Which marketing condition makes organic products more accessible?  
A case study in Brazil

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Abstract
Concern over health and environmental and social problems generated by the production of conventional agricultural products, promotes expansion of the organic market. At the same time, it is necessary to understand how and under which conditions the market valorises local production, strengthening organic family farming. This study analyses the commercialisation of organic food production in Vitoria (Brazil), evaluating the diversity and prices of these products in different marketing channels, such as supermarkets, grocery stores and organic farmers markets. It also compares the price of organic products with conventional products in these establishments. The results demonstrated that organic farmers markets had the greatest product diversity, in addition to better prices. It concluded that this channel valorises organic family production, helping to empower producers and promoting access to healthy food for local consumers, meeting the goals of Organic 3.0.

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Introduction
The problems generated by the production and consumption of conventional agricultural products require alternative actions in the production, distribution and marketing of food and fibre, and must simultaneously consider all the dimensions involved - environmental, social and economic. In Brazil, organic agriculture is regulated by Law 10,831 of December 2003. Although organic conformity assessment systems already involve third-party certification, Participatory Guarantee Systems (PGS) and social control (Flores, 2015), it is still necessary to evaluate how marketing conditions valorise organic family farming and provide diverse, accessible and quality organic products, approximating organic production to the concept of food sovereignty (Wittman, 2011). Because experience and local strategies can serve as incentives to further action, the aim of this study was to evaluate the marketing conditions of organic products in Vitoria, in the State of Espirito Santo, Brazil.

Material and methods
The State of Espirito Santo in Brazil (ES) has a history of ecological agriculture, begun in the 80s and motivated mainly by health problems caused by exposure to agrotoxins. Currently, smallholder organic farms are characterised by a varied family production that is sold in eight organic farmers markets, mainly in the capital, Vitoria. These are street markets, organised by organic family producers from different rural regions, and that take place at different points of the city on various days of the week. This paper evaluated the marketing of organic products – diversity and price – in

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organic farmers markets, and compared their production to other markets of organic and non-organic products in the metropolitan region of the capital, Vitoria (ES). The data were collected every two months throughout 2014. The diversity of organic products was evaluated by the number of distinct products found in each of the following four categories of establishment analysed: supermarkets, grocery stores, organic farmers markets and agricultural fairs. Information on the prices of organic and non-organic products was collected directly from the following establishments: four supermarkets, one grocery store, three organic farmers markets and three nonorganic outdoor markets. The price of the organic and equivalent non-organic products was collected on the same day and in the same place for the supermarkets and grocery store. At the outdoor markets, the information corresponds to the closest dates and places, since organic and non-organic markets do not necessarily take place on the same day. With the supermarkets and organic farmers markets, the mean value of the cost per kilogram for each product at each establishment was calculated. A comparison of the price of organic products between these two categories of establishment was made using the percentage difference from the average price, similar to Santos (2014). In addition, the same described methodology compared the price of organic and nonorganic products within each of these establishments. Since organic farmers markets only sell organic products, their prices were compared to non-organic products from other outdoor markets.

Results

a- The diversity of organic products

The number of different organic products found in supermarkets, grocery stores and agricultural fairs was similar, but lower when compared to organic farmers markets, as can be seen in Figure 1. The greatest diversity of organic products was found at the organic farmers markets, that had over five times more products than the supermarkets. In addition, this wide variety of products reflects the diversification of the cropping systems on those organic family farms, increasing the resilience of the agroecosystems (Gliessman and Rosemeyer, 2009). This was evaluated by means of the certificates presented by the producers, where the products from each property were listed. In these documents, the number of different certified items from any single property ranged from 42 to 85.
b- The price of organic products

The study also analysed the price of twenty-three organic products in supermarkets and organic farmers markets.

All the organic products evaluated had higher prices in the supermarkets and grocery stores when compared to organic farmers markets. Comparing those establishments, the percentage difference between the prices for each product was calculated and the result shown in Figure 2. The highest and the lowest variations found were 325.4% (tomato) and 77.09% (chayote) respectively.

![Figure 2. Percentage difference between price of organic products from supermarkets and organic farmers markets in Vitoria, ES, Brazil.](image)

(c- The price of organic compared to non-organic products

The price of organic products was compared to the price of non-organic products in supermarkets and outdoor markets. Figure 3 shows the results of the percentage difference between prices found in supermarkets and grocery stores. Minimum and maximum values ranged from 3.37% (Okra) to 1109.46% (Potato) respectively. The average difference ranged from 56.212% (Okra) and 780.89% (Potato).

![Figure 3. Percentage difference between the price of organic and non-organic products from supermarkets in Vitoria, ES, Brazil.](image)
The price of organic products from farmers markets was compared to non-organic products from other outdoor markets. Both are street markets that take place once a week (on different days and indifferent places), however in the farmers markets, products are sold directly from the farmer to the consumer, whereas at the outdoor market there is usually a middleman. Figure 4 shows the percentage difference between prices from these two channels. The results show that organic products had higher (67.7%), lower (25.8%) or equal prices (6.5%) when compared to non-organic products. Also, even when organic products were more expensive than conventional products, the variation in percentage difference was substantially smaller than in supermarkets, ranging from 0 to 150%.

Figure 4. Percentage difference between the price of organic and non-organic products from organic farmers markets and other outdoors markets, in Vitoria, ES, Brazil.

Discussion
This study suggests that organic farmers markets enable consumers to have organic products that are more diverse and accessible, and occasionally cheaper than conventional products. This work reinforces the debate around the importance of diversified organic production in creating sustainable agri-food systems (Altieri, 2002). Moreover, short food-supply chains empower producers, as discussed by Lamine (2012), and contribute to food sovereignty as the right of local people to control their own food systems, including markets, ecological resources and modes of production. In order to increase consumers’ access to diversified organic products, Organic 3.0 must strengthen organic family farming and the local initiatives of farmers markets.

References