



Universidad Nacional de Mar del Plata



Facultad de Ciencias Económicas y Sociales

***"Argentina's Organic Sector: Issues Faced by Producers
and Consumers"***

Elsa M. Rodríguez
e-mail: emrodri@mdp.edu.ar

July, 2008

***Paper to be presented to Seminar of Federal Institute of Agricultural Economics, Vienna.
Austria August 21th, 2008***

Introduction

This report presents the main results of a national project carried out during 2002-2005 entitled “The domestic and foreign potential markets of organic products in Argentina” and of other research project focused mainly on the demand.

The general objectives of this work are to evaluate the marketing process of organic products and to analyze the perspectives of these markets with special attention given to the domestic market in Argentina.

Key factors such as very good agro-ecological conditions in Argentina, intensive labor requirements and increasing export perspectives for these differentiated foods, turn organic production into an attractive activity for farmers, distributors and retailers, improving the development of our regional economies. In mid-1992, Argentina was included in the equivalence list of third countries of the European Commission and after verifying the inspection system and production rules for organic farming, our country was officially included on 26th March 1996. Through the *Servicio Nacional de Sanidad y Calidad Agroalimentaria* (SENASA) (National Health and Agro Foodstuff Quality Service) a number of private certification agencies are approved and supervised by SENASA. At the same time, important public research activities are carried out by the *Instituto Nacional de Tecnología Agropecuaria* (INTA) (National Institute of Agricultural Technology) and by both, state and privately owned -Universities. Despite all of these efforts, our main concern is about the reliable information of market data, which limits the quantitative evaluation of supply and demand and restricts the analysis of potential market growth for organics.

The results are analyzed considering three main aspects: Argentinean international market access, production and marketing issues faced by producers located in the different regions and the willingness to consume organic food in our domestic market.

With this in mind, the following topics are addressed in this document:

- a) International market access: Analysis of the role played by Argentina in organic production and foreign market access, as well as the producers, traders and exporters knowledge about domestic and international market access opportunities.
- b) The farmer’s behavior in the different regions related to land and labor use, land-tenure, marketing decisions and cooperative relationships among farmers.
- c) The organic certification costs and certification process difficulties faced by farmers, located in the different regions of the country.

d) The degree of consumer information about organic foods, their purchasing decisions and willingness to pay for organic food in the domestic market.

The information source:

- Interviews to governmental marketing agencies, inspection bodies, research institutes and Non-Governmental Organizations (NGOs).
- Farmers and consumers surveys in the main productive regions and consumption centers.
- Active participation in workshops held by organic farmers' organizations and academic meetings.

Whilst data on organic areas and on organic livestock is systematically collected by an inspection body, other relevant data related to the amount of organic sales, domestic and export prices were almost nonexistent in Argentina, therefore substantial data was surveyed by the research team, through a nationwide field work.

Main results and conclusions

1. Argentinean role in the international market

Through certification systems, organic food guarantees that during the production process synthetic agrochemicals and genetically modified organisms have not been used nor has the livestock gone through any suffering. The Organic Global Market–Europe, the United States, Canada and Japan - has tripled in value reaching 40 billion dollars in 2006 (Helga Willer-Yussefi, 2007). Organic sales in the United States reached 14 billion dollars in 2005; it represents 2.5% of the total food sales in the United States and 45% of organic global sales (OTA, 2006). The American imports exceed exports 8 to 1 (USDA-FAS 2005).

Nearly 31 million hectares worldwide are currently certified according to organic standards. Argentina is in 3rd. place with 2.2 million hectares after Australia (12.3 million hectares) and China (2.3 million hectares) followed by USA (1.6), Italy (1.1) Uruguay (930,000) and Brazil (880,000). (FIBL Survey 2008)

Argentina, Uruguay and Dominican Republic are the Latin American countries with the highest proportion of organic land (in percent of total agricultural area: 1.7; 6.1 and 1.3 respectively) (FIBL Survey 2008). Chile and Brazil are also showing increasing rates of growth in the last years. The area exclusively used for organic production presents significant increases (> 1000%) in China, Bolivia, Chile, and Uruguay in 2002-2006; all of these countries have USDA certification services (NOP)

Marketing of certified organic products

The main destination of our agricultural production has been the foreign market (48,800mt. in 2002, 49,800mt. in 2003 and 46,800mt. in 2004). 67,200mt. (2005) – 95,000mt. (2006), reaching 122,000 mt in 2007.

The European Union imports 31 percent of cereals, 77% Olives, 76% fruits, 95% of vegetables and legumes and 62% industrialized organic products (sugar cane and wine).

The domestic market demanded 2,200mt in 2002; 1,178mt. in 2003; 1,492 mt. in 2004, and 320mt in 2007. The highest volumes of commercial exports are cereals (corn and wheat), oils and soybean. In second place are fruits (apples and pears) and industrialized products such as sugar; wines and vegetables (garlic, onions) and pulses. Cereals and oils are the most important products in the domestic market due to their high volume, and vegetables and pulses are also important because of their diversity. During 2007, **apples and pears have shown the highest rates of increase, followed by industrialized products such as orange juice and raisins.** Sheep meat and dirty wool exports also increased in 2007 (383 mt) and its main destination was Spain.

Other processed organic products such as olive oil, sugar, concentrated juices, honey and wine, which in spite of their low volume are also attractive exports alternatives. The European Union imports 80% of the Argentinean organic products; the rest is sold to the United States and Switzerland.

In Argentina, key factors such as very good agro-ecological conditions, intensive labor requirements and increasing export perspectives for these differentiated foods, could transform organic production into a profitable activity for organic farming organizations, processors, wholesalers, and retailers, thereby improving the development of our regional economies.

