicara la DGIAAP para el reconocimiento de personas físicas y morales como terceros autorizados en materias relacionadas con los Sistemas de Reducción de Riesgos de Contaminación de alimentos de origen agropecuario y pesquero así como plaguicidas de uso agrícola (April 6, 2010) [Procedures Manual - criteria and requirements for DGIAAP recognition of individuals and corporations as authorized third parties in matters relating to Contamination Risk Reduction Systems for foods and agricultural pesticides]
- Procedimiento para la Auditoria de Sistemas de Reducción de Riesgos de Contaminación en la Producción Primaria (April 6, 2010) [Procedures for the audit of Contamination Risk Reduction Systems in Primary Production]
- Procedimiento para la Evaluación y Verificación de los Sistemas de Reducción de Riesgos de Contaminación en la Producción Primaria (April 6, 2010) [Procedures for the Evaluation and Verification of Contamination Risk Reduction Systems in Primary Production]
- Requisitos Generales para el Reconocimiento de Áreas con Aplicación de Buen Uso y Manejo de Agroquímicos en la Producción Primaria de Vegetales (April 6, 2010) [General Requirements for the Recognition of Areas Using Good Practices and Handling of Agricultural Chemicals in the Primary Production of Vegetables]
- Requisitos Generales para la Certificación de Sistemas de Reducción de Riesgos de Contaminación bajo la Modalidad de Áreas Naturales y Áreas Integrales (April 6, 2010) [General Requirements for Certification of Contamination Risk Reduction Systems in Natural and Integral areas]
- Requisitos Generales para Reconocimiento de Sistemas de Reducción de Riesgos de Contaminación en la Producción Primaria de Alimentos de Origen Agrícola (April 6, 2010) [General Requirements for the Recognition of Contamination Risk Reduction Systems in the Primary Production of Food of Agricultural Origin]

[www.senasica.gob.mx/?doc=161](http://www.senasica.gob.mx/?doc=161)



|                                       |   |
|---------------------------------------|---|
| <p><b>Food Safety (continued)</b></p> | <p>There are also generic guides and protocols for specific crops including: avocado (July 31, 2006) and green onions, chili peppers, strawberries, lettuce, mangoes and walnuts (Dec. 11, 2007).</p> <p><a href="http://www.senasica.gob.mx/?doc=345">www.senasica.gob.mx/?doc=345</a></p> <p>The following list of requirements is drawn from the strawberry program (Protocolo para la Implantación Voluntaria de las Buenas Prácticas Agrícolas y Buenas Prácticas de Manejo en los Procesos de Producción, Cosecha y Empacado de Fresa [Fragaria sp] para Consumo en Fresco, December 2007):</p> <ol style="list-style-type: none"> <li>I. Objective</li> <li>II. General</li> <li>III. Water (sources, irrigation, etc.)</li> <li>IV. Production units (land history, preparation, fertilizer, pesticides, field sanitation, field packing, etc.)</li> <li>V. Packaging Unit (premises, pest control, hygiene, storage, etc.)</li> <li>VI. Finished Goods Transportation</li> <li>VII. Labeling</li> <li>VIII. Personnel Hygiene</li> <li>IX. Training</li> <li>X. Documentation and Records</li> <li>XI. Traceability System</li> <li>XII. Audit of BPA and BPM</li> <li>XIII. Recognition of the application of BPA and BPM</li> </ol> <p>The protocols also reference a series of NOM standards covering water and pesticides:</p> <ul style="list-style-type: none"> <li>• NOM-003-CNA-1996 "Requisitos durante la construcción de pozos de extracción de agua para evitar la contaminación de acuíferos"</li> <li>• NOM-004-CNA-1996 "Requisitos para la protección de acuíferos durante el mantenimiento y rehabilitación de pozos de extracción de pozos y para el cierre de pozos en general"</li> <li>• NOM-012-SSA1-1993 "Requisitos sanitarios que deben cumplir los sistemas de abastecimiento de agua para uso y consumo humano públicos y privados"</li> <li>• NOM-127-SSA1-1994 "Salud ambiental, agua para uso y consumo humano - Límites permisibles de calidad y tratamientos a que debe someterse el agua para su potabilización"</li> <li>• NOM-026-STPS-1994 "Colores y señales de seguridad e higiene, e identificación de riesgos por fluidos conducidos en tuberías"</li> <li>• NOM-003-STPS-1999 Actividades agrícolas- uso de insumos fitosanitarios o plaguicidas e insumos de nutrición vegetal o fertilizantes - condiciones de seguridad e higiene".</li> </ul> |
| <p><b>Traceability</b></p>            | <p>BPA/BPM programs require farms and packers to maintain the identity of the product from the field to the store, which must include information on the production unit, product, batch, cutting process date, date of packaging, unit, and number of boxes of each batch.</p>   |



|                                    |  |
|------------------------------------|--|
| <b>Conformity Assessment</b>       | <p>Article 47-C of the Plant Protection Law sets out SENASICA's authority:</p> <p><i>... The assessments, inspections, audits and certifications can be handled by the Secretariat directly or through verification units, authorized third parties, certification bodies and testing laboratories, and the result shall be recorded in a report, opinion or certificate, as appropriate.</i></p> <p>Applicants for certification must:</p> <ul style="list-style-type: none"> <li>• Implement the program</li> <li>• Apply to DGIAAP and submit initial information</li> <li>• Be audited by a third party approved by DGIAAP</li> <li>• Complete any corrective actions within 45 days of the audit</li> </ul> <p>DGIAAP issues certificates following a review of all documentation:</p> <p>Perennial crops – 2-year certification, requires annual internal and external audits with reports submitted to DGIAAP<br/>Annual crops – 1-year certification</p> <p><a href="http://www.senasica.gob.mx/?id=712">http://www.senasica.gob.mx/?id=712</a></p> <p>As of April 30, 2010, DGIAAP has recognized 20 third-party auditors in eight (8) states.</p> <p><a href="http://www.senasica.gob.mx/?id=709">http://www.senasica.gob.mx/?id=709</a></p> |
| <b>Certification Bodies</b>        | DGIAAP issues the certificates   |
| <b>Recognition by Government</b>   | The BPA/BPM program is owned and administered by the Mexican government (SENASICA and DGIAAP).   |
| <b>Private Sector Benchmarking</b> | No   |

