

P private Sector Initiatives in Food Safety: The Case of the Colombian Poultry Industry

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Abstract

Over the past decade, trade liberalization and accession to the World Trade Organization have subjected the Colombian agri-food industry to increased competition with imported foodstuffs on domestic markets. Price and quality, including food safety, are part of the competitive challenge. Following the introduction of a new food safety regulation in 1997, which makes the introduction of Good Manufacturing Practices obligatory and which aims to align domestic standards with international ones, the Colombian poultry producers association (FENAVI) launched an industry-wide pilot program to introduce quality assurance in poultry slaughterhouses. Technical support for this voluntary initiative was provided by non-governmental service organizations, the International Colombian Corporation (CCI) and its quality assurance group, ASECALIDAD. The program, which received some initial government support, introduced GMP and HACCP plans in 20 firms. Industry managers and FENAVI have been very pleased with the program's results, and are extending it to a second phase to include other firms. This case provides a model of how a producers' association can take a positive, pro-active approach to meeting international competition for quality, by sponsoring a collective action which it would be difficult for individual producers to undertake on their own.

Introduction

Today's global economy requires agri-food industries to be competitive. This depends not only on their capacity to lower production costs, but also on their ability to supply high quality products to meet increasing consumer demand for better quality.

As a consequence of the trade liberalization process which started in Colombia in 1991, followed by Colombian membership in the World Trade Organization (WTO) in 1994, the local food industry began to face increasing competition with less expensive, higher quality products from abroad. This raised several food safety-related questions for the national agri-food sector. Are we ready to compete on price, quality and safety with imports? Can scattered efforts to produce better quality products enable us to maintain our market shares domestically and to compete internationally? Are official regulation, surveillance and control measures in accordance with those used in international trade, and are their results effective?

This paper presents a brief description of the Colombian poultry industry and the official regulatory framework for food safety. It then examines how, within this framework, the poultry industry in Colombia sought to provide responses to these questions, by launching an initiative to produce a product able to compete against imported chicken and other imported or locally produced meats, on criteria of both price and quality.

The Colombian Poultry Industry¹

With a total population of about 38 million people, and surface area of 1.1 million square km, Colombia is the third most populated Latin American country. Colombia's processed food sector, which comprises one-third of the country's manufacturing industry, has grown at a rate of nearly 5% each year since 1980. Among food industries, poultry is one of the most dynamic sectors and domestic poultry production has increased nearly fourfold within the last twenty years (Figure I).

The industry has a relative low degree of concentration and of vertical integration at both production and processing levels. About 1 200 farms are engaged in poultry production, and there are 76 poultry processing plants located in the main regions of the country. However, the industry is slowly heading towards increasing vertical coordination via production contracts, resembling the structure of the poultry industry in the United States.

Chicken consumption in Colombia has also increased rapidly in the last twenty years (Figure I), bringing per capita consumption from 3.8 kg in 1980 to 12.4 kg in 1999. Trends in demand are explained by increases in per capita income and by the fact that the relative price of chicken has decreased substantially in the period 1980-97. Chicken is now sold at about half the price of either pork or beef. Today, chicken is the second most important source of proteins after beef in Colombia and accounts for about 40% of total meat intake.

Chicken in Colombia is an importable good, particularly with respect to chicken from the United States, which is produced to meet the higher food safety standards of the North American market. Figure II shows that U.S. chicken has had lower CIF prices relative to wholesale domestic prices in the period 1980-98. These price differentials raise questions concerning the viability of the domestic poultry industry, particularly given the gradual elimination of trade barriers for imported foods.

The Institutional Framework for Food Safety Regulation

In Colombia, there are a range of entities involved in food safety assurance activities: government agencies, producers organizations and service providers.

¹ The description in this section draws on GOMEZ and TORRES, 2000.