Argentina is the only country in the Southern Cone that is included in the equivalence list of third countries of the European Commission and, in general, its regulations are equivalent to the European Commission. At the present time, Organic legislation is implemented in Argentina, Bolivia y Chile. Other countries, like Uruguay and Paraguay, have some other certification systems of organic quality and also some participative systems (producers, consumers, processors, ecologists, NGO etc.) of organic quality certification for marketing organics at the national level. Brazil has three organic systems for the domestic market (national certification, participative system and

no certification (NGO). At this moment, there are important factions of the Organic Movement in these countries that find that organic food systems should focus on local markets to assure food security with organic products and with ecological justice.

The main destination of Argentine organic production is abroad and the volume exported has increased during the last 10 years. In 2007, 98% of the Argentinean total organic production was destined to the foreign market. The domestic market accounted for as little as 2% (SENASA, 2008). The largest marketing export volumes are grains: bread wheat, rice and maize, oilseeds and fresh fruits. Other processed organic products such as olive oil, sugar cane, concentrated juices, honey and wines, which notwithstanding their low production volumes, are also attractive export alternatives. The European Union imports around 80% of Argentinean organic products; the remaining 20% is exported to the United States and Switzerland. Cereals and oils are also central products in the domestic market due to their high volume, and vegetables are also increasing their share of the domestic market.

The organic sector in Argentina has grown thanks to its own efforts. No direct governmental subsidies or economic aid is provided to this sector. Some public funding for research and teaching activities are available, and other export agencies promote the development of organic products in world markets and help producers attend fairs and exhibitions.

Along these lines, the National Institute of Agricultural Technology (INTA) is implementing important public research activities for developing new technology and providing training to farmers. The National Agricultural, Livestock, Fishing and Foodstuff Office, (SAGPYA) (*Secretaria de Agricultura, Ganaderia, Pesca y Alimentación*) has implemented the National Program for the Development of Organic Production (PRONAO). This program is financially supported by the Inter American Development Bank (IDB) and aims to promote organic products domestically, increasing the number of producers committed to this activity, developing new markets, and creating well-informed consumers.

2. Production and marketing analysis

The total area under organic control has been decreasing during the last 6 years (3,200,000 ha in 2000 2,400,000 ha in 2004, 2,800,000 ha in 2005 and 2,600,000 in 2006). This surface decrease is mainly caused by the reduction of certified livestock production areas until 2007. At present the organic area is 2.9 million hectares. The certified agricultural area accounts for 234,000ha. The main portion of the ecological

area in Argentina is located in the south of the country (Santa Cruz and Chubut Provinces) because of the sheep production. The third most important area under control is located in the Buenos Aires Province (SENASA 2004). Currently, there are 1,578 organic farms in our country with a total average farm size of 2,249 hectares. The main concentration is in Misiones Province (30%) with a high number of small producers (average size of 48ha) of sugarcane, tea and yerba mate (local tea). Buenos Aires and Mendoza follow with 10% and 14% each and an average size of 1,200ha and 70ha respectively. More than 40% of the harvest area is located in the Buenos Aires Province (24,000 hectares) but also Mendoza and Entre Rios have increased this area for harvesting purposes, Mendoza producing grapes and fruits, and Entre Rios obtaining cereals and oilseeds (Table 2).

The countrywide survey conducted between November-December 2004 and January-April 2005 revealed 121 organic farmers, covering a land area under organic management of 132,025ha. Out of these, 117,129ha are certified and 14,896ha are organic in transition stage. These farms are mainly located in the Pampeana Region, Cuyo and Patagonia¹ and some of them in the north-east and north-west of the country. The average sample farm size is 1,085 ha certified and 784 ha in transition, but there is a high variability among regions; Patagonia and Pampeana have an average certified area of 2,140 ha and 1,410 ha each, Cuyo has 35ha and the north-east and north-west 45ha.

These farms diversify their production in varied organic products, but the ones in the Pampeana Region mainly produce cereals and oilseeds. Cuyo and Patagonia are more specialized in fruits and the northern regions are more dedicated to the production of industrial products such as dried fruits and aromatics, including other products detailed below². Cuyo producers mainly sell a broad range of organic products to the domestic market, and receive strong government support (Fundación Pro Mendoza). Those located in Patagonia sell to both markets -domestic and foreign-. They specialize in fruits and sell under long terms payment conditions.

¹ Pampeana: Buenos Aires, Córdoba, Entre Ríos, La Pampa, San Luis y Santa Fe: 48 farms. – Cuyo: San Juan y Mendoza: 35 farms.

Patagónica: Chubut, Neuquén, Río Negro, Santa Cruz, Tierra del Fuego: 31 farms.

North-east: Corrientes, Chaco, Formosa, Misiones: 5 farms – North-west: Catamarca, Jujuy, La Rioja, Salta, Santiago del Estero y Tucumán: 2 farms.

² Cereals and oilseeds, vegetables and pulses, fresh fruits and fine fruits, Animal Products : honey, milk, cheese, eggs, wool and other products: Industrial products (sugar, olive), dried fruits, aromatics, oil, wine, jams, delicatessen)

The predominant land-tenure is the owner (94% of farmers); only 3% of the sampled farmers manage the organic activity as a land renter. They have a high school or university level education, and their average age is 49 years old. . For many years, most of them (75%) were dedicated to conventional production, before producing organics.

A relatively high proportion hire laborers, paying a salary (63%), 31% employ family labor and 40% also do it in seasonal activities.

Considering the organic evolution over the last five years, 38% of producers maintain the organic area constant; 37% of them have increased it and the rest (25%) has decreased it. This drop has been due to technical problems, sanitary control issues, climatic factors, high production costs and troubles in marketing organic products.