|                              |  |
|------------------------------|--|
| <b>Use of Marks/Labeling</b> | No (see México Calidad Suprema below)  |
|                              |  |
| <b>Name</b>                  | <p><b>México Calidad Suprema</b></p> <p>Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx">www.mexicocalidadsuprema.com.mx</a><br/>         Blog: <a href="http://msqinfo.wordpress.com">http://msqinfo.wordpress.com</a></p>   |
| <b>Owner</b>                 | <p>Federal Government. The generic brand is registered in the Mexican Institute for Intellectual Property (IMPI) and owned by the Federal Government through the Department of Economics, SAGARPA and BANCOMEXT.</p> <p>MCS is a nonprofit civil partnership made up of growers, packers and their organizations. It was established in February 2003 to assist the Federal Government in developing and strengthening the competitiveness of the Mexican countryside through outreach, training, consulting, certification and national and international promotion of the Brand "Mexico Supreme Quality." (MCS)."</p> <p>Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx/nosotros.php#">www.mexicocalidadsuprema.com.mx/nosotros.php#</a></p>   |
| <b>Participation</b>         | <p>MCS, as of March 2009, reported 94 packers either certified or in the process of being certified to México Calidad Suprema in fruits or vegetables.</p> <p>Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Directorio-de-Productores-(Marzo-09).pdf">www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Directorio-de-Productores-(Marzo-09).pdf</a></p> <p>The number of participating farms (suppliers) is unknown. MCS's blog reported, as of March 25, 2010, that "[m]ore than 350 Mexico grower operations were served by MCS" and that "over 290 are already fully certified."<br/> <a href="http://msqinfo.wordpress.com">http://msqinfo.wordpress.com</a></p> <p>MCS's blog also lists those producers who export to the U.S. or Canada:<br/> <a href="http://msqinfo.wordpress.com/products-producers/">http://msqinfo.wordpress.com/products-producers/</a></p> |
| <b>Program Scope</b>         |  |
| <b>Commodities covered</b>   | <p>MCS covers</p> <ul style="list-style-type: none"> <li>• Fresh and fresh-cut fruits and vegetables</li> <li>• Meats (beef, pork)</li> <li>• Milk</li> <li>• Beverages (mezcal, tequila, wine)</li> <li>• Honey</li> <li>• Flowers</li> <li>• Coffee</li> <li>• Vanilla</li> </ul> <p>For fresh and fresh-cut produce the program covers the supply chain: primary production, packing and, where applicable, fresh-cut processing.</p>   |

|   |  |
|---|--|
| <p><b>HACCP, HACCP-based or other</b></p> | <p>The brand/program aims to differentiate certified products in the market. Each specification covers:</p> <ul style="list-style-type: none"> <li>• Health;</li> <li>• Safety;</li> <li>• Quality attributes (color, flavor, appearance, texture, etc.);</li> <li>• Product traceability; and</li> <li>• Management (e.g. record-keeping, etc.).</li> </ul> <p>It does not appear to be HACCP or HACCP-based.</p>   |
| <p><b>Other Attributes</b></p>            | <p>Product quality specifications. A list of these can be found at: Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Pliegos-de-Condiciones.pdf">www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Pliegos-de-Condiciones.pdf</a></p> <p>Some examples of MCS specification documentation can be found at: <a href="http://www.normich.com.mx/mcs.html">www.normich.com.mx/mcs.html</a></p>  |
| <p><b>Requirements</b></p>                |  |
| <p><b>Food Safety</b></p>                 | <p>Certified products must meet Mexican legal requirements (see above) and, if for the export market, any requirements of the importing country.</p> <p>Primary producers must be in compliance with SENASICA's BPA requirements for the commodity (see above).</p> <p>Packers must be in compliance with SENASICA's BPM requirements</p> <p>Fresh-cut processors must have HACCP in place.</p>  |
| <p><b>Traceability</b></p>                | <p>MCS requires conformity with BPA/BPM traceability requirements - i.e. farms and packers to maintain the identity of the product from the field to the store, which must include information on the production unit, product, batch, cutting process date, date of packaging, unit, and number of boxes of each batch.</p>   |
| <p><b>Conformity Assessment</b></p>       | <p>Conformity assessment occurs on two levels.</p> <p>Product: The packer must operate an internal quality control system that ensures products meet the MCS specifications. The certification body must audit this system and verify it. Mexican and international (ISO) sampling standards are referenced in the MCS specifications. <a href="http://www.normich.com.mx/archivos/OC/mcs/PLIEGOS DE CONDICIONES 12/PC_020_2005_Tomate.pdf">www.normich.com.mx/archivos/OC/mcs/PLIEGOS DE CONDICIONES 12/PC_020_2005_Tomate.pdf</a></p> <p>System Audit: The certification body also audits the full set of requirements (health, food safety, quality, traceability, etc.) for the primary production unit, packing facility and processing facility (as required). Certificates are valid for 2 years. Unannounced audits can occur.</p> |

