

# Organic produce from the Republic of South Africa

Exploring the conditions for enhancing trade in organic vegetables, fruit and wine



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# Organic produce from the Republic of South Africa

Exploring the conditions for enhancing trade  
in organic vegetables, fruit and wine

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## **Organic produce from the Republic of South Africa; Exploring the conditions for enhancing trade in organic vegetables, fruit and wine**

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Conditions for enhancing the trade in organic products between the Netherlands and the Republic of South Africa were assessed by means of a SWOT analysis, based on information acquired through interviews and desk research. There is a large potential to enhance the trade in organic products between the two countries, although the following issues need to be addressed: the finalisation of the RSA legislation on organic production (which will enable large enough volumes to be produced and traded), skills development and the presence of an effective platform for organic production in the RSA.

Voorwaarden om handel in biologische producten tussen Nederland (NL) en de Zuid-Afrikaanse Republiek (ZAR) te vergroten zijn geanalyseerd door het uitvoeren van een SWOT analyse, gebaseerd op informatie uit interviews en literatuurstudie. Er is grote potentie om handel in biologische producten tussen ZAR en NL te vergroten hoewel het voltooiën van de Zuid-Afrikaanse wetgeving over biologische productie, het vergroten van geproduceerde en te verhandelen volumes, de ontwikkeling van vaardigheden en de aanwezigheid van een effectief platform voor biologische productie in ZAR belangrijke voorwaarden zijn.

### **Orders**

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# Preface

The market for organic food products in the Netherlands is growing; however, supply shortages are hampering the growth of the market. The policy of the Netherlands Ministry for Agriculture, Nature and Food Quality aims to encourage organic agriculture and to stimulate the growth in the market for organic products. The Republic of South Africa's location in the southern hemisphere gives it the advantage of being able to produce organic food products during the European winter season and, accordingly, to target the shortness in supply. This research identifies conditions for enhancing the trade between the Republic of South Africa and the Netherlands in a selection of organic food products. The conditions were identified during dialogues with Dutch and South African partners.

The substantive information obtained from the interviewees in the Netherlands and South Africa is acknowledged and greatly appreciated. The main authors of the study are Ms Yuca Waarts, Mr Johan Bakker (both from LEI Wageningen UR) and Joost Snels (AFSG Wageningen UR). They were supported by Ms Myrtille Danse (LEI Wageningen UR). The study benefited from comments made by the stakeholders in South Africa and the Netherlands, which include the Agricultural Councillor of the Netherlands Embassy in South Africa and Ms Chantal Baas from the Ministry of ANF (LNV, I&H). However, the authors remain responsible for the content of the report. Financial means for the study were provided from the DLO NAP budget 2008, administered under the BO Cluster International (BO&IO) research programme.



Prof. R.B.M. Huirne  
Director General LEI Wageningen UR

# Summary

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## *Introduction*

The market for organic food products in the Netherlands is growing; however, supply shortages are hampering the growth of the market. The Republic of South Africa (RSA) has the advantage of being able to produce organic food products during the European winter season, as it is located in the southern hemisphere. Sourcing organic products from the RSA could therefore ameliorate the current shortness of supply.

## *Research goal*

The aim of the research was to assess the conditions for enhancing the trade between the RSA and the Netherlands in four organic food product groups: vegetables, fruits/processed fruits, fruit juice, and wine. These product groups were chosen as they are already produced and traded between the Netherlands and the RSA. In addition, potential cross-seasonal trade opportunities for vegetables and some fruits may exist, enabling Dutch businesses to export to the RSA.

## *Research method*

The research was based on data collected during interviews with key stakeholders in the Netherlands and the RSA, and on data compiled through desk research and data analysis.

## *Results of the SWOT analysis*

Sufficient demand exists in the Netherlands for organic vegetables, fruit and wine, which can be sourced from the RSA. The RSA has a large potential to increase its export of vegetables, fruit and wine to the Netherlands, as climatic circumstances ensure a broad variety of products, and many producers are very determined to increase and diversify their activities. In addition, high quality standards and internationally accepted organic certification schemes are in place in the RSA. Supply chain logistics also adds to the potential of the RSA, as the logistics is well arranged.



One of the major issues to be addressed in order to enhance the trade in organic products is that of producing large enough volumes for processing and transporting for export purposes. These volumes can only be produced if more producers convert to organic farming and producers' team up to arrange combined processing and transportation. Smaller producers who currently produce non-certified organic products could also be certified, as this would increase exportable production volumes.

Cooperation amongst producers would benefit from having a platform that would function as a broker, a representative of the organic sector and a vehicle for knowledge transfer. Furthermore, data on organic production and trade could improve knowledge and stimulate effective partnerships. Developing the skills of producers with regard to organic production, organisation and export could also increase the volumes produced and exported. This could be supported through education, extension and capacity building.

Opportunities to enhance the trade in organic products between the RSA and the Netherlands are dominated by the volume issue. We have already seen that cooperation is the key to producing large enough volumes, but some options are not used at the moment, such as the combination of organic products from various producers in one container for export. Other opportunities for the further development of the organic sector are the import of knowledge of organic farming and other skills, the combination of Fairtrade and organic certification, and the communication of BEE activities to consumers as a marketing strategy. Finally, it seems that government funding is available for agricultural development in the RSA. Unfortunately, stakeholders do not seem use the funding because they are either unaware of it or do not believe that they can successfully access it.

The largest threat to organic production, and especially trade, is that there is no national organic legislation in place, although a draft of such legislation is being reviewed. Because of this, no watchdog monitors the organic sector, resulting in a situation where there can be room for interpretation with regard to the implementation of organic farming (especially for the local market). This may impact the image of organic standards in the RSA at the local level, and has potentially created a gap between compliance with local criteria and compliance with the international requirements. This would complicate compliance for local producers that are new to the export business. Fortunately, there are certifying bodies in the RSA that are linked to European certifiers, which follow international recognised regulations. These certification schemes could also be stimulated in a gradual way as a locally certified organic certification scheme to help local producers to comply with international standards.

Certification is one of the factors that increases the costs of production and encumbers the producer, especially when more than one certification scheme is followed. Other high production costs (e.g. paper, and airfreight for highly perishable products) decrease the potential to compete with countries such as Spain. A final issue that seems to have become important for European consumers is food miles and the related CO<sub>2</sub> emissions. Such consumer preferences may hamper the trade in products that can also be produced in Europe. Packaging costs may be decreased by intelligent designs of packaging and the use of less costly material, but so far pilot projects have not been successful. Furthermore, the indication of CO<sub>2</sub> emissions on products sold on European markets could become a useful instrument for consumers to decide which products to buy, based on actual measurements instead of general perceptions.

Limited opportunities have been found to start exporting organic products from the Netherlands to the RSA (the Netherlands currently does not export organic products to the RSA): a need has been stated for the import of vegetables in the South African winter, and for limited volumes of apples and pears. The reasons that there are limited opportunities for Dutch companies to fulfil this need is that vegetables can be sourced from African countries at a lower price, and apples and pears can be stored for a relatively long period, resulting in competition with South African producers that may render imports from Europe unprofitable.

### *Recommendations*

Based on the interviews and the results of the SWOT analysis, the following recommendations can be made to support the development of the South African organic sector and to enhance the trade between the RSA and the Netherlands. The recommendations focus on the trade in organic products between the RSA and the Netherlands, as there are limited opportunities of Dutch organic products to be exported to the RSA. These recommendations could be acted on by actors within the organic sector and/or by organisations that wish to support the organic sector or the trade in organic products:

- Finalise and implement the South African legislation or stimulate self-regulation within the sector for organic production, and establish a watchdog for organic production to monitor the implementation of the legislation. This would maintain or enhance the credibility of the organic sector among European buyers.
- Stimulate systems that enable producers and traders to access data on production and trade in organic products. This would assist organisations

that wish to support the sector to target the right geographical areas, the relevant producer groups, and specific crops and products. It would also assist producers and other companies in the organic supply chains in finding out who to contact and for which purposes; it would also help producers to get direct access to such market information as trends and potential buyers.