The domestic market was the main product destination for selling the products at a farm (55%). Only 17% of producers sell it to the international market and 18% sell the production to both markets. Those who export are mainly producing fresh fruits-apple, pear, citrus-, cereals, oilseeds and animal products (lamb, honey, milk, cheese, wool). In 54% of the cases farmers are selling the products without previous contract arrangements. Only 31% sell under contract arrangements. The length of payment terms vary from 7 to 30 days, and it is even longer under export conditions.

This information at the level of the producer should be analyzed in more detail to research the lack of incentives in making contractual arrangements; the relationship of trading; the farmers' bargaining skills and contract conditions. These selling modalities are closely related to farmer risk attitudes, and the high uncertainty about selling the product in different markets results in high price variability.

Farmer's integrating experiences

A high percentage of organic producers are associated with other producers (86%). The activities that have priority are training (50%), achieving scale/good price (48%), certification (44%) and improving technology (41%).

Although they seem to be satisfied with these sorts of integration (78%), these are not done in a formal way (45%). The remaining 55% are formally set up as associations and chambers. Only 4% are organized under a cooperative and another 4% as an export partnership or consortium. These associations have been chosen under their own initiative (70%) without any local government support. Also 20% was encouraged by INTA.

Certification body: costs and procedures

The certification costs are considered high for the 55% of organic producers, 37% believe that they are reasonable. A high percentage (46%) also considers them to be bureaucratic procedures. According to Patagonia producers' opinions, certification costs are higher than for the rest of the producers. In this case the traveling costs and living expenses of the certifying agents are higher because they are located in Buenos Aires and need to cover long distances to control the southern production areas (2000 km).

The farmers suggested improving the certification process by reducing its costs and the bureaucratic procedure – farmers are requested to complete many forms -. They also pointed out the need: 1) To obtain more information from certifying agencies; 2) To have local or regional certification agencies with more knowledge about production systems and crop production cycles in the different regions; 3) To simplify the control system of the certification process; 4) To train the certifying agents in order to comply with the regular controls more severely.

They also suggested having some financial support during the conversion period in order to afford the certification costs and they also considered it important to have professional advice to solve production and certification problems. The public organism SENASA that has the responsibility to register and control certification agencies should have qualified and trained technical agents to carry out these tasks. Also it would be desirable to account for two certification levels, one for the international market and the other for the domestic one.

It is important to have good mechanisms to achieve general consensus about the certifying and regulating body. To improve private and public sector relationships it is very important to perform a joint long term organic project in Argentina.

The problems faced by organic producers are related to post-harvest technologies in cereals, vegetables and citrus products; and product design-packaging for meats and industrialized products. Also the main organic development restrictions are related to the economic, political and social context in Argentina, but we should admit that the same happens with conventional production.

The main producers' issues are related to export transport logistics, especially for small farmers, who frequently have problems such as access to credit, higher cost for storage and high values of design. Therefore, the availability of low interest rates and reasonable refunding terms become crucial conditions for these farmers.

3. The efficiency of public Organic policies

A number of private organizations are playing an active role in grouping organic farmers, certifiers and trade enterprises in Argentina. The *Movimiento Argentino para la Producción Orgánica* (MAPO) (Argentinean Group for the Organic Production) includes almost 1,600 farmers; the Trade Chamber, the *Cámara Argentina de Productores Orgánicos Certificados* (CAPOC) (*Argentinean Chamber of Certified Organic Producers*) created in 1998, account for thirty groups of enterprises. There is a more recent Certifying Chamber (CACERT), created in 2000. All of them are working closely with each other, and as a link with the public sector. It is important to mention the *Asociación de Productores Orgánicos Valle Ecológico* (APOVE) working with more than 20 small farmers in San Marcos Sierras, Córdoba.³ This association is working on an Organic Strategic Development Plan for that Region. The Small Farmers' Plans in Argentina are weak and they are not receiving assistance except those closely engaged to INTA's PROHuerta program.

The policies applied to the organic sector are not efficient because of the budget restrictions. The current system provides for more resources to those enterprises and actors already inserted in the global economic system and do not contribute to include the small land holders who are isolated and without any possibility of sharing in the economic and social benefits.

To reduce the asymmetric distribution of benefits it is necessary to include the small farms through regional development programs. The potential growth of the domestic market should be encouraged as a previous step towards foreign markets. The efficiency of any government action should be focused towards a more strict control system, a better coordination between public and private organizations, a more active participation in defining priorities, and different long terms projects to achieve sustainable organic sector development.

4. Domestic market, consumer profile and marketing channels for organic products in Argentina

In the Argentinean domestic market, many consumers are willing to pay higher prices for healthy products, i.e. organics, because they increase their utility level by reducing perceived health risks. Information about quality attributes of food products, i.e., safety attributes, convenience, place and manner of product production, environmental concern, is imperfect for consumers, producers, government regulators and researchers.

³ San Marcos Sierras (100.000 Ha valley) and also El Bolsón (located in Patagonia) are stated as free GMO zones since 2003 and 2004, respectively.

This is particularly true when production process attributes cannot be readily observed or tested, and the product's effects on health are difficult to determine once it has been consumed (Antle, 1999a).

The main restrictions to domestic demand growth are the lack of information available to consumers, organic prices over those of conventional foods, and the erratic supply to the domestic market, since the organic products' main target is the foreign market. Besides, many consumers do not trust the certification proceedings carried out by private certification agencies (Rodríguez, 2005).

The demand for foods depends not only on the socioeconomic characteristics of population but also on product quality variables. These attributes of quality -nutritional content, safety attributes of food, convenience, where and how the product has been produced, including environmental of the production process- are all of them valued according to the consumer's subjective perception.

Some consumers are willing to pay a higher price for healthy products, because they will increase their utility level reducing health risks. Although the participation of these "safe products" in the food consumption budget is still small, they are considered a niche of market with a great potential growth due to the increasing consumer interest for organics or ecological food in many industrialized countries during the past ten years.