|                                    |  |
|------------------------------------|--|
| <b>Certification Bodies</b>        | <p>La Entidad Mexicana de Acreditación, a.c. (EMA) is the Mexican national accreditation body for testing laboratories, calibration laboratories, clinical laboratories, inspection bodies and certification bodies. It is a member of IAF and follows ISO/IEC 17011:2004.</p> <p>EMA accredits certification bodies to audit and certify to the individual scopes of the commodity-specific MCS standards (e.g. tomatoes, peppers, etc.).</p> <p>EMA's registry can be found at:<br/> <a href="http://200.57.73.228:75/NuevoOC/Principal.aspx">http://200.57.73.228:75/NuevoOC/Principal.aspx</a></p> |
| <b>Recognition by Government</b>   | Yes. Owned by government   |
| <b>Private Sector Benchmarking</b> | <p>MCS program is not benchmarked.</p> <p>MCS is recognized by some buyers:</p> <p style="padding-left: 40px;">In Mexico by Wal-Mart (México), Comercial Mexicana, Chedraui, Costco, and perhaps others.<br/> In the U.S. by Wal-Mart USA, Kroger, HEB and perhaps others<br/> In Canada by Loblaw</p> <p>Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx">www.mexicocalidadsuprema.com.mx</a></p>  |
| <b>Use of Marks/Labeling</b>       | The México Calidad Suprema™ label can be used on products, advertising materials, vehicles, etc.   |
| <b>Private Sector Schemes</b>      |  |
| <b>Name</b>                        | <p><b>MexicoGAP</b></p> <p>Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx/gap/index.php">www.mexicocalidadsuprema.com.mx/gap/index.php</a></p>   |
| <b>Owner</b>                       | <p>México Calidad Suprema, A.C. (MCS)</p> <p>MCS is a nonprofit civil partnership made up of growers, packers and their organizations. It was established in February 2003 to assist the Federal Government in developing and strengthening the competitiveness of the Mexican countryside through outreach, training, consulting, certification and national and international promotion of the Brand "Mexico Supreme Quality."</p>   |
| <b>Participation</b>               | <p>Estimates vary as to the number of farms certified:</p> <p>MCS, as of March 2009, reported 49 farms either certified or in the process of being certified to MexicoGAP in fruits or vegetables.<br/> Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Directorio-de-Productores-(Marzo-09).pdf">www.mexicocalidadsuprema.com.mx/documentos/capacitacion/Directorio-de-Productores-(Marzo-09).pdf</a></p> <p>GlobalGAP, as of May 2010, reported 24 farms certified to MexicoGAP in its database.</p>  |

| Program Scope                      |   |
|------------------------------------|---|
| <b>Commodities covered</b>         | MexicoGAP currently covers only fresh fruits and vegetables.  |
| <b>HACCP, HACCP-based or other</b> | HACCP-based (follows the GlobalGAP documentation approach)  |
| <b>Other Attributes</b>            | MexicoGAP includes environmental protection GAPs, occupational health and safety criteria on farms and awareness and responsibility regarding socially-related issues.  |
| Requirements                       |   |
| <b>Food Safety</b>                 | <p>MexicoGAP documents include:</p> <p><i>Puntos de Control y Criterios de Cumplimiento Aseguramiento Integrado de Ranchos - Todo tipo</i> (Versión: 2.0_Mar08) [Integrated Farm Assurance - Control Points and Compliance Criteria]<br/>           Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC_TODOS-TIPO-EXPLORACION.pdf">www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC_TODOS-TIPO-EXPLORACION.pdf</a></p> <p><i>Lista de Verificación Aseguramiento Integrado de Ranchos - Todo tipo</i> (Versión: 2.0_Mar08) [Integrated Farm Assurance ]<br/>           Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx/documentos/gap/LV_TODO-TIPO-EXPLORACION.pdf">www.mexicocalidadsuprema.com.mx/documentos/gap/LV_TODO-TIPO-EXPLORACION.pdf</a></p> <p><i>Puntos de Control y Criterios de Cumplimiento Base Cultivos - Todo tipo</i> (Versión: 2.0_Mar08) [Control Points and Compliance Criteria – Crops Base]<br/>           Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC_EXPLORACIONES-AGRICOLAS.pdf">www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC_EXPLORACIONES-AGRICOLAS.pdf</a></p> <p><i>Lista de Verificación Base Cultivos - Todo tipo</i> (Versión: 2.0_Mar08) [Audit Checklist Crops Base – All types]<br/>           Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx/documentos/gap/LV_EXPLORACIONES-AGRICOLAS.pdf">www.mexicocalidadsuprema.com.mx/documentos/gap/LV_EXPLORACIONES-AGRICOLAS.pdf</a></p> <p><i>Puntos de Control y Criterios de Cumplimiento Frutas y Hortalizas</i> (Versión: 2.0_Mar08) [Control Points and Compliance Criteria – Fruits and Vegetables]<br/>           Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC_FRUTAS&amp;HORTALIZAS.pdf">www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC_FRUTAS&amp;HORTALIZAS.pdf</a></p> <p><i>Lista de Verificación Frutas y Hortalizas</i> (Versión: 2.0_Mar08) [Audit Checklist – Fruits and Vegetables]<br/>           Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx/documentos/gap/LV_FRUTAS&amp;HORTALIZAS.pdf">www.mexicocalidadsuprema.com.mx/documentos/gap/LV_FRUTAS&amp;HORTALIZAS.pdf</a></p> |

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| <p><b>Food Safety (continued)</b></p> | <p>The required practices include, as per GlobalGAP's format:</p> <p><b>All Farm Base</b><br/> AF .1 Record Keeping and Internal Self-Assessment/Internal Inspection<br/> AF .2 Site History and Site Management<br/> AF .3 Workers' Health, Safety and Welfare<br/> AF .4 Waste and Pollution Management, Recycling and Re-Use<br/> AF .5 Environment and Conservation<br/> AF .6 Complaints<br/> AF .7 Traceability</p> <p><b>Crops Base Module</b><br/> CB .1 Traceability<br/> CB .2 Propagation Material<br/> CB .3 Site History and Site Management<br/> CB .4 Soil Management<br/> CB .5 Fertilizer Use<br/> CB .6 Irrigation/Fertigation<br/> CB .7 Integrated Pest Management<br/> CB .8 Plant Protection Products</p> <p><b>Fruit and Vegetables Module</b><br/> FV .1 Propagation Material<br/> FV .2 Soil and Substrate Management<br/> FV .3 Irrigation/Fertigation<br/> FV .4 Harvesting<br/> FV .5 Produce Handling</p> |
| <p><b>Traceability</b></p>            | <p>Documented traceability system that allows tracing registered product under MéxicoGAP to the production unit or group of producers where it was grown as well as to the immediate buyer. The information must link harvest batches to production records.</p> <p>Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC_EXPLORACIONES-AGRICOLAS.pdf">www.mexicocalidadsuprema.com.mx/documentos/gap/PCCC_EXPLORACIONES-AGRICOLAS.pdf</a></p>  |

