Development of the Organic Ornamentals Sector Worldwide

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Abstract

The paper describes different and mainly innovative ways of production and marketing of organic flowers, perennials and potted herbs by way of examples from all over the world. Organic production of ornamentals ranges from the cultivation in small nurseries with direct marketing to large scale production with online-marketing or the selling of bunches in supermarkets. All factors considered, it is evident that the pioneer phase of ornamental cultivation consistently changes to professionalism.

Introduction

The production of organic ornamentals (flowers, perennials, potted herbs) is still a very small part of the organic sector, but it is growing. For example in Germany, the sector grew from 115 hectares in 2004 to 175 hectares in 2006. Worldwide the main use of flowers is still in the cosmetic and medical sector. However, consumer awareness that flowers - especially edible flowers - should be organic is increasing. The ways of production and marketing all over the world are just as colourful as the organic ornamentals are. And some of them are quite promising.

Materials and methods

Data used for description of the situation in Germany were generated from the survey *Production of Organic Ornamentals in Germany – a Status Quo Analysis of the Industry* (Geschäftsstelle Bundesprogramm Ökologischer Landbau 2003). For other countries the information about the development on the organic flower sector was gained by internet-research and personal interviews with experts from federal offices, market organisations, advisory services and inspection bodies worldwide.

Results

Switzerland and Germany: Small scale nurseries and their cooperation

About 160 nurseries in Germany and 50 in Switzerland grow organic flowers, perennials or potted herbs. This corresponds to around 1 % of the total number of the nurseries producing ornamentals in these countries.

Many of the production problems have been solved in the last decade mainly by growers and very few advisors and researchers. In general, the quality of the products has proved to be as good as that of the products from conventional cultivation.

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Marketing is via farmers markets, flower shops or the farms' homepages. In Switzerland the growers are organized within the registered association *Schweizer Biogärtnereien* [Swiss Organic Nurseries] since 1996. Until now, in Germany no national organisation has been established.

About 100 leading growers in Germany are producing ornamental plants according to the standards of integrated production. In 2003, more than 30% of these growers considered organic production in the past but. for economic reasons, did not pursue this idea further. Nevertheless, during the past five years some of these gardeners became more seriously interested in organic growing. The *Anbaugemeinschaft Bio-Zierpflanzen* [Growers' Association for Organic Ornamentals] was founded in 2006 by some bigger conventional nurseries and some trials were carried out. In 2008 the German Federal Ministry of Food, Agriculture and Consumer Protection sponsors two industry discussions, involving producers, advisors, administrators and scientists, aiming to encourage the development of the organic ornamentals sector. In Switzerland a big supermarket chain started marketing some products of the organic ornamentals sector quite successfully which encouraged some conventional growers to convert to organic production. Unfortunately, there is almost no presence of organised research and advisory service. Nearly all innovations in the organic ornamentals sector are due to the initiatives of the growers.

USA and Ecuador: Eco-friendly flowers via the web

In the year 2001, *Organic Bouquet Inc.*, a new company with the goal to establish the national market for organic flowers, was founded in San Rafael, California. This was accomplished by encouraging both small and large flower growers to initiate organic production. At the same time, widespread trade and consumer awareness of the need for organic flowers came up. The main goal was to protect the environment and improve farm worker safety by eliminating the handling and application of millions of pounds of toxic pesticides in the chain.

In 2004, *Organic Bouquet* expanded its vision for a better and more sustainable chain by enlarging the product assortment with flowers grown under additional close-to-organic certification standards and labels. These include farming and harvesting methods such as *Veriflora* and wild picked flowers. The flowers sold by Organic Bouquet are grown mainly in South-America (Ecuador, Colombia), most of them labelled *Veriflora* (www.veriflora.com). This label indicates social and environmental friendly production but it's not organic. The seven main chapters of the standards cover *advanced agricultural practices, water resources management, ecosystem management and protection, management of wastes and hazardous materials, social responsibility, packaging materials and energy resource management, product quality, cold chain management and traceability*. In 2007 Organic Bouquet anticipated sales of more than 25 million stems of roses and flowers via the internet, natural food stores and upscale supermarkets, compared to 6 million in 2005. According to the Organic Trade Association, U.S. sales of organic flowers grew to $16 million in 2005, an estimated 50 percent growth compared to 2003.