The latter consumption study performed in Buenos Aires city,⁴ Argentina, concluded that Argentineans are worried about healthy and nutritive food, unsafe productive processes and health care, which are key factors to organics consumption. Yet consumers are unaware of environmental issues. Taste and nutritive attributes are other relevant factors mentioned as well (Rodríguez et al., 2005). Results from focus groups studies conducted in four different Argentinean cities (Buenos Aires, Mar del Plata, Mendoza and Córdoba) demonstrated that consumers do not trust organic certification bodies, and they recognize the lack of information available in the domestic market regarding organic food.⁵ They usually link organics with local, homemade and handmade food, and, therefore organic producers and retailers constitute important credibility sources (Rodríguez & Lacaze, 2005).

⁴ Buenos Aires, the capital city of the Republic of Argentina, is the most densely populated city and also concentrates most trading activity in the country.

⁵ To conduct the focus group studies (2003, 2004 and 2005), the referred cities were chosen not only for sharing consumption patterns, but also for being near production regions.

The data in this study was derived from a food consumption survey conducted in Buenos Aires city, Argentina, in April 2005, by applying a semi-structured questionnaire. 301 surveys were completed by trained interviewers who intercepted respondents in the largest supermarket chains and also in an important specialized organic store.⁶ The sample was based on age and gender local distribution pursuant to the last National Population Census in Argentina (INDEC, 2001), for respondents aged 18 or above with a medium-high socio-economic level.⁷ Respondents were surveyed upon leaving the stores.

Table 3 provides the representativeness of the sample in terms of the demographic structure of Buenos Aires city population according to gender and age.

The survey sample yields a higher female proportion as may be expected since grocery shopping is mostly a female activity (Baker, 1999; Chen *et al.*, 2002).

A convenience sample was selected and applied due to the difficulty to spot the target population, i.e., individuals who usually (or frequently) shop organic foods (or did in the past). In this type of convenience samples, the probability of being selected is unknown. But with a theory-based model and using relatively balanced explanatory variables, a convenience sample could be used to obtain model-based inferences. (Brewer, 1999; Chow, 2002; Schonlau *et al.*, 2002).

Consumers' perception about food quality attributes

According to perceptions, 67% of the 261 respondents were worried about their health, 79% take care in meals, 57% perceived the high risk of hormones and pesticides in food content. Food nutritional content as a quality attribute was mentioned by a 56%. A relative high percentage (64%) did not mention production method as a food quality attribute; and a 62% did not mention the product origin as a quality attribute.

The questions related to consumers' perceptions about information demonstrated that 91% of the respondents are used to reading labels before or during their purchase. 53 percent feels satisfied with the information provided by the labels; and 53% would be willing to buy organics were they cheaper⁸. 75 percent of consumers agree to the need of a food quality regulation system and a 56% considers the food control system inefficient. The question about whether regulations should be private and not public

⁶ Supermarket chains: Coto, Disco, Jumbo, Norte and Wall Mart. Specialised organic store: La Esquina de las Flores.

⁷ As defined by the Argentine Marketing Association (AAM). [Available online]
URL: <http://www.aam-ar.com>

⁸ The gap between conventional and organic prices was analysed by collecting prices data at the same stores where the survey was conducted.

did not show a significant difference (49% said “yes” (it should be private), 51% said “no” (it should not be private)). The principal sales channels selected by organic consumers in Argentina are 1) Specialized stores dedicated to sell organic products. They offer a wide range of products except fruits and vegetables; 2) Supermarkets: This channel offers a narrow range of products and 3) Direct sales: Through this channel, farmers located in the production area, sell fresh fruit and vegetables, poultry products and eggs directly to consumers; Direct sales from producers attracted relatively more consumers buying organic chicken, vegetables and fruits. (Figure 3 and 4)

Argentinean Organic Price Premiums Trends (2002-2005)

According to a European Union Report,⁹ organic price premiums are lower for processed products (e.g. Whole Wheat Flour and Regular Milk) than for unprocessed products (e.g. Fresh Chicken and Leafy Vegetables). Table 4 shows that such same trend replicated in Argentina, when analyzing the organic price premiums prevailing in the domestic market when this study was carried out.¹⁰ For comparative purposes, the organic price premiums calculated in a previous study, also conducted in Buenos Aires city in 2002, were included too (Rodríguez et al., 2003).

Regarding the selected products, the market price premiums vary from 6% to 298%. While in 2002 organic Regular Milk was cheaper than conventional milk, in 2005 the opposite occurred with a 13% price premium. This could be explained by the steady increase of dairy products prices since 2003. The same applies to organic Leafy Vegetables and Aromatic Herbs, which registered sharp rises in 2005 (84.54% and 298.33% respectively). On the other hand, the organic price premium for Whole Wheat Flour decreased when comparing 2005 to 2002.

Since the devaluation of the Argentinean peso in 2002, the prices of both conventional and organic food products have increased. This has led to changes in the organic vs. conventional price relations.

Taking into account that Argentinean organic production has foreign markets as its main destination, the domestic prices of tradable goods rise in the country as export prices do. In this sense, the case of organic Aromatic Herbs and conventional Whole Wheat Flour are good illustrative examples.

⁹ Commission Européenne G2 EW – JK D 2005 Report.

¹⁰ Premiums calculated based on real prices of both organic and conventional selected products and collected in the stores where the survey took place.

As in the rest of the world, organic products consumption in Argentina is explained, to a large extent, by their better quality -in terms of packaging, nutritional benefits and nutritional information-, their market availability -especially for their continuity and variety of supply available-, and by the degree of credibility of the standards applied and certification systems. Yet, these products prices as well as the purchasing power consumers have are also central explanatory factors.