- Improve the representation of the sector by strengthening or establishing a platform organisation that functions as a broker, a representative and a vehicle for knowledge transfer. As platforms already exist, one of them should take the lead in coordinating the development of the sector. It is recommended to analyse whether this platform would be most effective when also organised on a regional scale or with regard to the type of crop produced (or both).
- Facilitate the increase in knowledge of organic production and logistics by helping the South African organic sector and knowledge institutes to work with Dutch institutes that are related to organic farming.
- Facilitate the establishment of contacts between South African producers and Dutch or European importers to improve cooperation and the transfer of specific knowledge.
- Enable capacity development of especially small/smaller and emerging farmers with regard to organisation skills and logistics, and with regard to technical knowledge of organic farming when they enter the export sector.
- Support the cooperation between organic farmers and between organic farmers and conventional farmers such that they can combine their production for export purposes and increase their negotiating power.
- Support the cooperation between producers and processors to establish cost-effective processing of organic products and to increase the availability of processed products for export markets.
- Assist non-certified small organic producers to become certified, potentially resulting in a price premium for their products and enhancing export possibilities because of larger volumes becoming available for export markets.
- Analyse the potential of linking organic certification with Fairtrade certification. One of the issues that arose in this research is the streamlining of the organic and Fairtrade certification procedures so that they can be combined at little additional cost.
- Investigate the possibilities to reduce the risks related to the production and transport (especially the cold chain) of organic products.
- Improve rail infrastructure management for transport to harbours in order to increase infrastructure potential.

# 1 Introduction

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## 1.1 Background

The market for organic food products in the Netherlands is growing, but supply shortages are hampering the development of the market. The policy of the Netherlands Ministry for Agriculture, Nature and Food Quality aims to encourage organic agriculture and to stimulate the growth of the market for organic products.

The Republic of South Africa's location in the southern hemisphere gives it the advantage of being able to trade organic food products during the European winter season and, accordingly, to target the shortness of supply. However, participation in the European market for organic food products is conditional, as certification, logistics, reliability and consistency are issues that determine successful market entry. Furthermore, supply may not be connected to actual consumer demand, which might hamper the further growth in sales of organic products.

Establishing conditions to enhance the trade in organic products between the RSA and the Netherlands relies on technological and organisational capacities up stream in the supply chain. A possible pitfall of the stringent conditions attached to the European regulation with regard to organic food products is the potential exclusion of small-scale producers. Hence, matching conditions in international trade in organic produce with socially embedded economic development is particularly relevant in relation to the promotion of small-scale farming and the movement for black economic empowerment in the RSA.

## 1.2 Objectives

This research assesses conditions for enhancing the trade between the RSA and the Netherlands/Europe in four organic food product groups: vegetables, fruits/processed fruits, fruit juice, and wine. These four product groups were chosen because of the large volumes already produced and traded between the Netherlands and the RSA, the potential cross-seasonal trade opportunities for vegetables and some fruits, as well as the comparative advantages for the production of wine and tropical fruits because of climatological conditions in the RSA.

For Dutch or European retail and wholesale companies, as well as for policy makers, this research further generates insights into the organic sector in the RSA and which opportunities and bottlenecks exist for sourcing organic food products from producers.

The report starts with an overview of trends in the Dutch organic market of the four selected product groups (section 2); this is followed by an overview of the South African organic market (section 3). Sections 4-7 treat the issues of horizontal integration, certification, innovations and logistics. In section 8, a SWOT analysis is presented with regard to cross seasonal trade in the selected organic food products. This is followed by observations and recommendations (section 9).

These findings in this report are mainly based on data collected during interviews with key stakeholders in the Netherlands and the RSA, and on data compiled through desk research and its overall analysis.

## 2 The Dutch organic market

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### 2.1 Introduction

Just like most European consumers, Dutch consumers are well aware of sustainability issues, and change their actions accordingly on consumer markets. Food safety, environmental issues and animal welfare are influencing consumers' buying behaviour more and more. Nevertheless, this behaviour is noticed mostly by a growing group of heavy users of organic products (van der Pijl, 2008).

In the Netherlands, two different types of consumers buy organic products (Wertheim-Heck et al., 2005):

- Heavy users, who value environmental and animal welfare issues very much and are therefore willing to pay the price premium for organic products. Another interesting group of heavy users are consumers who are suffering from allergies, et cetera and thus buy clean food for their own health reasons. Heavy users prefer all their groceries to be organic and are almost always clients of specialty shops. Heavy users account for 2-5% of the Dutch population.
- Light users, who are either well educated and have high incomes in urban regions (e.g., the double incomes of couples) and/or families with small children. Light users buy their groceries in mainstream supermarkets. They are seeking convenience, quality, appearance, and/or safety (especially the families with small children). Light users comprise about 80% of the Dutch population.

Because there is big potential to expand organic sales, the Dutch government, like many other European governments, has adopted specific actions in its organic action plan to target the group of light users. The government sees the benefit of scale and thus the potential to enlarge the organic market. Nevertheless, for some commodities things are easier said than done. Especially in the organic fruit and vegetable market consumer research shows that light users will not pay the price premium for organic products if other attributes are not met. These attributes are:

- quality (plenty of vitamins);
- appearance;

- convenience;
- safety.

Because the demand for organic products is mainly driven by the heavy users (i.e. 2-7.5% of all European consumers), international trade companies still consider the organic market a niche. But different organic product chains are becoming more and more professional, and in these chains a lot of stakeholders are active (Wertheim-Heck et al., 2005). Policy makers, producers, processors, wholesalers, researchers, providers of services, et cetera work with organic products on a daily basis.

Based on in-depth interviews with Dutch market parties and on analyses of developments within the Dutch organic market, it generally seems that there are two groups of stakeholders, in terms of their attitude towards a growing organic market (Bakker, 2008a):

- Stakeholders who want the organic market to grow as much as possible, because of the environmental and animal welfare benefits. They have a professional attitude and want organic products to be part of the mainstream product portfolio. Their business usually concentrates on mainstream supermarkets or large groups of specialty shops.
- Stakeholders who want organic products to be produced on a small scale and do not want the organic market to grow. They have a principled attitude and want organic production to stay in a natural environment, close to nature. Their businesses usually focus on local production and fresh (not processed) organic products. Their ways of selling are direct sales from farms or farmers' markets.

The majority of Dutch stakeholders embrace the first attitude in trying to maximise the sustainable consumption and adoption in Europe of organic food. Since 2002, the Dutch government has been active in organic action plans, and has entered into covenants with market parties in order to stimulate the demand for organic products. Between 2002 and 2007, the sale of organic products grew by 38%, namely from €375m. to almost €519m. Demand is growing on a yearly basis, outperforming the non-organic food market over and over again, as in the same period the total sales in the Netherlands only grew by 12%. Nevertheless, product availability is preventing stronger growth.

The main sales channels in the Netherlands for organic products are the major supermarkets and natural food shops. Each generates about 45% of the domestic sales of organic products. The remaining 10% is generated via Internet sales, farmers' markets and the farm gate. In the Dutch market, it is not

possible to sell in supermarkets and in specialty shops under the same brand, mainly because the natural food shops and the supermarkets want to use separate brands because they have different price policies. To achieve profit, natural food shops need a higher price premium because of higher logistic costs.

Like regular products, the Netherlands is functioning as a European main port in organic products. In Europe, the biggest organic markets are in Germany and the UK; between them, they account for about 50% of all European organic sales. Both are main target markets for Dutch exports. When looking at the four commodities of this research, only organic fruit and vegetables are re-exported. The re-export mainly occurs in organic tropical fruit. Organic wine and fruit juices are only imported for domestic consumption in the Netherlands.

In the following sections, the Dutch market situations for organic vegetables, fruits, juices and wine are presented. These four product groups were chosen because of the large volumes already produced and traded between the Netherlands and the RSA, the potential cross-seasonal trade opportunities for vegetables and some fruits, as well as the comparative advantages for the production of wine and tropical fruits because of climatological conditions in the RSA.

## **2.2 Organic vegetables**

In 2007, more than 25% of the Dutch total organic consumption was generated from sales of organic vegetables and fruit, including potatoes (Bakker, 2008b). Of this, Dutch consumers spent €83.7m. on organic vegetables (ibid.). The market share of organic vegetables was 4.8%, which is significantly higher than the average 2% for all organic products (ibid.). Organic vegetables are thus considered a leading organic product group.

Between 2006 and 2007, Dutch sales of organic vegetables increased by more than 15% (ibid.); an annual growth of at least 10% is expected by market experts. In organic vegetables, as in other commodities, supermarkets and natural food shops are the main sales channels. Over half of the volumes are sold by supermarkets. Another 33% of organic vegetables are sold by natural food shops. Table 2.1 differentiates the total sale of organic vegetables in the Netherlands into the different sale channels.