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| <b>Conformity Assessment</b>              | <p>MexicoGAP has directly adopted the General Regulations, etc. from GlobalGAP as the basis of its management system.</p> <p>Site Under Construction: <a href="http://www.mexicocalidadsuprema.com.mx/gap/normativos.php">www.mexicocalidadsuprema.com.mx/gap/normativos.php</a></p> <p>MexicoGAP's certification scheme involves:</p> <p><b>Option 1 - Individual Farm Certification</b></p> <ul style="list-style-type: none"> <li>• An annual internal audit;</li> <li>• An annual announced external audit by a certification body inspector or auditor;</li> <li>• Unannounced audits by the certification body of 10 percent of the farms it certifies under Option 1; and</li> <li>• A three (3)-year certification period</li> </ul> <p><b>Option 2 - Group Certification</b> (where farms have contractual relationship for the purchase of product [e.g. a co-operative, etc.] )</p> <ul style="list-style-type: none"> <li>• Annual farm self-inspection;</li> <li>• Annual internal audit by the group of all participating farms;</li> <li>• An external audit of the group's management system by an approved certification body; and</li> <li>• An external audit of "a random sample that as a minimum is the square root of the total number of GlobalGAP-registered farmers within the Farmer Group."</li> </ul> |
| <b>Certification Bodies</b>               | <p>As of April 30, 2010, MCS has licensed 2 domestic certification bodies:</p> <p>NORMEX de Michoacán A.C.<br/>Organismo de Certificación de la Uva de Mesa</p>  |
| <b>Recognition by Government</b>          | <p>The government of Mexico participated, through SENASICA, in the development of MexicoGAP.</p>   |
| <b>Private Sector Benchmarking</b>        | <p>MexicoGAP is benchmarked to GlobalGAP IFA 3.0 Fruit and Vegetables under the approved modified checklist option for certification options 1 (individual farms) and 2 (groups)</p>   |
| <b>Use of Marks/Labeling</b>              | <p>Not on product sold to consumers.</p>   |
| <b>International Food Safety Programs</b> |  |
| <b>Name</b>                               | <p><b>GlobalGAP</b><br/><a href="http://www.globalgap.org">www.globalgap.org</a></p>   |
| <b>Program Scope</b>                      | <p>GlobalGAP is a HACCP-based integrated farm assurance scheme. It covers a wide range of products and has a specific module for fruits and vegetables that covers primary production and primary packing.</p>   |

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| <b>Participation</b>             | As of April 30, 2010, GlobalGAP reported for Mexico<br>Option 1 (Individual): 380 farms (including 24 to MexicoGAP)<br>Option 2 (Group): 0   |
| <b>Certification Bodies</b>      | Domestic<br><br>NORMEX de Michoacán A.C.<br>Organismo de Certificación de la Uva de Mesa<br><br>Foreign<br><br>BCS Mexico [BCS Öko-Garantie GmbH] <a href="http://www.bcs-oeko.com">www.bcs-oeko.com</a><br>Bureau Veritas Certification Mexico [Bureau Veritas Certification S.A.U. (Spain)] <a href="http://www.bureauveritas.com.mx">www.bureauveritas.com.mx</a><br>DQS de México S.A. de C.V. [DQS GmbH] <a href="http://www.dqscert.com">www.dqscert.com</a><br>Intertek Mexico [Intertek Food Services GmbH] <a href="http://www.intertek.com">www.intertek.com</a><br>LATU Sistemas S.A. (México) [LSQA (LATU Sistemas S.A.)] <a href="http://www.lsqanet.com">www.lsqanet.com</a><br>NSF-CMi Mexico [NSF-CMi Certification] <a href="http://www.nsf.org">www.nsf.org</a><br>SGS Mexico [SGS Systems and Services Certification] <a href="http://www.sgs.com">www.sgs.com</a><br><br><a href="http://www2.globalgap.org/apprcbs.html">http://www2.globalgap.org/apprcbs.html</a> |
| <b>Recognition by Government</b> | Mexico, through the benchmarked MexicoGAP program, participates in the GlobalGAP scheme.   |
|                                  |  |
| <b>Name</b>                      | <b>SQF (Safe Quality Foods)</b>  |
| <b>Program Scope</b>             | SQF 1000 and SQF 2000 are generic HACCP-based food safety programs for primary production and for subsequent stages in the supply chain (e.g. manufacturers, distributors, brokers).   |
| <b>Participation</b>             | As of April 30, 2010, SQF had certificates issued in Mexico for:<br><br>Primary producers (SQF 1000): 6<br>Packinghouses (SQF 1000 or SQF 2000): 6<br>Warehouse/distributor (SQF 2000): 0<br><br><a href="https://sqfi.muddyboots.biz/Level1Report/">https://sqfi.muddyboots.biz/Level1Report/</a>   |