Government Agencies

The government agencies include several ministries which are encouraging producers to develop and carry out quality assurance programs and educating consumers to stimulate the demand for safer food products. The Ministry of Agriculture and Rural Development is responsible for policies and regulations on sanitary and phytosanitary aspects of animal and vegetable primary production. ICA, an agency within this Ministry, has responsibility for surveillance and control. The Health Ministry is responsible for the policies and regulations on the safety of drugs and processed food products. Surveillance and control are the functions of INVIMA, an agency within this Ministry. The Ministry of Environment is responsible for policies and regulations on natural resource use. The Regional Corporations have responsibility for surveillance and control in this area. Finally, the Ministries of Economic Development, Foreign Trade and Education play an important role by designing programs and raising funds for the implementation and certification of quality assurance systems as a tool for competitiveness in global trade.

Producers' Organizations

Producers' organizations, operating as private entities, promote cooperation among their members, support research and technology transfer and conduct lobbying with government to protect the interests of their industry. Groups relevant to the livestock sector include the National Federation of Poultry Producers (FENAVI), the Colombian Association of Pork Producers (ACP), the National Federation of Livestock and Milk Producers (FEDEGAN), the National Association of Industries (ANDI) and the Colombian Association of Small Industries (ACOPI). FENAVI, ACP and FEDEGAN each administer their own funds raised by collecting taxes that each producer pays depending on his volume of output. These are then invested in improvement activities for the industry, through a variety of programs such as research, technology transfer, marketing, animal health and training. Among these activities, a priority area of investment is the establishment of quality assurance programs.

Service Providers

Private consulting firms, universities, and non-profit management and technological development centers count among the country's service providers in the agri-food sector. Within the non-profit group, the International Colombian Corporation (CCI) has played an important role on the food safety scene.

The International Colombian Corporation (CCI)

CCI was created in 1992, to contribute to the modernization of the agri-food sector by promoting the adoption of modern technologies and stimulating private investment in new business alternatives, facing the global market. It provides services in technology development, overall quality consulting, market information services and entrepreneurial development. It has the technical competence to support the food sector in the management of programs integrating commercial conditions with food quality and other market requirements.

In addition to offering extension activities on quality system methodologies and quality certification services, CCI created ASECALIDAD, a group specializing in providing assistance

services for quality improvement. The two entities have been working in the quality field with the purpose of providing support to the agri-food sector by gathering and publishing specialized food safety information, and by editing technical support guides on the application of Hazard Analysis and Critical Control Points (HACCP) programs and on the management of food safety assurance systems.

CCI and ASECALIDAD publications in this area include the following titles:

- “ Hazards and Controls Guide for Chicken Meat”
- “Critical Points”
- “The HACCP Leader Kit”
- “Documentation of the Food Safety Assurance System in a Food Industry”
- “Manual for HACCP Verification” (in press)
- “Food Safety Management Indicators” (in press)
- “Sanitary Approach for Food Plants” (in press)

The New Food Safety Regulations of 1997

In 1997, the Colombian government approved a new food safety regulation (Decree 3075/97) to increase consumers' protection against chemical and biological hazards in the food marketing system. This was also a response to the need to harmonize domestic standards with those commonly accepted in international trade. There are two essential characteristics of the new regulation: (1) food safety standards for fresh products were substantially increased; and (2) the emphasis shifted from inspection of final product toward process-control approaches to safety. The regulation requires all firms processing hazardous food products (meats, dairy, seafood, egg-based, low pH foods, and water) to document and demonstrate compliance with Good Manufacturing Practices (GMPs) standards. In addition, although it does not mandate HACCP specifically, firms are required to develop process control mechanisms to be verified periodically by authorized entities.

Several aspects of this food safety framework are directly relevant to Colombian food producers. First, although the implementation of Decree 3075/97 has not been completed yet, most probably it will embrace minimum standards as defined by the WTO's Agreement on Sanitary and Phytosanitary Measures (SPS). Second, private organizations are key players in the process of supporting food safety assurance activities. Third, if consumer awareness of safety in food products grows, and if trends toward trade liberalization continue, domestic food industries will be well-positioned to compete along safety dimensions with imported foods from countries with higher minimum standards.