<b>Sales channel</b>	<b>Percentage</b>
Supermarkets	53.5
Natural food shops	33
Farmers' markets	9.2
Internet	3.7
Box schemes	0.3
Source: Bakker (2008a).	

Developments outside the two main sale channels show a decrease of sales through farmers' markets, but Internet and box schemes are growing. Box schemes<sup>1</sup> are generally supplied by local growers and focus on a seasonal approach. Dutch companies like Van Eigen Erf and Van Haver Tot Gort, which sell organic vegetables through the Internet, are increasingly offering a product range that is comparable with that offered by natural food shops.

Organic vegetables in the out-of-home channel - which mainly covers in-company catering, hospitals, schools and restaurants - is an upcoming sale channel. Although in-company catering and schools in general do not need many vegetables (significantly more fruit is sold in catering), opportunities for increasing organic vegetable sales in the out-of-home channel are seen in hospitals and restaurants.

### 2.2.1 Organic fresh vegetables

Most varieties of organic vegetables are produced in the Dutch horticultural sector or in field production systems. Major products from Dutch horticulture are organic tomatoes, sweet peppers and cucumbers. In the field production systems, onions and cabbage are by far the leading organic products. Table 2.2 presents a differentiation of the sales of organic vegetables by varieties.

<sup>1</sup> Through a box scheme, fresh organic vegetables and fruits are delivered in a box directly to customers or through a collection point, on a weekly basis (or sometimes less frequently).

<b>Table 2.2</b>		<b>Differentiation by variety of organic vegetable sales in Dutch supermarkets (2007)</b>	
<b>Variety</b>			<b>Percentage</b>
Tomatoes			18.9
Sweet peppers			4.6
Cucumbers			4.6
Onions			14.5
Carrots			5.0
Cabbages			14.6
Mushrooms			10.0
Lettuces			5.8
Herbs			3.0
Other vegetables a)			19.0
a) Other vegetables includes mainly garlic, beetroot, chicory and beans.			
Source: Bakker (2008a).			

### 2.1.2 Organic dried vegetables

Most organic dried vegetables are used in industry, catering and restaurants as ingredients for baby foods, soups and ready-to-use meals. Although the market size is unknown, it is known that Dutch consumption of organic baby food decreased by 17% between 2007 and 2008 (Bakker, 2008c). The market size for organic baby food in Germany is at a respectable 60+% (ibid.). A remarkable fact is that organic baby food is sold mainly in drugstores. In the Netherlands no solid bases for selling organic baby food exist, but market parties are trying to create such bases in order to develop a new market.

### 2.1.3 Organic canned vegetables

Sales of organic canned vegetables in Dutch supermarkets increased between 2007 and 2008 from €3.15m. to €3.5m., that is, by 11% (ibid.). These are primarily organic canned vegetables (mostly the same varieties that are used for regular canned vegetables).

### 2.1.4 Trade in organic vegetables

The self-sufficiency in organic vegetables in the Netherlands is very high, and export is considerably larger than domestic production. About two thirds of the

domestic production of vegetables from field production systems is exported. The Netherlands thus plays an important role in the international trade in organic vegetables.

In the Netherlands, the domestic supply and international trade in organic vegetables is mainly done by two companies (see appendix 1 for more information on Dutch traders in organic products). The first is Naturelle. Naturelle is part of the cooperative The Greenery, which purchases vegetables from its own producers. About 2.5% of Greenery's total sales are done through Naturelle, which performs as its own organic supply chain. Naturelle is the main supplier of the Dutch domestic market. Nevertheless, around 65% of the organic vegetables traded by Naturelle are exported to other European countries. The main export destination is Germany. The second company and the biggest trader in organic vegetables and fruits in the Netherlands is Eosta B.V. in Waddinxveen. The company focuses mainly on the export of organic vegetables from Dutch horticulture. About 96% of its sales are exports. Besides Germany and the UK, Eosta also sells to Scandinavia, France and Belgium. A small percentage (mainly Dutch sweet peppers) is exported to the United States.

There is some import of organic vegetables into the Netherlands. Some smaller companies focus on specific organic products like carrots and onions. About 25% of the organic onions on the Dutch market are imported, mainly from Germany and Denmark. In addition, some organic pumpkins are imported from South America, but the majority are immediately re-exported to Germany.

The way that organic vegetables are transported, when imported or exported, depends on the shelf life of the products. Organic vegetables imported from outside Europe and with shelf lives of a few days are transported by airplane. Organic vegetables from outside Europe and with shelf lives of a few weeks are transported by ship (see section 7 for more information on transport and logistics). Organic vegetables that are bought or sold within Europe are generally transported by truck. All transport facilities use quality-controlled cooling systems, and are generally insured. Organic vegetables are usually transported using the same logistics as non-organic vegetables. Although organic vegetables need to be secured in order to avoid contamination, no separate logistical systems have yet been developed for organic products.

The situation of organic fruit on the Dutch market is presented in the following section. It is evident that major trading companies in organic vegetables and organic fruit are primarily the same. Import levels, however, differ significantly between organic vegetables and fruit.

## 2.3 Organic fruit

In 2007, Dutch consumers spent €23.3m. on organic fruit. The market share (1.7%) is much lower than the market share of organic vegetables. Between 2006 and 2007, sales increased by 7%. Market experts expect an annual growth of about 8% to 9% in the coming years.

As in all organic product categories, the most important sales channels are supermarkets and natural food shops. Almost 85% of the organic fruit sold in the Netherlands, is sold through these channels. Organic fruit sales in the out-of-home channel are mainly generated in in-company catering and schools.

### 2.3.1 Organic fresh fruit

By far the best selling organic fruits in the Netherlands are bananas and kiwis. In supermarkets, these two products account for more than 68% of the total organic fruit sales. Although apples contribute a smaller share compared to bananas and kiwis, the share is substantial (i.e. 16.5%). There are hardly any sales of organic soft fruits (yet). Table 2.3 shows the differentiation by varieties of organic fruit sales in Dutch supermarkets.

<b>Table 2.3</b>	
<b>Differentiation by varieties of organic fruit sales in Dutch supermarkets (2007)</b>	
<b>Variety</b>	<b>Percentage</b>
Bananas	38.6
Kiwis	30.0
Apples	16.5
Other fruits a)	14.9
a) Mainly pears, grapes, oranges and lemons. Source: Bakker, J.H. (2008b).	

Organic bananas in the Netherlands are mainly purchased in supermarkets. Companies that supply the supermarkets with organic bananas are Max Havelaar - which supplies the major supermarket chain Albert Heijn with organic/ Fairtrade bananas under its private label - and Agro Fair, which supplies other major supermarket chains under the Oké brand.

### 2.3.2 Trade in organic fruit

The self-sufficiency in organic fruit in the Netherlands is lower than in organic vegetables. Various varieties of organic apples and pears are domestically grown, while the organic fruit market is dominated by fruit (mainly bananas and kiwis) imported from South America and New Zealand. Nevertheless, the main-port function of the Netherlands creates much re-export of organic fruit. Customers in the main destination countries, namely Germany and the UK, purchase their tropical organic fruits from trading companies in the Netherlands.

Except for organic bananas, organic fruit is mainly domestically supplied and internationally traded by the same two companies as in organic vegetables and a third company called OTC Holland. Although Naturelle's core business is organic vegetables, 20% of its domestic and export sales are organic fruit. Its export is mainly organic top fruit (fruit which grows on trees) like apples and pears. Eosta sells organic tropical fruit that is imported from South America and several countries in Africa. Just like Eosta's export of organic vegetables, most imported organic fruit is re-exported to customers in Germany and the UK.

The market for organic vegetables and fruit in the UK is somewhat special. Organic fruit sales in 2007 amounted to about €250 - €300m. Because British consumers prefer to buy domestically produced rather than imported organic fruit, opportunities exist only in fruit categories that have a greater shortage on the British organic fruit market. The following table shows shortages in major fruit categories in the organic market in the UK.

<b>Variety</b>	<b>Percentage</b>
Apples	85
Pears	95
Soft fruits	63
Stone fruits	95

Source: Organic market report (2007); Soil Association (2008).

These percentages have been steady for several years now, and market experts expect no change in the coming years. When domestic production is not available, British companies purchase products from as close by as possible, as the carbon food print is an important issue for the British consumer. Being situated close to the UK is therefore a major opportunity for Dutch companies to

become preferred suppliers of organic fruit for the British market. The other important market for Dutch organic fruit sales is Germany, which is also a nearby market. In Germany, however, food miles are less of an issue than in the UK.