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| <b>Certification Bodies</b>      | <p>Certification bodies must be licensed by the SQF Institute. SQF has licensing agreements with two accreditation bodies (ANSI in U.S., JAS-ANZ in Australia) to accredit CBs to the SQF requirements, including ISO Guide 65.</p> <p>JAS-ANZ has accredited 2 certification bodies with Mexico included in their scope:</p> <p style="padding-left: 40px;">SAI Global Certification Services Pty Ltd Trading as SAI Global<br/>Silliker Global Certification Services</p> <p>ANSI has accredited 10 certification bodies to operate globally (e.g. including in Mexico):</p> <p style="padding-left: 40px;">AIB International Inc.<br/>Bureau Veritas Certification North America (BVCNA)</p> <p style="padding-left: 40px;">Det Norske Veritas Certification Inc.</p> <p style="padding-left: 40px;">Eagle Food Registrations Inc.</p> <p style="padding-left: 40px;">Guelph Food Technology Centre (GFTC)</p> <p style="padding-left: 40px;">NCS International Pty Ltd. (NCSI)</p> <p style="padding-left: 40px;">NSF International</p> <p style="padding-left: 40px;">Scientific Certification Systems Inc.</p> <p style="padding-left: 40px;">The Steritech Group Inc.</p> <p style="padding-left: 40px;">TUV SUD America Inc.</p> |
| <b>Recognition by Government</b> | No   |
|                                  |  |
| <b>Name</b>                      | <p><b>BRC Global Standard for Food Safety</b><br/> <a href="http://www.brcglobalstandards.com">www.brcglobalstandards.com</a></p>  |
| <b>Program Scope</b>             | <p>The BRC Global Standard for Food Safety is a HACCP scheme for food manufacturers.</p> <p>The <i>Guideline for Category 5 Fresh Produce</i> provides guidance on interpreting the requirements of the standard for fresh produce packers falling into Product Category 5: fruit, vegetables and nuts.</p>  |
| <b>Participation</b>             | <p>As of April 30, 2010, the BRC reported certification in Mexico:</p> <p style="padding-left: 40px;">Produce packers: 5</p>   |

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| <b>Certification Bodies</b>      | <p>The BRC has licensed 1 Mexican certification body:</p> <p style="text-align: center;">DNV Mexico</p> <p>Other BRC-licensed foreign certification bodies include:</p> <p style="text-align: center;">NSF - CMI Certification<br/>ECCO INGENIEROS S.L</p> |
| <b>Recognition by Government</b> | No   |

### Annex A: Crops covered by DGIAPP BPA/BPM Certification in 2008

#### RELACIÓN DE PRODUCTOS QUE SE INCLUYEN EN EL PROGRAMA DE CERTIFICACIÓN 2008

|                                 |                                      |                |                  |
|---------------------------------|--------------------------------------|----------------|------------------|
| 01.- Acelga                     | 19.- Col de Bruselas <sup>1</sup>    | 37.-Limón      | 55.- Poro        |
| 02.- Aguacate Hass <sup>1</sup> | 20.- Coliflor                        | 38.- Mandarina | 56.- Quelite     |
| 03.- Ajo <sup>1</sup>           | 21.- Cuadrilla de corte              | 39.- Mango     | 57.- Rábano      |
| 04.- Albahaca <sup>1</sup>      | 22.- Dill                            | 40.- Manzana   | 58.- Radichio    |
| 05.- Apio <sup>1</sup>          | 23.- Durazno <sup>1</sup>            | 41.-Mejorana   | 59.-Romero       |
| 06.- Arándano                   | 24.- Ejote <sup>1</sup>              | 42.-Melón      | 60.- Salvia      |
| 07.- Berenjena <sup>1</sup>     | 25.- Epazote                         | 43.- Menta     | 61.-Sandia       |
| 08.- Betabel                    | 26.- Espárrago <sup>1</sup>          | 44.- Naranja   | 62.- Thai        |
| 09.- Brócoli <sup>1</sup>       | 27.- Especies                        | 45.- Nopal     | 63.- Tomate      |
| 10.- Calabacita <sup>1</sup>    | 28.- Espinaca                        | 46.- Nuez      | 64.- Tomatillo   |
| 11.- Cebolla                    | 29.- Frambuesa <sup>1</sup>          | 47.- Orégano   | 65.- Toronja     |
| 12.- Cebolla Cambray            | 30.- fresa <sup>1</sup>              | 48.- Papaya    | 66.- Tuna        |
| 13.- Cebollón <sup>1</sup>      | 31.- Guayaba                         | 49.- Pepino    | 67.- Uva de mesa |
| 14.- Champiñón                  | 32.- Hierbas aromáticas <sup>1</sup> | 50.- Pera      | 68.- Verdolaga   |
| 15.- Chayote                    | 33.- Jícama                          | 51.- Perejil   | 69.- Xoconostle  |
| 16.- Chicharo <sup>1</sup>      | 34.- Lechuga                         | 52.- Pimiento  | 70.- Zanahoria   |
| 17.- Chile <sup>1</sup>         | 35.- Leek                            | 53.- Piña      | 71.- Zorzamora   |
| 18.- Cilantro <sup>1</sup>      | 36.- Lima                            | 54.- Plátano   |                  |

Cuadro XIII

<sup>1</sup>Pertenece a la lista de 38 productos incluidos en 2007

Source: *Evaluación del Programa de Buenas Prácticas Agrícolas* (2009) p. 34  
[www.senasica.gob.mx/?doc=8901](http://www.senasica.gob.mx/?doc=8901)



## FRESH PRODUCE TRADE WITH U.S.

## U.S. Imports

Peru's exports of fresh vegetables and fruits to U.S.

Value (2009) \$285.7 million

Source: U.S. Department of Commerce

## Legislation

## Food Safety

In 2008, Peru implemented a modernized new food safety law and began to publish new regulations. This new law takes as its starting point a set of 10 principles and supports the implementation of an integrated supply chain approach (farm-to-fork) food safety system.

This process is expected to continue for several years as regulations pertaining to specific sectors, such as primary production, are published.