The results of this work were obtained for the main consumption and domestic distribution centre, Buenos Aires city, where the highest absolute and relative income levels are evidenced. They suggest that most Buenos Aires' citizens with particular lifestyles, an upper or middle income, working long hours and doing their purchases mainly in supermarket chains (Rodríguez *et al.*, 2005) are worried about health and eat healthy food. A high percentage (91%) of consumers are used to reading labels before or during purchasing, 56% consider the nutritional content as a food quality attribute and 53% consider that the label information satisfies their doubts about food contents, particularly in the most important food groups (meat, dairy products, flours and cereals) included in the Argentine diet.

Although 75% agree that a food quality regulation is essential, 56% consider that the food control system is inefficient. According to the logit model estimation, the **REGULATION** variable plays an important role in explaining organic consumption. Argentineans seem to be "Europeanized" in so far as they place no trust in the regulatory system's ability to monitor and to assure food safety.

The empirical results yielded by a logit model also suggest that the consumers with higher educational level, who eat healthy food, and consider food control organisms 'inefficient' are more likely to buy organic products. According to these results, educated people seem to be more exposed to diet and health information, and can better understand and process it.

These consumers know what organics stands for, they perceive products scarcity and irregular availability in the market, and they would be willing to increase consumptions if these products were cheaper. The price premiums in the market depend on the product type but, regarding the scrutinised products, they range between 6% and 300%. Taking into consideration that one of the final aims of every food policy should be consumers' health, the high premiums of effective prices question or, at least, condition the purchase of these healthy products, even when an important population sector expresses

its true desire to acquire them. Undoubtedly, organic prices constitute a very important constraint to organic consumption in the domestic market.

A high percentage of consumers read and trust label information in Argentina, which has interesting policy implications in relation to food labeling policies to promote differentiated and high value products, and to reduce information asymmetries in process attributes, such as organic, for consumers living in large urban areas. In Argentina, consumers' values or quality perceptions seem to be much better predictors of their behaviour than gender and age.

The involvement of general food retailers in the organic food market is of major importance and should be encouraged in order to increase organic products market share. Therefore, an increase in production levels is a must together with reductions in production, processing and/or trading costs, which, in turn, translate into sale price reductions, and into an increase of organic products consumption. Lower distribution costs constitute a contributing factor, which reduce consumer price premiums by involving general food retailers. The main restrictions to domestic demand growth are the lack of information available to consumers, organic prices over those of conventional foods, and the erratic supply to the domestic market, since the organic products' main target is the foreign market. Besides, many consumers do not trust the certification proceedings carried out by private certification agencies (Rodríguez, 2005). Most countries with lower consumer price premiums have a common national label, and such label recognition by consumers is usually high. Clear recognition is a pre-requisite if organic products are to break free from niche product status. This is another key issue Argentina still has to sort out if it wishes to expand in the organic domestic market.

As mentioned in other studies, pull strategies should be applied to promote organic market growth. To do so, the organic market actors must convince themselves that there is a growing consumer demand for organic food and that any efforts they make to increase the supply of organic products will enhance their competitiveness.

Argentinean current system devotes most of its resources to those enterprises and actors already inserted in the global economic system, and do not contribute to smallholders' farms inclusion through regional development programs, thereby strengthening the asymmetric distribution of benefits. The potential growth of the domestic market should be encouraged as a step towards targeting foreign markets. (Rodríguez, 2005)

Given that scenario, the government goal should be to support already operating markets, assuring an equal development of both supply and demand. As consumers

claim, research, consumer food education and counselling programs should be further supported. In Argentina, efficient government actions need be directed towards a stricter control system; a better coordination between public and private organizations and a long-term planning for the organic sector.

Some key points for future research

We consider that there are important issues that should be addressed in future research to take advantage of Argentinean Organic opportunities:

➤ *The organic data is limited and unreliable to quantify the real size of the organic sector.*

➤ *There are no systematic surveys of volume and value of marketing organic products in the domestic and foreign markets. The information is surveyed and comes from the certification agencies, which are not compelled to report their data.*

➤ *There is a lack of data on crop yields, therefore it is difficult to make comparisons between conventional and organic production costs and to estimate margins in different regions. This fact also restricts the possibilities of estimating supply and price forecasts.*

➤ *Due to the trade-offs between conventional and organic production in Argentina, it is also crucial to have information about organic price and conventional price relationships to analyze selling decisions and to evaluate how it affects the international demand.*

➤ *To evaluate the efficiency of choosing different selling options and marketing channels it is necessary to estimate margins on different levels in domestic and foreign markets.*

➤ *The certification costs and procedures are affecting producers located in the different regions. They seem to be highly affected by the distance of the certification agencies from production areas. Producers are demanding government support to afford these costs.*

➤ *Consumers are not confident with certification procedures (neither public or private). This lack of confidence reinforces asymmetric information problems between producers and consumers. Because of this, producers do not obtain the premium price they need to, to cover certification costs in the domestic markets.*

➤ *Different quality prices for differentiated foods are generating conflicts of interest between farmers and processors. On the one hand, the wholesalers-processor, retailers and marketing agents seems to be worried about the international quality requirements. On the other hand, farmers are more concerned about the production problems affecting volume and production quality, like climatic and sanitary control issues and GMO contamination*

production areas. It should be a government challenge to conciliate those positions, in order to be integration alternatives successfully encouraged.

REFERENCES

Antle, J. (1999): "The new Economics of Agriculture". American Journal of Agricultural Economics. Proceedings. Vol. 81. Issue 5.