The logistics related to the production of and trade in organic fruit is similar to that of organic vegetables. In general, organic fruit has a slightly longer shelf life than vegetables, which improves its potential to be transported over long distances by ship. Organic fruit that is bought or sold within Europe is also transported by trucks. Furthermore, the quality and contamination controlling systems are similar to the systems used for organic vegetables.

The market situation of organic fruit juice is presented in the following section. Although organic fruit and organic fruit juice are closely related, the product chains differ significantly. The reason for this is that they have a different approach. Where organic fruit is part of the trade in fresh products, the production of fruit juice adds a processing step in the product chain. Also, varieties can differ. For example, fresh organic oranges are often of the navel variety, whereas organic oranges for juice purposes are usually Valencias.

## **2.4 Organic fruit juice and other processed fruit**

### **2.4.1 Organic fruit juice**

In the Dutch market for organic fruit juice, annual sales in 2007 amounted to about €3.3m. Between 2006 and 2007, the market grew by 15%. Nevertheless, organic fruit juice has a market share of less than 1%. About 50% of the organic fruit juice that is sold, is sold cooled.

The majority (about 75%) of the sales of organic fruit juice are generated in supermarkets. For example, Albert Heijn - the largest Dutch retail chain - sells five varieties of organic fruit juice under its private label. These juices give the company a market share of about 50% of sales in all supermarkets. Other brands are Zonnatura and Biorganic. Each of these two brands has a market share of around 19%.

Natural food shops offer organic fruit juice that has been produced in various European countries. An important Dutch brand sold by natural food shops is Loverendale; the German Voëlker, Rabenhorst, EOS and Zwolberich and the Italian Isola Bio are also major brands.

As table 2.5 shows, the most important organic fruits used in organic fruit juice in the Netherlands are apples and oranges.

**Table 2.5**      **Segmentation of organic fruits used in organic fruit juice in the Netherlands (2007)**

Variety	Percentage
Oranges	46
Apples	36
Cranberries	5
Mangos	4
Plums	2
Other fruits a)	7

a) Mainly berries, grapes, pears and cherries.  
Source: Bakker (2008b).

Tradin is the biggest trading company in organic fruit juice and canned fruit in the Netherlands. Tradin plays an important role in supplying the Dutch and the British market with, amongst others, organic orange juice.

European countries produce some organic fruits themselves. In the case of the Dutch fruit juice market, usually organic apples are grown domestically. In the case of other fruit varieties, the level of import depends on the availability in nearby countries. For example, there is enough production of organic cranberries in the Netherlands to provide enough raw material for the production of cranberry juice.

The first steps in the processing of organic orange juice take place in the country of origin. By extracting water, the orange juice is thickened into concentrate, which is then shipped to European destinations for further processing. In Europe, processing units re-create organic orange juice by adding water to the concentrate. The organic orange juice is then packaged and transported to the final destination.

When fruit juice is imported from faraway production locations, transport is always by ship. Costs for logistics are an important factor for the profitability of this supply chain. As much water as possible is therefore extracted from the fruit juice in order to lower the transportation weight and thus costs.

There is a great lack of raw material in the market for organic fruit juice. There is market potential especially for organic soft fruit, as well as for white grapes.

## 2.4.2 Organic canned fruit

Sales of organic canned fruit in Dutch supermarkets increased between 2007 and 2008 from €0.75m. to €0.9m., an increase of 20%. Organic applesauce is the only organic canned fruit sold in the Netherlands.

## 2.4.3 Organic dried and frozen fruit

In 2008 consumers spent almost €440,000 on organic dried fruit in Dutch supermarkets. Of this, 93% was spent on organic raisins. Sales figures for organic dried fruit are not available, but this does not mean that they do not exist. A lot of the frozen organic fruit is processed into jam, fruit yogurt, ice-cream, et cetera.

Behind the scenes, there is Dutch trade in organic frozen fruit, but the size and importance of this trade is unknown. Unprocessed frozen organic fruit is imported from various countries (e.g. China), and if not processed, mainly exported to the United States.

## 2.5 Organic wine

All the previously mentioned organic commodities (i.e. vegetables, fruits and fruit juices) are traded by a few large companies. Trade in organic wine is different. Although a few companies supply major sale channels, many small wine specialists are active in the Netherlands. They often have only a limited number of organic wines. At this moment, just over 150 specialists import 1,529 types of organic wine.

Although the market for organic wine is still limited (market share: just above 1% in 2007), organic wine traders perceive the market to have a large growth potential. This is partly based on the fact that in the last 20 years, there has been a continuing growth in the annual total wine consumption. The average annual Dutch wine consumption in 2007 was 21.6 litres per capita. With 16.3m. inhabitants and only 1.25m. bottles of organic wine imported in 2007, the average organic wine consumption per capita was less than 0.10 litre. When organic wine of good quality becomes generally available, wine traders expect growth in the market.

In 2007, Dutch consumers spent €3.1m. on organic wine in supermarkets, and €3m. in natural food shops. A small proportion of organic wine is sold through the out-of-home channel. The average consumer price of organic wine



differs between supermarkets and natural food stores: in supermarkets, the average price for a 75 cc bottle is about €4.30, while in natural food shops the price is between €6 and €7. Where more than 90% of all conventional wine is sold through supermarkets, a remarkable 45% of all organic wine is sold through natural food shops. Of the organic wine that is sold, 51% is red, 43% is white and 6% is rosé.

The Netherlands imports all its organic wine. All imports are intended for domestic consumption. In the Netherlands, a large number of small private wine specialists import small numbers of organic wine types, with a focus on niche markets for private investments in high-value organic wines.

The most important countries of origin for the import of organic wine into the Netherlands are France, Italy, Spain and Germany, as can be seen from table 2.6. Together, these countries provide about 90% of all types of organic wine in the Netherlands.

<b>Table 2.6</b>		<b>Country of origin of organic wine on the Dutch market (2006 and 2008)</b>		
<b>Country of origin</b>	<b>Number of types in</b>		<b>Development %</b>	
	<b>2006</b>	<b>2008</b>		
France	701	738	37	
Italy	264	277	13	
Spain	140	171	31	
Germany	119	143	24	

Source: Wijninfo (2008).

Import from these four European countries is done by truck. Importing from more distant countries of origin is done by sea transport. When shipped, the bottles are stored in boxes on pallets. From purchase till arrival on the Dutch market, this kind of transport usually takes about four weeks.

Around 95% of the Dutch market in organic wine is supplied by four leading companies:

- Coenecoop is a major supplier of natural food shops. Over 50% of its sales are generated in natural food shops. Other buyers are supermarkets and wholesalers for Dutch restaurants. The focus of Coenecoop is on added value for organic wine by building strong brands. One of their well-known brands is Stellar Organics from the RSA. Only Coenecoop sells Stellar Organics wine in the Netherlands. Despite the success, organic wine sales account for only 15% of its total wine sales.

- Lovian sells to the Dutch supermarkets. Because the average price of organic wine in supermarkets is significantly lower than in natural food shops, Lovian's focus is on low-priced and high-volume sales.
- Vinoblesse sells about 70-75 types of organic wine produced in Germany, France, Italy and Spain. About half of these wines are organic reds. Vinoblesse sells only through the Internet. Buyers are consumers who like to buy somewhat larger quantities; however, some big companies also purchase their organic wines from Vinoblesse.
- Pieksman sells only organic and biodynamic wines. Although the company started with organic wines from France, it now sells wines from various European countries.

Although these four companies are dominant in the Dutch market, sometimes an additional organic wine-selling company is active in the market. At the time of this research, Mitra (a discount chain for wine and spirits) was selling an organic wine from Chile, bringing in an additional 150,000 bottles onto the Dutch market.

## 2.6 The development of the Dutch organic market

For a number of years now, Europe has been responsible for about 50% of the worldwide consumption of organic products, while producing only 25% of the worldwide production of organic products. A growth in European organic consumption of around 10% was forecast for 2007 and 2008 (Organic Monitor, 2006). Market expectations pronounce annual growth with comparable figures for the coming years. Between 2007 and 2008, European organic production grew by only 6% (ZMP, 2008). Although part of the growth in sales is due to higher prices, production has not seen a large increase and there are no signs of a future major expansion of organic production in Europe. This means that there is potential for growth in the export of organic products to Europe from foreign producing countries.