Legislative Decree No. 1062 – 2008 - Decreto Legislativo que Aprueba la Ley de Inocuidad de los Alimentos (Legislative Decree That Approves the Law of Food Safety)  
[www.portalagrario.com.pe/dl1062.shtml](http://www.portalagrario.com.pe/dl1062.shtml)

Decreto Supremo N° 034-2008-AG - Reglamento del Decreto Legislativo N° 1062 Ley de Inocuidad de los Alimentos (Regulation of the Food Safety Law)  
[http://www.senasa.gob.pe/RepositorioAPS/0/3/JER/IA\\_LEG/D.S.%20034-2008-AG%20Reglamento%20de%20la%20Ley%20de%20INOCUIDAD.pdf](http://www.senasa.gob.pe/RepositorioAPS/0/3/JER/IA_LEG/D.S.%20034-2008-AG%20Reglamento%20de%20la%20Ley%20de%20INOCUIDAD.pdf)

In development, as of mid 2009, is Reglamento del Sector Producción de la Ley de Inocuidad de los Alimentos (Primary Production Regulation of the Food Safety Law), which will require food businesses and exporters of agricultural products to be registered with SENASA (Servicio Nacional de Sanidad Agraria -National Agricultural Health Service))and implement (as appropriate) good agricultural practices, good manufacturing practices and HACCP

[http://ec.europa.eu/food/fvo/rep\\_details\\_en.cfm?rep\\_id=2290](http://ec.europa.eu/food/fvo/rep_details_en.cfm?rep_id=2290)



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| Plant Protection Products | <p>Pesticide registration and use are regulated through an interlocking set of domestic laws and regulations and agreements with the Andean Community.</p> <p>The registry of chemical pesticides for agricultural use is regulated by <b>Decision 436</b> of the Andean Community, Andean Standard for the Registration and Control of Chemical Pesticides for Agricultural Use, Technical Manual, and approved by Resolution 630 of the General Secretariat of the Andean Community.<br/> <a href="http://home.stat-usa.gov/agworld.nsf/505c55d16b88351a852567010058449b/38595b420dc32290852574c2007147e9/\$FILE/PE8018.PDF">http://home.stat-usa.gov/agworld.nsf/505c55d16b88351a852567010058449b/38595b420dc32290852574c2007147e9/\$FILE/PE8018.PDF</a> and <a href="http://www.comunidadandina.org/documentos.asp">www.comunidadandina.org/documentos.asp</a></p> <p>These are complemented by:</p> <p style="padding-left: 40px;">Regulation for the Registration and Control of Chemical Pesticides for Agricultural Use, approved by <b>Supreme Decree No. 16-2000-AG and its amending regulations (Ministerial Resolution N ° 476-2000-AG, Ministerial Resolution No. 639-2000-AG and Ministerial Resolution N ° 1216-2001-AG)</b>.</p> <p>Biological products are regulated by <b>Supreme Decree No. 15-95-AG</b>, Regulations on the Registration, Marketing and Agricultural Pesticide Control and Related Substances.<br/> <a href="http://www.senasa.gob.pe/0/modulos/JER/JER_Interna.aspx?ARE=0&amp;PFL=0&amp;JER=578">www.senasa.gob.pe/0/modulos/JER/JER_Interna.aspx?ARE=0&amp;PFL=0&amp;JER=578</a></p> |
| Export                    | <p>Legislative Decree No. 1062 – 2008 and Supreme Decree No. 034-2008-AG applies to food and feed for both domestic and export markets.</p> <p>The Act and regulations also provide authority for the competent authorities (e.g. SENASA in the case of fresh produce) to issue certificates based on the requirements of exporting countries.</p> <p>SENASA has entered into phytosanitary agreements with the U.S. with regard to certain fresh produce products including asparagus, hass avocados, etc.</p> <p>The industry association, PromPeru, also publishes a guide covering maximum residue limits (MRLs) in exporting countries: <a href="http://www.siicex.gob.pe/siicex/portal5ES.asp?page=463.34600#anclafecha">www.siicex.gob.pe/siicex/portal5ES.asp?page=463.34600#anclafecha</a></p>  |

**Competent Authorities**

Legislative Decree No. 1062 – 2008 allocates the responsibility for food safety among several departments of the national government and to regional authorities:

**Permanent Multi-Sectoral Commission for Food Safety (Comisión Multisectorial Permanente de Inocuidad Alimentaria – COMPIAL):** Article 13 establishes a new commission, which is composed of the Ministries of Health, Agriculture and Production. It is chaired by the Health Ministry. Its responsibility is to:

- Coordinate sectoral activities and civil society to ensure safe food for human consumption along the entire food chain;
- Monitor the implementation of this Act with the various levels of government;
- Coordinate and exchange information with consumers and operators involved in all stages of the food chain; and,
- Ensure that the authorities of all levels of government implement comprehensive recall procedures.

**Ministry of Health (Dirección General de Sanidad Ambiental - DIGESA):**

Under Article 14, the Directorate General of Environmental Health has exclusive jurisdiction at the national level for the safety of food for human consumption, including processed, produced domestically or foreign, except for fisheries and aquaculture foods. Its responsibilities (Article 15) include establishing:

- General standards of hygiene throughout the chain of food and beverages for human consumption;
- The conditions, requirements and procedures for the registration of plants, issuing export certificates, etc.;
- Standards for health surveillance, safety, violations and penalties for manufacturing establishments, storage and other food businesses;
- The national system of traceability; and,
- Maximum residue levels (MRLs) for pesticides and veterinary drugs and other chemical contaminants as well as standards on physical and microbiological contaminants.

In addition it is responsible for managing:

- Equivalence determinations and the international harmonization of Peruvian food law, including acting as the Codex contact point;
- The national recall process; and
- The risk analysis system.