FAS (2001) "*Organic Perspectives, May 2001*". Foreign Agricultural Service. Horticultural & Tropical Product Division. <http://www.fas.usda.gov/http/organics/2001/may01.htm>

IFOAM "*The World of Organic Agriculture. Statistics and Emerging Trends 2005*" Helga Willer y Minou Youssefi (eds). International Federation of Organic Agriculture Movements and Research Institute of Organic Agriculture (FiBL). ISBN:3-934055-51-6, 3-906081-64-8. www.ifoam.org

Willer, Helga, Minou Youssefi-Menzler and Neil Sorensen (Eds.) (2008) *The World of Organic Agriculture. Statistics and Emerging Trends 2008* International Federation of Organic Agriculture Movements (IFOAM) Bonn, Germany and Research Institute of Organic Agriculture (FiBL), Frick, Switzerland ISBN IFOAM 978-3-934055-99-5 ISBN FiBL 978-3-03736-014-9

Rodríguez E. (2006): "El mercado de alimentos orgánicos. Producción y consumo de los principales productos argentinos". Elsa Rodríguez (Compilador), Editorial EUDEM- Facultad de Ciencias Económicas y Sociales-Universidad Nacional de Mar del Plata, Mar del Plata-República Argentina, 2006. ISBN-10: 987-544-195-3 e ISBN-13: 978-987-544-195-3.

Rodríguez, E. (2005). The domestic and foreign markets of organic products in Argentina. Executive Summary presented to the International Workshop "How can the poor benefit from the growing markets for high value agricultural products?", CIAT, Cali, Colombia, October 2005.

Rodríguez E. & Lacaze V. (2005). Consumer preferences for organic food in Argentina. Handbook of the 15th Organic World Congress of the International Federation of Organic Agricultural Movements (IFOAM), September 20-23, Adelaide, South Australia, Australia.

Rodríguez, E.; Lupín, B. & Lacaze, V. (2006). Consumers perceptions about food quality attributes and their incidence in Argentinean organic choices. Poster paper presented at the International Association of Agricultural Economists Conference, Gold Coast, Australia, August 12-18, 2006. [Available from the author]

URL: http://agecon.lib.umn.edu/cgi-bin/pdf_view.pl?paperid=22222&ftype=.pdf

Rodríguez, E.; Lupín, B (2005): "Algunas cuestiones relacionadas con la producción y el consumo de alimentos orgánicos en Argentina ": Trabajo presentado en el X Congreso de Economistas Agrarios de Chile, Temuco-Chile, Noviembre 2005

Rodríguez, E.; Lacaze, V, Lupin, B. (2007): "Willingness to pay for organic food in Argentina: Evidence from a consumer survey". Contributed Paper presentado en el 105th Seminar of the European Association of Agricultural Economists (EAAE) "International Marketing and International Trade of Quality Food Products", Bologna-Italy, March 2007.

<http://www.bean-quorum.net/EAAE/pdf/EAAE105_Paper067.pdf>

Rodríguez, E.; Lacaze, V, Lupin, B. (2008) "Contingent valuation of consumers' willingness to pay for organic food in Argentina" Contributed paper I XII Congress of the European Association of Agricultural Economists. 26-29 August, 2008-Ghent, Belgium. Aceptado

SENASA: "Situación de la producción Orgánica en Argentina". Buenos Aires, 2002 al 2008

Youssefi, Minou and Willer, Helga (Editors). "*The World of Organic Agriculture 2003. Statistics and Future Prospects*". www.ifoam.org 22/04/03

Tables and Figures

Table 1. Organic Land Growth (hectares)

Organic Land	Average 1995 – 1999	Average 2000 – 2004	2005	2006	2007
Agricultural (Harvest)	19,522	48,574	43,747	56,289	61,264
Livestock	356,975	2,665,232	2,296,123	2,164,000	2,543,186

FUENTE: SENASA (2008) – Situación de la Producción Orgánica en Argentina.