In addition, Europe is presently also facing a higher demand for than supply of organic products. The main markets in Europe are Germany, the UK, France and Italy. Together they account for about 75% of the total European market. In absolute terms, Germany is the biggest market: €5.3 billion and a market share of about 3.4% in 2007 (Hamm and Rippin, 2008). Alpine countries such as Austria, Switzerland and the Scandinavian countries Sweden and Denmark show a relatively high consumption of organic products resulting in market shares of

around 5% (Bakker, 2008c). Furthermore, Europe's organic market is expanding faster than the market for conventional products.

The current and coming developments in the organic market create ongoing and even growing interest in alternative organic production areas in other parts of the world. This does not occur in every supply chain, however, as for some products Europe is capable of producing enough for its domestic consumption, and even for exporting to other markets like the Middle East and North America. However, imports of product groups that cannot or cannot easily be produced in Europe are required to fulfil the growing demand of European consumers for organic food.

Export potential exists for Dutch organic vegetables, produced in horticulture and field production systems, as well as for Dutch organic fruit which grows on trees, like apples and pears. Behind the scenes, Dutch traders also collect organic fruit juice concentrate, arrange processing in Germany and export a large quantity of it to the UK. And finally, Dutch traders import large quantities of organic tropical fruit to re-export it to their customers in other countries.

It is only in the market for organic wine that there is no export and re-export. Organic wine is imported by several Dutch companies for domestic consumption only. Nevertheless, opportunities for expanding the domestic market exist for organic wine, because trends have shown increases in the per capita consumption of wine in the Netherlands, and companies expect the share of organic wine in total consumption to increase.

With the European main organic markets of Germany and the UK near to the Netherlands, combined with the existing Dutch infrastructure in trade and the main port function of Rotterdam harbour, it is foreseen that the Netherlands will continue to play an important role in collecting organic products and supplying organic products to customers around Europe.

It is expected that the Netherlands will see organic market expansion in imports of organic tropical fruit, organic fruit juice concentrate and organic wine. Furthermore, there is potential for the expansion of exports of Dutch organic vegetables produced in horticultural and field production systems, and the re-export of organic tropical fruit and organic fruit juice.

# 3 The South African organic market

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## 3.1 Introduction

The information presented in this section was gathered during interviews with key stakeholders in the RSA; it is complemented with data compiled through desk research. A list of the interviewees is presented in appendix 2.

Both the production and the consumption of organic food products have increased in the RSA in the last few years. Consumption has increased because, generally, living standards of the south African population has improved. Production has increased as well, although not as fast as consumption. The result is that supply of organic products cannot keep up with the demand, and therefore retailers have difficulties stocking their shelves according to demand. One of the large retailers in the RSA, which is also a leading retailer of organic foods, has therefore bought its own production companies to ensure delivery. Because of the prevalent market opportunities, some conventional farmers have converted part of their farms into organic production in order to fulfil the demand of retailers.

Statistics on production and trade volumes or acreage of organic production in the RSA is not readily available; the data that exist are marginal and usually out-dated. The number of organic farmers is therefore not absolutely clear, but 250 organic farmers were estimated to be active in 2001 (Walaga, 2003), producing on 45,000 ha, which amounted to 0.05% of total land use. In 2005, total land under organic production seemed to have increased to 50,000 ha, also amounting to 0.05% of total land use (Willer, Yussefi-Menzler and Sorensen, 2008). The question is whether all organic producers are included in these figures, as also at least 100 non-certified farmers (with an acreage of in total 1,000 ha) produce according to organic standards, but market their products on the local market (IFOAM, 2003). It is estimated by the interviewed stakeholders that around 300 organically certified farmers are currently active in the RSA, of whom 100-115 are white. It was furthermore estimated that in 2005 the value of the organic market was ZAR 100m. (around €13m.) for all categories of products (Buffee, 2005).

The organic production increase is generated by both small-scale and large-scale farms. Certifiers have noted in last few years a massive movement of producers to start organic production, but half of all people who start producing organically drop out because of the difficulties of production. In addition, the

lack of education, scientific research and extension (see also section 4.7) does not assist in increasing the conversion of farmers. Therefore, the growth in the demand for organic products does not result in a similar growth in the supply of organic products.

A further increase in the production of organic products in the RSA is hampered by the following issues:

- It is costly to certify a whole farm as organic, so organic-oriented farmers often certify only part of their farm.
- Risk is higher in organic production because of pests and diseases, which is why farmers refrain from converting their farms/whole farms to organic production, especially when prices for conventional products are reasonable.
- Conversion takes on average 3 years, in which yields drop by around 25% because the soil nutrients need to adapt to a new balance. Production levels for main crops, like citrus, are only restored after 5-8 years but mostly production levels are lower than prior to conversion, depending on the soil quality and the climatic conditions.
- Price-premiums for organic products are between 0 and 30% in the RSA. Lower production combined with low price premiums means that farmers' incomes drop during conversion. After conversion, however, costs of production are generally lower than for conventional production.
- The lack of financial resources available to farmers to live through the conversion period.
- A lack of good quality labour and a generally low labour productivity. Labour is cheap in the RSA, but as productivity levels are low too, labour costs can be relatively high.
- Transport is riskier for organic products (and especially for fresh produce) than for conventional products.
- The mindset of the conventional farmers: generally, farmers in the RSA are not aware of or educated about organic farming and the opportunities of large-scale organic production. They have a short-term attitude with regard to investments, most of which are geared towards cost reductions, possibly because they do not have enough capital to invest for a long period.
- A lack of a network to help them with certification rules and with selling their product to export destinations.
- A lack of organised education about organic production methods.
- A lack of knowledge about certified producers. As a result of competition between certification bodies, no public information is easily available about certified organic farms.

- A lack of clear national standards for organic products. There is no national regulation in the RSA for organic production. In the current situation, general quality regulations for export products are used by the PPECB.

Ways to successfully convert to organic production are diversification of production in the case that pests, diseases or drought decrease the yields for some crops. Diversification with conventional production also occurs to keep incomes on an acceptable level throughout the conversion period. Another factor of success can be the integration of activities that usually take place throughout the chain in the activities of the farm. Adding value to the products before they leave the farm through processing and packaging the products is said to greatly increase returns. Those who own a processing or packaging facility could also use it for products from other farms in the surrounding area.

The following sections present information on the production of organic vegetables, fruit and wine. This information includes a general indication of the production areas, as there are no hard data on organic production. This information was collected during interviews, and taken from the export production areas indicated in PPECB (2008). In addition, harvest or sale periods, and information on the number of organic farmers is presented when available. Production areas are presented on maps of the RSA that show the provincial borders. Figure 3.1 is the political map of the RSA, showing the names of the provinces.

**Figure 3.1**      **The Republic of South Africa**



### 3.2 Organic vegetables

A variety of organic vegetables are produced in the RSA, ranging from chillies to butternut pumpkins, and from rocket to carrots and onions.

The certifying body BDOCA currently certifies about 120 vegetable farmers, each of whom has a farm of between 4 and 10 ha. They grow all sorts of vegetables. These farmers often supply one farm in Gauteng province, which functions as a distribution centre and supplies to one of the large retailers in the

RSA. The packaging house of this distribution centre is officially certified as organic. This distribution centre does export some vegetables, but not to Europe.

There is only one certified organic chilli producer in the RSA. This producer also produces olives and processes its products into all kinds of jams, spreads and sauces.

Information on the production areas of organic vegetables is not available. In the figures below it is indicated in which areas the conventional and organic vegetables that are exported to Europe are cultivated. It is highly likely that vegetables/organic vegetables are also cultivated in other regions, but this information is not available.

**Figure 3.2** Asparagus export production area



Source: PPECB (2008).

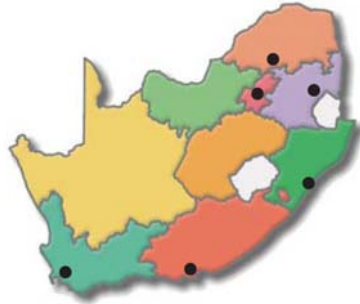
**Figure 3.3** Garlic export production areas



Source: PPECB (2008).



**Figure 3.4** Mushroom export production areas



Source: PPECB (2008).

**Figure 3.5** Onion export production areas



Source: PPECB (2008).

**Figure 3.6** Sweet potato export production areas



Source: PPECB (2008).

**Figure 3.7****Tomato export production areas**

Source: PPECB (2008).

**Figure 3.8****Ginger export production area**

Source: PPECB (2008).