The Initiative of the Poultry Sector in Colombia

In 1998, in response to the new regulation and to growing food trade, the National Poultry Federation (FENAVI) launched a sector-wide food safety initiative to prepare the industry for competition with imported chicken and to meet national and international standards.

FENAVI called on CCI and ASECALIDAD to design a collective strategy for the development of the program, with the joint aim of capitalizing on available know-how and experience and overcoming cost constraints. The program was launched in April 1998 and brought together the general managers of all companies. They were given explanations of the advantages of using

quality assurance systems and familiarized with information related to GMP and HACCP approaches. This activity was carried out through conferences, publications and conversations with the interested parties.

Next, the processing plants were invited to take part in the HACCP Pilot Plan. Twenty industries were selected based on commitment to the program, representativeness of all producing regions and size of operation. Initially larger establishments were preferred, and the program included only slaughterhouses, given that they have the highest food safety hazards in the production chain.

A group of junior food technologists was created and trained as HACCP leaders by ASECALIDAD, using specific technical documents prepared in advance. ASECALIDAD also provided technical assistance to the quality teams in each company for the development of the general plan and implementation steps for the introduction of GMP, the development of the HACCP plan and the preparation of a system of support documentation. This technical assistance included periodic visits for on-site training, assessment of self-evaluations and validation of the GMP and HACCP plans. Also technical meetings with the HACCP leaders were carried out to exchange experiences, analyze difficulties, answer questions and find solutions.

Technical assistance ended with a final "Pre-Audit Visit", where the consultants simulated an official assessment of GMP/HACCP in the plant, based on specific assessment tools, and provided final recommendations.

After one year of working together with the service providers, the industries are going on with the process autonomously, seeking certification and continuous improvement in their quality assurance programs.

The results of the pilot program can be summarized as follows:

- Advances in GMP were significant in all twenty plants: physical and operative implementation of GMP evolved from 48.7% to 77.3% measured as a Sanitary Profile.
- Compliance with official regulations established through Decree 3075/97 increased, on average, by 28.6%, reaching values on the order of 80%.
- Development of the standardized sanitary operating procedures (SSOP), the worker training program and the documentation that supports the food safety assurance system was achieved by 80% of the firms. Other complementary programs like maintenance of equipment, control of dealer agents and traceability of products remains to be done by participating companies over the months ahead.
- Industries are close to obtaining HACCP certification from the official agency INVIMA or from international accredited certifiers.

Additionally, the general managers of the companies acknowledged that the project contributed to modifying workers' attitudes and to a better understanding of how to control the production process. As a result, there was a favorable change in the organizational atmosphere and an increase in product quality, production efficiency and sales.

Although the program is voluntary, the results stimulated management commitment to extend the quality assurance system to other products, processes and plants within their companies. In addition, managers highlighted the need to make effective the official controls on regulatory

compliance. They also proposed the introduction of obligatory HACCP systems across Colombian poultry slaughterhouses, in order to offer wholesome foods to the population, as a complementary measure to reduce unfair competition and as a way of harmonizing domestic standards with those commonly accepted in international trade.

Success of the HACCP pilot plan led FENAVI to decide to continue the initiative, and presently a second group of industries is developing a similar program with the technical assistance of ASECALIDAD.

Conclusions

Actions described thus far were possible due to the simultaneous occurrence of the following factors: a competitive approach and leadership by the producer association, FENAVI; the availability of financial resources; the existence of qualified service providers including CCI, which looks for routes to modernize the agri-food sector and for ways to improve communication between participants, and ASECALIDAD which has expertise to guide industry's implementation of food safety and quality assurance programs.