One of the largest nurseries growing flowers for *Organic Bouquet* is the Ecuadorian farm *Nevado Roses*, owned by Roberto Nevado and his son John. In 2005 John Nevado was chosen by *The World Economic Forum* in Davos, Switzerland, to join their *Young Global Leaders Initiative* for his work in sustainable agriculture. Since January 1998, *NEVADO ECUADOR* produces best quality roses in two farms located at altitudes between 2750 and 2950 metres above sea level, and 140 kilometres South of Quito (Ecuador). At the moment, the farms continue their expansion to 40

hectares with 2.8 million rose plants in 36 varieties. The nursery itself is constructed as a closed eco-system, where most waste is recycled and the fertilization is accomplished with chicken droppings.

The Netherlands: Bunches and Bulbs

In the Netherlands in 1999 the wholesales organisation *Florganic* was founded through a joint venture between *Eosta B.V.* (Holland), market leader in organic grown fruit and vegetables, and *Intergreen B.V.* (Holland), leading supplier of flowers and plants to the major retail chains in Europe. The wholesale trader offers a wide range of products: tulips, potted daffodils, violets, dried bulbs, sunflowers, safari bouquets, chrysanthemums, spring- and summer bouquets. *Florganic* has customers both on a national and international level: supermarket chains, health food shops, flower wholesale trade, flower shops and cash & carries.

Furthermore, in 2004 the project *Bioflora* was started with the goal of promoting organic ornamentals. In line with this project the Internet-Wholesaler *Florient Express* started selling organic bouquets all over the Netherlands. One of the main customers is the Shell Group selling organic bouquets at its petrol stations.

The bulbs distributed by *Florganic* or *Florient Express* are grown by the members of the Dutch bulb growers' association *Biobol*. The association was founded in 1996 and has 15 members which are all registered and certified by the European and Dutch authorities. The offered collection consists of tested favourites, focused primarily on tulips and daffodils; also concerning other varieties, such as crocuses, snowdrops or grape hyacinths.

Georgia and Italy: Organic flowers for medicine and cosmetics

According to the Georgian *Biological Farming Association Elkana* currently 32 hectares of roses in Georgia are certified organic. Some of these rose-fields belong to the Georgian company *Kopala 1898*. The nursery was a rose cooperative during Soviet times. Now it grows scented roses using biodynamic methods and extracts the essential oil from the flowers. The German medicinal company *WALA Heilmittel GmbH* has contractually guaranteed to purchase the organic-quality Georgian rose oil and supports the expansion of the area used for rose growing from 20 hectares (end of 2005) to 80. Furthermore it has provided loans for the construction of a large distillator and the renovation of buildings.

Iris accumulates excess water in its rhizome or rootstalk, which lies above the ground and forms a layer of protection on its leaves and stems during dry periods. This protective mechanism is the reason why this key ingredient is used as the basis in the medicinal company *Weleda*'s Iris Facial Care Line. The Iris roots come from the farm *Ca' dei Fiori* in the Italian Apennine Mountains between Florence and Bologna. Since 1982 this farm cultivates Iris at an altitude of 800 meters above sea level with biodynamic methods and supplies *Weleda* with 1000-1500 kilos of Iris roots a year. Furthermore *Ca' dei Fiori* grows 62 species of herbs and flowers on 28 hectares of land in a sophisticated crop rotation.

Discussion

According to E.M. Rogers' model of innovation diffusion processes (Padel 2001) the exemplified growers of organic ornamentals can still be called 'Innovators': on average they are better educated, have less farming experience, have smaller farms, place less emphasis on profit maximization and may not be respected by other members of the social system. However, more and more 'Early Adopters' can be found among the growers: they are better integrated in the general growers' communities, they are often opinion leaders and they are in close contact with information sources.

Conclusions

The sector of organic ornamentals is increasingly gaining significance both in the 'world of organic agriculture' and in horticulture. The sector is slowly moving out of its niche of public perception and acceptance, which makes it easier for 'Early Adopters' and for the majority of conventional growers to consider conversion. The number of products with for which both, production and marketing are satisfactory is still small. When trying to expand the sector of organic ornamentals, government agencies and advisory services should consider the fact that 'Innovators' are mainly self-taught or learn with the support of other innovators, while those who convert at a later stage make more use of advice and research results.

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