With regard to the production of organic vegetables, organic certifiers indicate that in Gauteng province and its surroundings, most of the RSA's organically certified vegetable production takes place. In the export markets for all vegetables (including organic), a decrease in the export of most vegetables (apart from mushrooms and tomatoes) occurred from 2002 until 2007 (PPECB, 2008).

### 3.3 Organic fruit and processed fruit

Various types of organic fruit are produced throughout the RSA. This is due to various climatic conditions and a range of different soils. Organic citrus and grapes are said to be the most important organic fruit varieties produced in the RSA.

Even though the production of organic fruit takes place throughout the RSA, exported organic fruit is mainly produced in Western Cape province (apart from citrus) on relatively large farms. In Limpopo and Kwazulu Natal, smallholders are developing organic production, often with the aid of non-governmental organisations.

### 3.3.1 Citrus production

Citrus suffers from black spot and fungal diseases, especially when produced organically. There are black spot free areas in the RSA such as in Western Cape province. These areas are inspected regularly to see if they are still black spot free. Farmers in areas where black spot occurs, mainly in the Northern and Eastern Cape provinces, are not allowed to transport their oranges. In this way, the risk of contamination is kept to a minimum. Transporting juice from oranges with black spot is allowed, however.

While non-organic oranges are produced mainly in the West Cape area, organic oranges are produced mainly in the East Cape area, near Port Elisabeth. Production of organic citrus in the Eastern Cape has been growing for the past three years and is expected to continue growing in the coming five years. There are also some organic citrus producers in the Western Cape, one of which is a large orange producer that also exports and juices its oranges. Around Orange River, also organic oranges are produced. See figures 3.9-3.11 for citrus export production areas. Again, these areas indicate conventional and organic production with export destinations, so organic citrus that is not exported may also be produced in other areas. As can be seen from these figures, citrus is produced in almost all provinces.

**Figure 3.9** Grapefruit, lemon and lime export production areas



Source: PPECB (2008).

**Figure 3.10****Orange export production areas**

Source: PPECB (2008).

**Figure 3.11****Soft citrus (mandarin types) export production areas**

Source: PPECB (2008).

Organic table oranges (navels) are harvested in May-July in the Eastern Cape and in around August in the Western Cape. Organic oranges for juice (Valencias) need to stay on the tree for a longer period in order to reduce the acidity level of the fruit. When organic oranges are rejected for export due to quality reasons, they are usually sold on the domestic market.

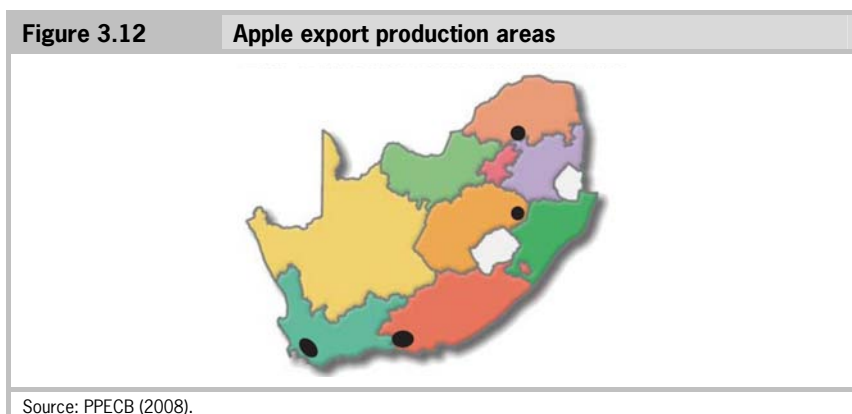
Juicing oranges is a market opportunity, as internationally there is a large demand for organic juice. Juice processing facilities are all situated in the West Cape area. A large distance between the place of production and processing makes it more expensive for Eastern Cape orange producers to juice their oranges. To overcome the extra transport costs, two large organic orange juice producers in the Eastern Cape area, together with an European business partner, planned to build an organic orange concentrate factory in 2007. However,

due to internal differences in opinion the project was cancelled. At this moment it is difficult to deliver large enough quantities to the non-organic-juice factories in order to have a special run for organic juice.

### 3.3.2 Production of deciduous, subtropical and exotic fruits

Deciduous, subtropical and exotic fruits are also cultivated in the RSA. Information from the interviews indicates that at least apples, pears, plums and olives are grown organically in the RSA (grapes are treated in the following section). For instance, there are five certified organic olive producers, three of which process olives into olive oil.

The apple, the pear, and the plum and prune export production areas are indicated in figures 3.12-3.14. The PPECB did not record any export of olives from the RSA in 2008.



**Figure 3.13** Pear export production areas



Source: PPECB (2008).

**Figure 3.14** Plum and prune export production



Source: PPECB (2008).

### 3.3.3 Fruit harvesting periods

Harvest periods differ between fruit types and production area. Furthermore, as the RSA is in the southern hemisphere, winter starts in April and lasts until September, and summer starts in October and lasts until March. In table 3.1 below, a indication is given of the harvest periods for certain fruit types. Harvest periods do not generally indicate sales periods, as some fruit types (e.g. apples and pears) can be stored for a very long time.

Fruit types	Month												
	1	2	3	4	5	6	7	8	9	10	11	12	
Apricots													
Avocados													
Grapes													
Peaches													
Plums													
Mandarins, EC a)													
Mandarins, WC													
Oranges (navels), EC a)													
Oranges (Valencias), EC a)													
Lemons, EC a)													
Grapefruit, EC a)													
Mandarins, EC a)													

EC = Eastern Cape; WC = Western Cape; a) Source: SRCC (2008).  
Source: Interviews with producers and exporters, PPECB (2008).

### 3.3.4 Processed fruit

Canned and frozen fruit is exported from the RSA, but exports decreased between 2002 and 2007 (PPECB, 2008). Interviewees said they had experimented with frozen fruit and dried fruit, but only very small volumes are currently produced. It is not clear whether *organic* canned fruit is produced in the RSA and if so, whether it is exported. Total frozen fruit export volumes decreased by 50% between 2002 and 2007 (ibid.). Total canned fruit export volumes also decreased, by 65% between 2002 and 2007, while total export volumes of dried fruit increased by more than 140% in the same period (ibid.). Canned fruit export volumes were, however, ten times larger than frozen fruit export volumes and four times larger than dried fruit export volumes in 2007 (ibid.).

## 3.4 Organic wine

At the moment, there are around 22 organic wine producers, and more farmers are converting their grape production into organic grape production. According to one of the interviewees, between 10,000 and 20,000 cases (a case holds

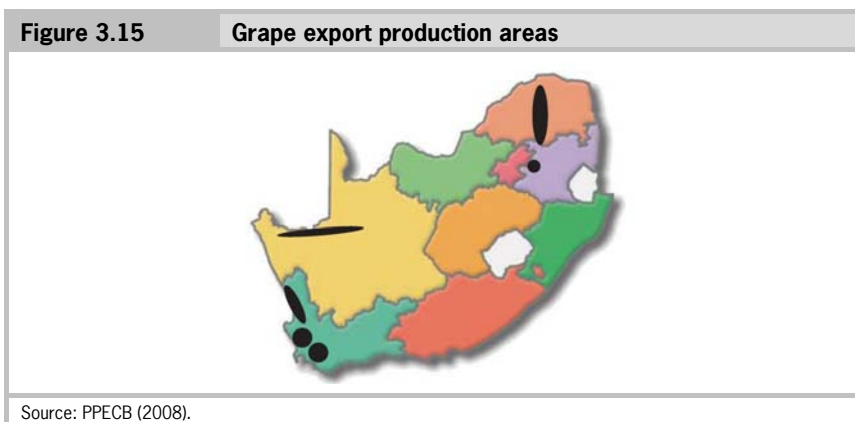
12 bottles, each containing 0.75 litre) of organic wine are sold domestically each year.

Stellar Organics - which produces according to Fairtrade standards - is said to be the largest producer of organic wine in the RSA. Its main objective is to produce large quantities of good quality grapes and wine in a sustainable way, and to be able to reach many consumers with their products. To do so, they also buy grapes from out-growers. Because they produce on such a large scale, their prices are relatively low. Stellar also sells table grapes, but they have difficulty with packaging and the returns on table grapes are not very good.

Other wine producers active on the market are:

- SONOP: combines organic and conventional production;
- Stellar Winery: 100% certified, exports 70,000 cases annually to the Dutch market;
- Bon Cap: 100% certified, exports around 3,000 cases a year;
- Groot Parijs: exports 1,250 cases a year, but has a much larger potential;
- Avondale: exports 5 pallets (= 400 cases) a year.