Figure 1. Growth in area designated for organic production

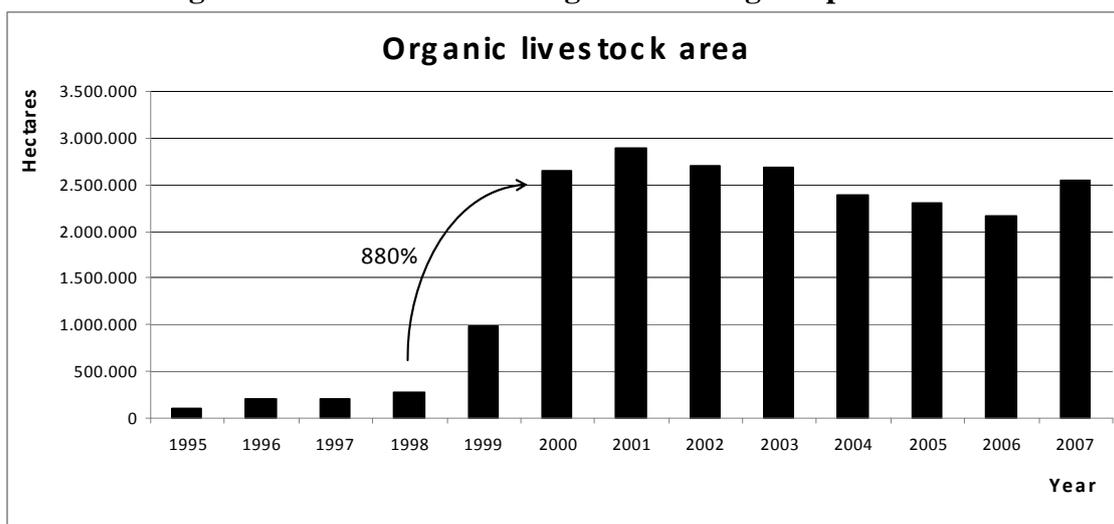


Figure 2. Growth in area designated for organic production

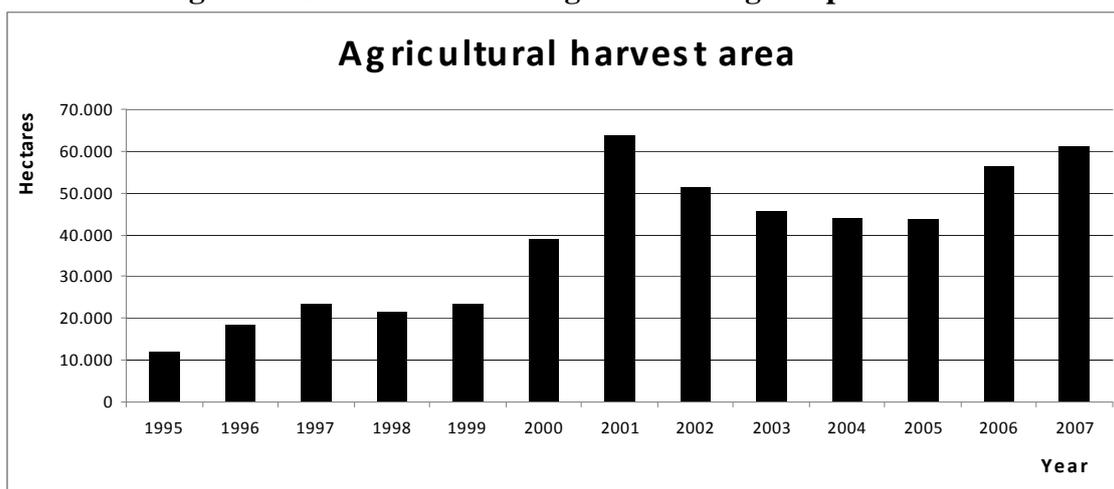


Table 2. Organic farms by Provinces in Argentina

	2003		2004		2005	
	Farmers	Average area (hectares)	Farmers	Average area (hectares)	Farmers	Average area (hectares)
Total	1,778	2,001	1,781	2,072	1,824	1,781
Buenos Aires	207	1,049	192	1,130	202	975
Catamarca	12	2,564	12	2,948	15	2,806
Córdoba	79	883	74	724	85	377
Corrientes	7	6,481	7	3,014	10	4,579
Chaco	10	9,568	59	3,500	58	4,570
Chubut	54	17,573	49	15,434	55	12,861
Entre Ríos	61	1,620	59	1,725	64	657
Formosa	1	24,834	1	2,750	2	18
Jujuy	32	1,496	39	1,163	35	1,261
La Pampa	27	3,507	26	3,847	32	3,463
La Rioja	21	2,153	23	2,176	23	1,332
Mendoza	369	293	336	525	329	419
Misiones	591	35	555	41	606	29
Neuquén	18	161	46	117	33	189
Rio Negro	100	1,299	113	1,756	83	1,703
Salta	14	3,277	22	3,435	19	2,663
San Juan	54	176	60	157	59	151
San Luis	41	3,915	44	3,277	38	3,688
Santa Cruz	27	42,932	18	70,042	21	54,977
Santa Fe	43	446	35	1,052	43	1,100
Sgo. Del Estero	4	5,063	4	5,063	4	1,040
Tierra del Fuego	2	38,500	3	47,153	3	47,445
Tucumán	4	2,195	4	2,187	5	1,737

	2006	2007		
	Farmers	Average area (hectares)	Farmers	Average area (hectares)
Total	1,486	2,049	1,578	2,249
Buenos Aires	146	1,237	165	1,206
Catamarca	16	3,326	15	3,171
Córdoba	86	423	81	596
Corrientes	14	2,783	15	4,248
Chaco	16	2,820	14	5,561
Chubut	56	15,611	63	18,125
Entre Ríos	56	949	57	1,024
Formosa	2	17	4	4,569
Jujuy	7	317	9	315
La Pampa	36	4,129	39	4,410
La Rioja	26	740	25	261
Mendoza	228	82	228	75
Misiones	473	51	472	48
Neuquén	46	91	63	70
Río Negro	106	1,057	149	1,395
Salta	19	3,730	20	3,624
San Juan	55	96	59	80
San Luis	26	7,202	28	1,714
Santa Cruz	16	59,619	8	121,241
Santa Fe	46	601	42	625
Sgo. Del Estero	2	310	6	587
Tierra del Fuego	3	47,112	5	51,063
Tucumán	5	2,212	11	834

Figure 3. Changes in retailers channel mentioned by consumers (2002-2005)