**Competent Authorities (continued)**

**Ministry of Agriculture:** Under Article 16, SENASA - El Servicio Nacional de Sanidad Agraria (National Agricultural Health Service) – is granted exclusive jurisdiction for food safety regarding agricultural production and primary processing of food for human consumption and feed production of domestic or foreign origin. Its responsibilities (Article 17) include:

- Promoting and facilitating the implementation of a system of quality assurance based on hazard analysis critical control point (HACCP) and its prerequisites, in order to ensure safe products and
- Issuing technical protocols relating to compliance with food safety standards of production and primary processing;
- Implementing, within the scope of its competence, the traceability system in coordination with other competent authorities;
- Certifying, upon request, the safety of food production and primary processing for the domestic market and foreign trade; and,
- Managing the international equivalence of food law, to ensure recognition of agricultural and primary processed products by countries to which food is exported.
- Regional and Local Governments, under Article 20, have been allocated responsibilities with regarding surveillance and control, organic production, monitoring markets, food processors, food service, etc.

**Mandatory Food Safety Requirements****General Food Safety Requirements**

Legislative Decree No. 1062 – 2008 (Article 5) requires food businesses, including primary producers, to provide safe and healthy food by complying with:

- The law and regulations;
- National health and quality standards set by the Ministry of Health;
- The General Principles of the Codex Alimentarius;
- Traceability requirements;
- Information and labeling requirements; and,
- Recall, notification and corrective action requirements.

The regulations (Decreto Supremo N° 034-2008-AG, Article 8) add to these general expectations related to the Codex General Principles by requiring the implementation of good agricultural practices, good manufacturing practices, HACCP and other standards established by the competent authorities.

The decree and regulations (Article 24) provide the competent authorities with a wide range of powers for use at any stage of the chain with respect to products that are unfit for human or animal consumption, including:

- Detention;
- Recalls of food and feed;
- Suspension of activities;
- Temporary closure of the establishment;
- Confiscation or forfeiture;
- Seizure; and
- Disposal.



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| <p><b>General Food Safety Requirements (continued)</b></p> | <p>In addition to the Act and regulations, there are national standards on production and processing of fresh produce generally:</p> <p style="text-align: center;"><i>NTP 011.125:2006 - Good Agricultural Practices for Horticulture;</i></p> <p>and some specific commodities</p> <p style="text-align: center;"><i>NTP 209.402:2003 ASPARAGUS. Good Agricultural Practices.</i><br/> <i>NTP 209.401:2001 ASPARAGUS. Fresh Asparagus. Requirements.</i><br/> <i>NTP 209.401:2001 ASPARAGUS. Hygiene Practices for Processing Fresh Asparagus.</i></p> <p><a href="http://www.siicex.gob.pe/siicex/porta15ES.asp?_page_=352.34600">www.siicex.gob.pe/siicex/porta15ES.asp?_page_=352.34600</a></p>  |
| <p><b>Primary Production</b></p>                           | <p><i>NTP 011.125:2006 - Good Agricultural Practices for Horticulture.</i> Establishes best practices for horticultural production to ensure a safe and healthy product based on the application of HACCP principles and procedures compatible with sustainable agriculture and minimal impact on the environment.</p> <p><i>NTP 209.402:2003 ASPARAGUS. Good Agricultural Practices.</i> Defines good agricultural practices for asparagus production that will ensure a healthy product, free from pollutants and from phytosanitary problems (presence and/or damage caused by pests). Good Agricultural Practices (GAP) combines a series of technologies and techniques that emphasize integrated pest management and natural resource and environmental conservation, while minimizing hazards to human health.</p> |
| <p><b>Packinghouse</b></p>                                 | <p><i>NTP 011.125:2006 - Good Agricultural Practices for horticulture</i></p> <p><i>NTP 209.401:2001 ASPARAGUS. Hygiene Practices for Processing Fresh Asparagus.</i> Establishes hygiene practices for handling (cultural practices and harvesting, washing, cutting, selection, packaging, refrigeration, storage, transportation, distribution and sale) of fresh asparagus for human consumption to guarantee a safe and healthy product. The standard deals with the processing of asparagus for marketing as fresh produce.</p>   |
| <p><b>Handling</b></p>                                     | <p>See above</p>  |
| <p><b>Transportation</b></p>                               | <p>See above</p>  |
| <p><b>Traceability</b></p>                                 | <p>Legislative Decree [No. 1062 – 2008 (Article 9) requires all stages of production, processing, distribution and marketing to “ensure the traceability of food, feed, animals for food production and any other substance intended to be incorporated into a food or feed. ...”</p> <p>The regulations (Decreto Supremo N° 034-2008-AG, Articles 17 and 18) prescribe that a food business’ traceability system should include information on suppliers of raw materials and supplies of food and feed, as well as customer information including company name, registration, address, goods supplied, date of receipt, etc.</p>  |

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| <b>Conformity Assessment /Inspection</b>        | <p>Legislative Decree No. 1062 – 2008 (Article 10) provides that “production sites and facilities related to food production may be subject, at any time, to monitoring and health checks to verify the implementation of a system of quality assurance based on Hazard Analysis and Critical Control Point (HACCP).”</p> <p>It does not specify monitoring/inspection frequencies.</p>   |
| <b>Sampling Programs for Pesticide Residues</b> | <p>SENASA (Servicio Nacional de Sanidad Agraria) coordinates residue monitoring with the specialized agency of the Ministry of Health and with the private sector to ensure that agricultural products for domestic consumption and for export do not exceed the existing maximum residue limits set by the Codex Alimentarius. For products not covered by Codex it references the MRLs suggested by the manufacturer or a formula approved in the registry.</p> <p><a href="http://www.senasa.gob.pe/0/modulos/JER/JER_Interna.aspx?ARE=0&amp;PFL=0&amp;JER=578">www.senasa.gob.pe/0/modulos/JER/JER_Interna.aspx?ARE=0&amp;PFL=0&amp;JER=578</a></p> |
| <b>Certification of Laboratories</b>            | <p>SENASA’s main laboratory (Unidad del Centro de Control de Insumos y Residuos Tóxicos [UCCIRT]) operates under ISO 17025 requirements.</p> <p><a href="http://www.senasa.gob.pe/0/modulos/JER/JER_Interna.aspx?ARE=0&amp;PFL=4&amp;JER=273">www.senasa.gob.pe/0/modulos/JER/JER_Interna.aspx?ARE=0&amp;PFL=4&amp;JER=273</a></p>  |
| <b>Certification of Exports</b>                 | <p>SENASA provides export certificates based on the requirements of importing countries.</p>  |