Grapes are produced for export purposes in a few large areas in the RSA. These are shown in figure 3.15.



### 3.5 Existing markets for South African organic products

Organic fruit, vegetables and wine are sold on the domestic market in the RSA as well as on international markets. Unfortunately, no data are available on total sales of or total trade in organic products in the RSA. Both certified and non-



certified organic products can be found on the local markets (Epopa, 2006). For export markets, however, organic certification is essential (see also section 5.1).

### 3.5.1 Supply chains for organic products in the Republic of South Africa

The supply chains of organic fruit and vegetables are organised in various ways: some chains are very short, as producers sell their fruit at farmers' markets, through box schemes in large cities or directly to retailers. Most supply chains are longer, however, as fresh products are distributed, processed, packaged and transported to retailers and specialty shops by various entities. Especially specialty shops mostly sell processed fruit and vegetables such as jams, dried fruit, liquor and sauces. Wine has the same supply chain configurations as fruit and vegetables, although also wine is also sold directly to people who visit the wine estates, making the supply chain even shorter.

Longer supply chains exist because it is difficult for most smaller growers to add value to their products or to supply sufficiently large quantities to retailers directly. In addition, retailers expect continuity in supply, which often cannot be guaranteed by small-scale producers. Organising the logistics may also pose a challenge for producers. Companies functioning as intermediaries have therefore taken up the tasks of combining volumes, processing and packaging in order to deliver to retailers.

When supply chains are longer, however, the margins for the producers or companies upstream the chain are generally smaller. This is why many producers in the RSA try to integrate multiple steps in the supply chain into their business activities in order to increase their share of the final consumer price. Farmers are perceived by some to be capable only of producing raw material, but there is much evidence that there are many producers in the RSA who successfully process, package and market their products to be sold on domestic and international markets.

Packaging is very expensive, because the price of paper is calculated based on the import parity approach: its price is connected to the import price of paper in US dollars. Because the value of the South African rand has decreased and the value of the US dollar has increased, paper and thus packaging has become very expensive.

### 3.5.2 The domestic market

According to some of the interviewees, 90% of all organic products sold on the domestic market are sold through retail. 10% are sold through specialty shops, farmer's markets and box schemes.

Pick 'n Pay and Woolworths are the leading retailers with regard to the sale of organic vegetables, fruit and wine. Whereas Woolworths focuses on high-value, high-price markets, Pick 'n Pay's objective is to offer products at a relatively lower price but with a good value-for-money ratio for consumers.

Growth has been seen in the sale of organic products at both retailers. Pick 'n Pay's organic vegetable sales grew by 100% between 2007 and 2008, while its top fruit sales (fruit growing on trees) grew by more than 200%, although the company started with a relatively low quantity. It has a lot of difficulty finding enough organic vegetables to stock its stores, which is why it tries to stimulate producers to convert to organic production.

Perishable products with a short shelf life (e.g. soft fruits and top fruit) are mostly sold on the domestic market, as there is a high risk when shipping them. Some producers try to process their soft fruits in such a way (freezing, drying) that they can be exported more easily, but producers are still in a development phase in this respect and quantities are very low. Organic wine is also sold on the domestic market, both as organic and as conventional wine.

The interviewees indicated that only organic flour, sugar and other products used for processing are imported. No organic vegetables, fruits or wines are imported. Counter-seasonal imports of vegetables could be an opportunity at times when the domestic supply of vegetables cannot meet demand, namely in periods with limited vegetable harvests. Imports would then assist producers to comply with their contracts with large retailers to supply organic vegetables year-round. It is more likely, however, that such products would be imported from other African countries than from Europe, as this would be cheaper.

According to some large trading companies, there is also potential for the import of small volumes of apples and pears, as local production does not fulfil consumer demand. As these products can be stored for twelve months, however, competition may render imports from Europe unprofitable.

### 3.5.3 Export markets

Generally, the RSA exports raw organic materials or products for which only the first step in processing (e.g. juicing) has been carried out in the RSA. Adding value to products by processing in the RSA is difficult because importers in

Europe and the USA prefer to process the products in their own vicinity. Some producers try to add value to their products by developing product innovations, with the objective to increase their margin (see also section 6). However, exporters expect the current financial crisis to negatively affect their exporting volumes.

Organic fruit (especially citrus) from the RSA is sold to the USA and, in Europe, to the UK, Germany, the Czech Republic, the Netherlands, Spain, Portugal, Denmark and France. Fruit is also exported to the Middle East, Russia and Canada. Grapes are the largest volume in exports, but price premiums are not high at the moment. Organic grapes are mostly exported to the UK and Germany, but the interviewees suggested that sales had dropped considerably in the UK in the previous few months. A lot of juice concentrate is sold to Europe, but competition with Spain is fierce.

The interviewees suggested that organic vegetables are currently only exported to Dubai.

Wine is more difficult to export than fruit, because of the required documentation. Wine is exported to many countries, among which the UK, USA, Germany and the Netherlands are important export markets. Wine is also exported to Belgium, France, Switzerland, Italy, Austria, Russia, Denmark, Sweden, China, Japan, various Caribbean islands, the Channel Islands, Ivory Coast, the UAE and Namibia. South African producers used to dump cheap wine on international markets, which decreased the image of South African wine. This is why total exports of wine are decreasing. Demand for organic wine is increasing internationally, but Argentina and Chile are strong competitors.

Export quantities are usually not large because domestic supply can still not fulfil domestic demand for organic products. Furthermore, export costs are high, especially for fresh produce with a short shelf lives. In addition, packaging of organic fresh produce for exports is perceived to be difficult and expensive. However, international demand for organic products is picking up, and export quantities are expected to increase when production increases.

The following bottlenecks in exporting have been found:

- Volume: especially smaller scale producers do not produce large enough volumes to export. Combining the volumes of small-scale farmers could be a possibility for them to export, although it may be risky to put together a container with fresh produce from more than one producer: if a sample on one pallet from one producer is rejected by PPECB because of disease or quality, the whole container is rejected.
- There is no export-oriented organic packaging house.

- The costs of exporting are high because of transport and packaging costs; this applies especially to perishable products that have short shelf lives, which are shipped by airfreight.
- Finding business contacts in Europe is difficult, especially for smaller scale farmers.
- Quality standards are quite high in the European market, and the inspections before export are quite strict. This is especially difficult for smaller scale producers.
- There is a higher risk of organic fresh produce perishing than for conventional products because of a different treatment.
- Smaller scale producers are not familiar with exporting: legislation, certification and the other paperwork is difficult for them. They could hire intermediary organisations to assist in coordinating their exports, but this would greatly increase production costs.
- Consumers in the USA and Europe are aware of and act on such environmental issues as CO2 emissions.

Despite these bottlenecks, it is still appealing for producers to export if they can produce sufficiently large quantities, because the price premiums for organically produced products are said to be larger on international markets than on the domestic market. Although most importers are price setters, they mostly pay a fair price for organic products.

Managing relationships between producers and importers and between exporters and importers is said to be very important. Trust needs to be built up to establish good and long-lasting working relationships between the traders. One way in which trust can be built up is by providing exporters in the RSA with information about the status of their product when it arrives at its destination. Other important factors influencing the choice of an importer are the prices received and the ways importers handle the administration. South African exporters are, for instance, interested in knowing for which price their product, or a comparable product, is sold on the final market.

#### 3.5.4 Price setting

Some people perceive large retailers or importers abroad to be price setters, while others think that retailers and importers are very reasonable with regard to the prices they pay to producers/traders. It became clear from the interviews that there are differences in the negotiating power of producers/traders with regard to the prices received for their products and delivery contracts agreed

upon (e.g. with retailers). It seems that producer negotiating power depends on the following conditions:

- Supply shortage: when supply is low and demand is high, producers have a relatively high negotiating power. This especially counts for highly demanded niche products.
- Quality of production: small-scale producers sometimes have difficulty delivering the required quality.
- Volume of products supplied to retailers: the larger the volumes and the greater the continuity of supply, the higher the negotiating power.

In order to increase negotiating power, it was suggested by many stakeholders that small-scale producers should team up with larger scale producers or with conventional producers.

# 4 Horizontal integration and cooperation

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## 4.1 Introduction

Organic producers in the RSA are often not organised to tackle prevalent problems such as being able to supply large enough volumes to retailers or exporters or to increase negotiating power in order to receive better prices for their products. There are several ways in which organic producers in the RSA are organised to ensure that their interests are better served: through commodity boards; through cooperatives or private limited companies; through platforms; and through establishing alliances with other producers, such as contract farming, out-grower relationships or more informal cooperation.