The FENAVI initiative is a model of a producers' association role, looking for better quality as a competitive strategy to maintain domestic market share, to improve the ability to compete in international markets and, simultaneously, to promote compliance with official regulations and offer wholesome foods to the domestic population. The role of the producers' association is crucial in this respect, in supporting collective actions which can't be taken on by individual producers.

References

GOMEZ, M.I., TORRES, J.A., 2000. Food Safety Regulation, Trade, and Private Initiatives: The Case of the Colombian Poultry Industry. Paper presented at the annual meeting of the International Association of Agricultural Economists, Berlin, August 12-17, 2000 (processed).

Figure I. Colombia, Chicken Production & Consumption
1980-1999 ('000 metric t)

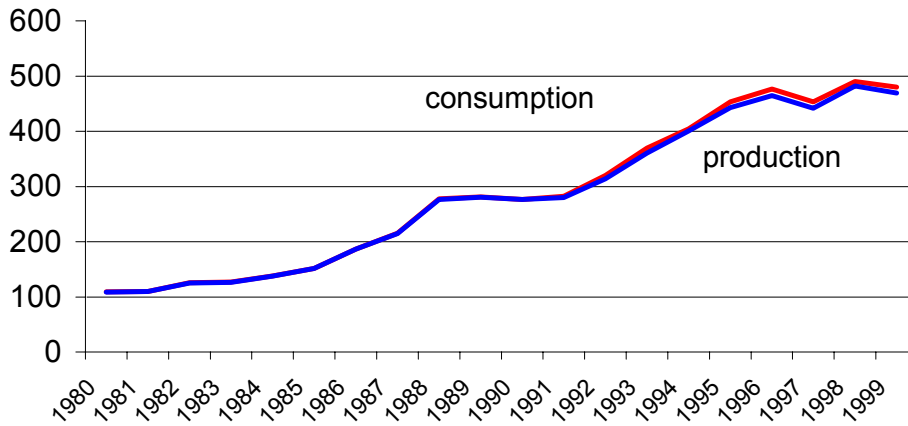
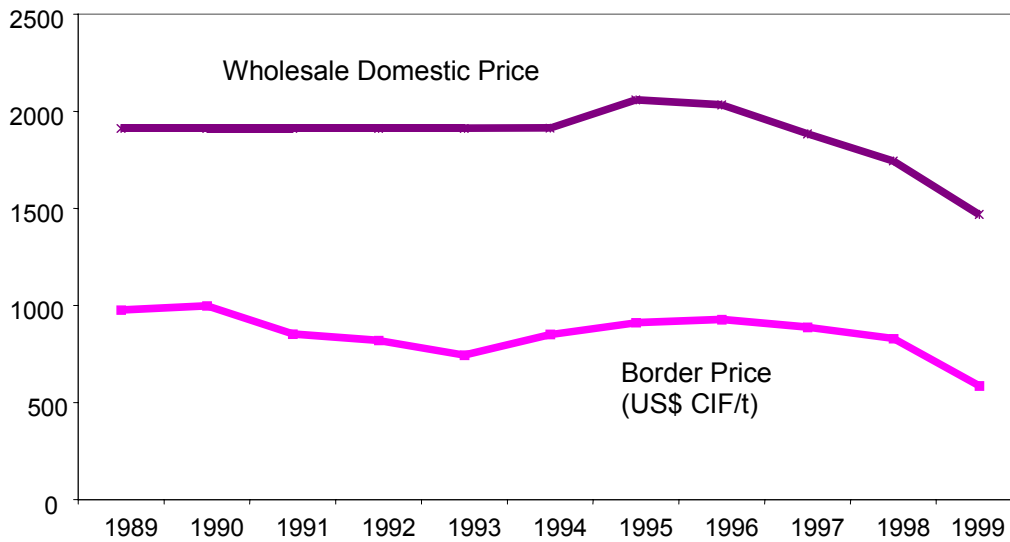


Figure II. Colombia, Chicken Meat Prices, 1989-99 (US\$ per t)



Source: Revista Coyuntura Colombiana