### International Food Safety Programs

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| <b>Name</b>          | <p><b>GlobalGAP</b></p> <p><a href="http://www.globalgap.org">www.globalgap.org</a></p>  |
| <b>Program Scope</b> | <p>GlobalGAP is a HACCP-based integrated farm assurance scheme. It covers a wide range of products and has a specific module for fruits and vegetables that covers primary production and primary packing.</p> |
| <b>Participation</b> | <p>As of April 30, 2010, GlobalGAP reported for Peru:</p> <p>Option 1 (Individual): 213 farms<br/>Option 2 (Group): 1,008 farms</p>  |



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| <b>Certification Bodies</b>      | <p>GlobalGAP has licensed nine (9) certification bodies for Peru. Of these, one is a domestic operation and the remaining eight (8) are branches or subsidiaries of certification bodies headquartered elsewhere.</p> <p>Domestic</p> <p>Bio Latina S.A.C. <a href="http://www.biolatina.com">www.biolatina.com</a></p> <p>Foreign</p> <p>BIVAC DEL PERU S.A.C [Bureau Veritas Certification S.A.U. (Spain)] <a href="http://www.bureauveritas.com.pe">www.bureauveritas.com.pe</a></p> <p>Control Union Certifications (Skal International) Peru [Control Union Certifications B.V.] <a href="http://www.skalint.com">www.skalint.com</a></p> <p>ICONTEC PERU [ICONTEC (Columbia)] <a href="http://www.icontec.org.co">www.icontec.org.co</a></p> <p>Inspectorate Services Perú S.A.C. [Inspectorate de Argentina S.A.] <a href="http://www.inspectorate.com">www.inspectorate.com</a></p> <p>Intertek Peru [Intertek Food Services GmbH] <a href="http://www.intertek.com">www.intertek.com</a></p> <p>IRAM PERU [IRAM-Instituto Argentino de Normalización y Certificación] <a href="http://www.iram.org.ar">www.iram.org.ar</a></p> <p>NSF-CMi Davis Fresh Peru [NSF-CMi Certification] <a href="http://www.nsf.org">www.nsf.org</a></p> <p>SGS Peru. S.A.C. [SGS Systems and Services Certification] <a href="http://www.sgs.com">www.sgs.com</a></p> |
| <b>Recognition by Government</b> | <p>Not in Peru</p>   |
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| <b>Name</b>                      | <p><b>SQF (Safe Quality Foods)</b></p>   |
| <b>Program Scope</b>             | <p>SQF 1000 and SQF 2000 are generic HACCP-based food safety programs for primary production and for subsequent stages in the supply chain (e.g. manufacturers, distributors, brokers).</p>  |
| <b>Participation</b>             | <p>As of April 19, 2010, SQF had certificates issued in Peru for:</p> <p>Primary Producers: 0<br/>Packinghouses (SQF 2000): 7</p> <p><a href="https://sqfi.muddyboots.biz/Level1Report/">https://sqfi.muddyboots.biz/Level1Report/</a></p> <p>The registered packinghouses handled a range of products:</p> <p>Asparagus – 5 packinghouses<br/>Grapes – 2 packinghouses<br/>Other products – 2 packinghouses</p>   |



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| <p><b>Certification Bodies</b></p>      | <p>Certification bodies must be licensed by the SQF Institute. SQF has licensing agreements with two accreditation bodies (ANSI in U.S., JAS-ANZ in Australia) to accredit certification bodies to the SQF requirements, including ISO Guide 65.</p> <p>JAS-ANZ has accredited two (2) certification bodies with Peru included in their scope:</p> <p style="padding-left: 40px;">SAI Global Certification Services Pty Ltd Trading as SAI Global<br/>SGS Systems Services Certification Pty Ltd</p> <p>ANSI has accredited 10 certification bodies to operate globally (e.g. including in Peru):</p> <p style="padding-left: 40px;">AIB International Inc.<br/>Bureau Veritas Certification North America (BVCNA)<br/>Det Norske Veritas Certification Inc.<br/>Eagle Food Registrations Inc.<br/>Guelph Food Technology Centre (GFTC)<br/>NCS International Pty Ltd. (NCSI)<br/>NSF International<br/>Scientific Certification Systems Inc.<br/>The Steritech Group Inc.<br/>TUV SUD America Inc.</p> |
| <p><b>Recognition by Government</b></p> | <p>No</p>   |
|   |   |
| <p><b>Name</b></p>                      | <p><b>BRC Global Standard for Food Safety</b><br/><a href="http://www.brcglobalstandards.com">www.brcglobalstandards.com</a></p>  |
| <p><b>Program Scope</b></p>             | <p>The Global Standard for Food Safety is a HACCP scheme for food manufacturers.</p> <p>The <i>Guideline for Category 5 Fresh Produce</i> provides guidance on interpreting the requirements of the standard for fresh produce packers falling into Product Category 5: fruit, vegetables and nuts.</p>   |
| <p><b>Participation</b></p>             | <p>As of April 30, 2010, the BRC reported certifications in Peru:</p> <p style="padding-left: 40px;">Produce Packers: 17</p>  |



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| <b>Certification Bodies</b>      | The BRC has not licensed any Peruvian certification bodies.<br>BRC-licensed foreign certification bodies operating in Peru include:<br><br>Inspectorate de Argentina S.A.<br>NSF-CMi Certification<br>SGS United Kingdom Limited |
| <b>Recognition by Government</b> | No   |