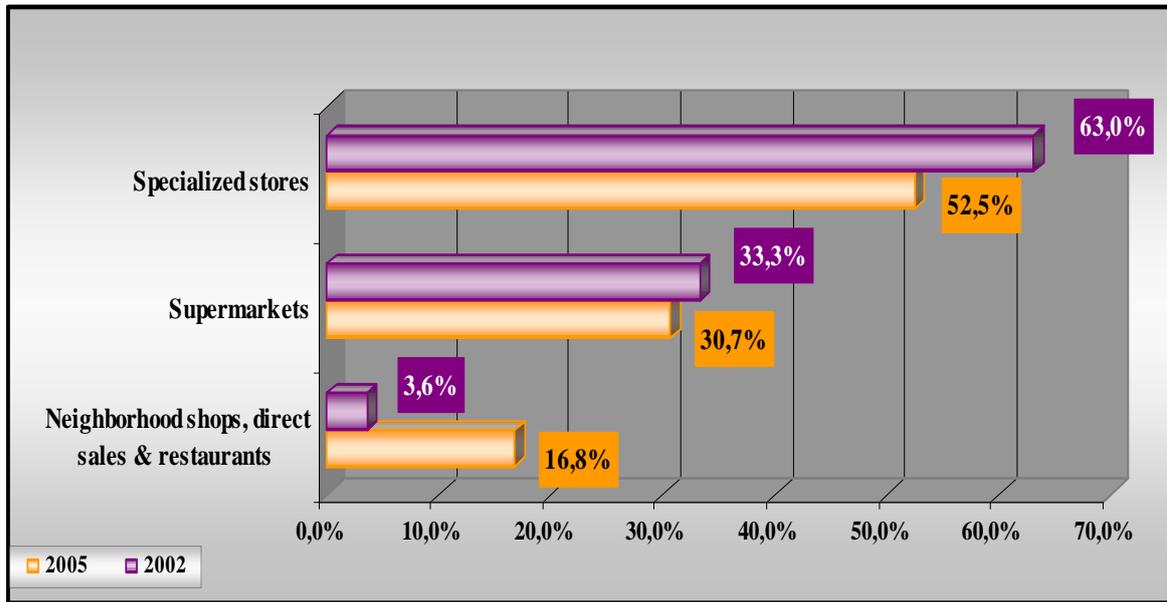


Figure 4. Changes in organic food mentioned by consumers (2002-2005)

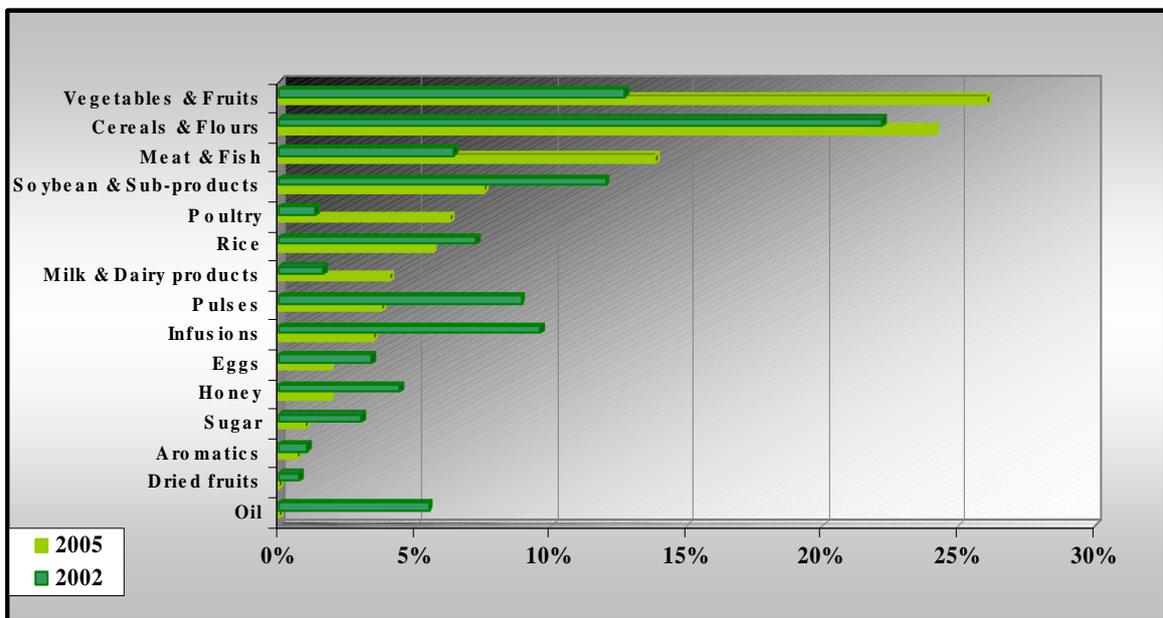


Table 3. Sample representativeness in terms of Buenos Aires city demographic structure according to gender and age (18-87 years old)

<i>Comparison between Survey Sample and Population Census in Buenos Aires City</i>			
<i>Demographic characteristics</i>	<i>Categories</i>	<i>Relative frequency</i>	
		<i>Representation in the survey sample</i>	<i>Representation in Buenos Aires City</i>
<i>Respondent's GENDER</i>	Male	32%	44%
	Female	68%	56%
<i>Respondent's AGE (in years)</i>	18-24	15%	14%
	25-34	19%	20%
	35- 49	26%	24%
	50-59	15%	15%
	60-87	25%	27%

<i>Proportion of Buenos Aires city population in relation to Argentinean overall population</i>			
	<i>Buenos Aires City</i>	<i>Argentina</i>	
<i>Population</i>	2,174,017	23,927,108	9%

Note: N = 301

Source: Consumption survey, Buenos Aires City/2005 and Population Census in Argentina (INDEC/2001).

Table 4. Organic Price Premiums Trends

<i>Organic over Conventional Products Average Price Premiums</i>				
<i>Selected Product</i>	<i>Description</i>	<i>2002 Price Premium ⁽²⁾</i>	<i>2005 Price Premium ⁽²⁾</i>	<i>2005-2002 Price Premium Change</i>
<i>Regular Milk</i>	Regular Milk	-0.61%	13.84%	↑
<i>Leafy Vegetables</i>	Fresh Leafy Vegetables: Chard, Green Onion, Parsley, Leeks, Cabbage, Rocket and Chicory Escarole	21.80%	84.54%	↑
	<i>Whole Wheat Flour</i>	Whole Wheat Flour	172.31%	5.91%
<i>Fresh Chicken</i>	Fresh Chicken	(1)	24.61%	(1)
<i>Aromatic Herbs</i>	Tarragon			
	Oregano Black Pepper	62.35%	298.33%	↑

Notes: (1) No data available because organic Fresh Chicken was unavailable in the domestic market in 2002. (2) Organic price premiums are expressed in %/kg or %/lt.

Source: Author's Calculation Consumption Survey, Buenos Aires City/2005 & Rodríguez *et al* (2003)