## 4.2 Commodity boards

Several commodity boards in the RSA have the goal to serve the interests of organic producers of fruit, vegetables or wine. They are either voluntary or non-voluntary, and they never focus solely on organic producers.

The following commodity boards are relevant for this research:

- Wines of South Africa: an independent, not-for-profit company that represents all exporters of South African wines and promotes these wines abroad.
- The Citrus Growers Association of Southern Africa: represents the interests of citrus producers that export. All citrus producers and exporters must be members and must pay a statutory levy.

The Fresh Produce Exporters' Forum (FPEF) is a non-profit industry organisation. Membership of the FPEF is voluntary and open to all companies that export fresh fruit from the RSA.

## 4.3 Cooperatives

Some organic citrus producers have formed two organic citrus cooperatives in the Eastern Cape. The Sundays River Citrus Company (SRCC) is a company formed by conventional and organic farmers, for which SSRC arranges the mar-

keting of their products. The Sundays Organic Growers Association is the body of organic farmers within the SRCC. The SRCC was initially a cooperative but has since been converted into a private limited company. SRCC has become the largest packager and marketer of citrus in southern Africa. It has increased its production from 20,000 cartons in its first year to 8.5m. cartons packaged and exported in 2006, which equals 12% of the total South African citrus production (SRCC, 2008). This company does not use any out-growers as it prefers full membership, but the number of members and the volumes of production are expected to increase in the coming years.

The Sun Valley Bio Fruit cooperative consists of eight organic farmers with a total area of around 520 ha who produce citrus such as lemons, navels, Valencias and clementines (MIO, 2008). The cooperative also arranges the marketing of the products for its members. They have been growing in production volumes for the past three years, a trend that is expected to continue in the coming five years. The cooperative exports its products to the UK.

There are also cooperatives for wine growers, such as the Boland cooperative near Paarl. But again, they are not fully organic, but cooperatives in which some of the members produce organic grapes and wine. The Boland cooperative offers space in wine cellars for its members and produces bulk wine from the grapes that are not used by their producers for their own brands. Members pay the cooperative per volume produced. The Boland cooperative currently has 116 members, of which 20 are large-scale farmers; the rest are small-scale farmers. All its wine is exported.

Another form of cooperation is presented in the activities of the Ezemvelo Farmers Organisation in Kwazulu Natal, where more than a hundred small organic farmers are working together to grow indigenous vegetables for the South African leading organic retailer Woolworths (Auerbach, 2008).

#### **4.4 Platforms for organic farming**

There are many platforms for organic agriculture in the RSA, and each has a slightly different focus. The following platform organisations have been found (see also appendix 3):

- The Organic Agriculture Association of South Africa (OAASA) aka Organics South Africa (OSA), a non-profit organisation that was established in 1994. OSA 'serves to promote and enhance organic agricultural practices, to increase the awareness of sustainable farming methods and to assist in the

recognition of the natural relationship between soil, plant, animal and mankind' (OSA, 2008). It currently has 300 members.

- The African Organic Farming Foundation (AOFF) is a non-profit organisation founded in 2001. AOFF's mission is 'to reduce poverty among Southern Africa's rural communities through the introduction of organic farming, better nutrition, agro-enterprise development and management of natural resources' (AOFF, 2008).
- The Biodynamic Agricultural Association of Southern Africa (BDAASA) is a non-profit voluntary organisation of individuals who practise and/or support the practice of biodynamic farming or are simply interested in learning more about biodynamic farming' (BDAASA, 2008). It currently has 43 members, although none is Demeter certified.
- Go-organic was established to 'educate and increase the acceptance of organic methods in the RSA and facilitate trade between makers, sellers and users of organic products, thereby improving consumer health and well-being, whilst providing a fascinating business arena in which to be involved' (Go-organic, 2008). On their web site, searches can be performed for organic producers, traders and other companies involved in organics. Not all organic producers can be found on this web site (possibly because a listing costs money) and some information on the web site is outdated. Go-organics is seen as a great tool, but also as a threat to suppliers as it seems intent on taking over intermediary roles in the organic chains.

Although there are many platform organisations for organic farming in the RSA, the general perception of the interviewees is that these organisations are inactive and do not function at the moment. None of the platforms takes the lead in developing the organic sector further, and the platforms do not work together. The producers indicate that the reasons for this could be the general lack of policy interest in organic farming, and the fact that organic farming is not subject to any legislation. According to the stakeholders, platforms should have a larger role in representing the sector effectively, but they are not sure how this could be achieved, unless funding is increased (e.g. by the government) or NGOs take the lead on their own account.

#### **4.5 Short-term and long-term business alliances**

There are various types of alliances in which organic producers work together with other organic producers and with conventional producers in order to tackle



issues such as distribution, processing, packaging and reaching large enough volumes. Also, contract farming arrangements are found among small-scale organic farmers. These relationships are often bounded to specific production regions. Since distances in the RSA are generally large, producers try to work together with other producers or processors in their own regions.

One example in which organic production is organised in a cooperative initiative that meets Fairtrade standards is the production of Fairhills Merlot wine, which was started to benefit the local farmers of Du Toitskloof in the Breede River Valley Region and Du Toitskloof Winery of South Africa. Twenty-two farms and fourteen members are active in this initiative (Fairhills, 2008).

One of the activities promoting smallholder development is the Organic Freedom Project (OFP). OFP is a not-for-profit membership organisation aiming to 'promote job creation and sustainable trade in the region through the facilitation of organic farming, processing and marketing of organic products, including food, textiles and bio-fuel' (OFP, 2008). Their approach mainly focuses on previously disadvantaged people. In this project, organically producing smallholders are connected to retailers in the RSA to establish 'reliable organic production and supply' (Auerbach, 2008), but there will also be a focus on export markets. Within OFP, the distributor is not supposed to earn more than the grower, as everyone is to receive a fair share.

An example of the formation of business alliances related to exporting to the EU and the USA is the project in which the BioSwiss company invested in Kwazulu Natal to be able to export deep-frozen vegetables to Europe and the USA (ibid.). BioSwiss invested in production farms and in establishing a freezing facility. It also organises plant programmes for emerging black farmers (ibid.).

Trust was indicated as the most important issue in establishing relationships. Many examples of a lack of trust that frustrated cooperation between various types of entities were found. However, the interviewed stakeholders saw a large potential to increase cooperation between organic and conventional producers in order to tackle issues of volume and negotiating power.

#### **4.6 Governmental support for organic agriculture in the Republic of South Africa**

There is no organic legislation in the RSA, although drafts were presented by the National Department of Agriculture in 1998 and 2001. These draft organic standards are based on the EU 2092/91 Regulations, the IFOAM standards and Codex Alimentarius. A draft version of the organic legislation is currently being

reviewed by the WTO. As a result of the lack of legislation, there is no watchdog to monitor organic standards, apart from the inspections of the certification bodies.

The government is perceived to be disinterested in organic agriculture, as no support such as subsidies for organic farming are granted to organic farmers. Agriculture seems not to be one of the government's top priorities, as most certified organic farmers are white and the government presently focuses on previously disadvantaged people. The general idea is that when more previously disadvantaged people start organic farming and become certified, the government will become more interested in organic production.

However, the National Department of Trade and Industry (DTI) asked the Institute of Natural Resources to conduct a study titled 'Fridge' (Fund for Research into Industrial Development, Growth and Equity). ZAR1.3m. (€0.13m.) was made available to conduct the study, and its recommendations are to be implemented by the government. The study focused on 'the value chain of the organic produce industry (sector), identifying development opportunities and constraints that exist in the production, processing and marketing of organic produce' (Auerbach, 2008). Part of the study assessed the regulatory and trade environment, executed a cost-benefit analysis, analysed benefits and opportunities, and worked on strategy development (ibid.). Preliminary strategies mentioned are the improvement of the legislative environment, the development of a representative sector body for lobbying and knowledge transfer, and supporting emerging organic farmers. Targeting consumers would also be a strategy. This study has been submitted to the DTI and is expected to be released in 2009.

Another example is that a provincial government is working on developing smallholders and enhancing organic production in the RSA. The Limpopo Market Lead Organic Project is supported by the Limpopo Department of Agriculture. In this project, the Limpopo Small Farmers Organisation implements five pilot projects. The results of this support and cooperation are, however, not yet clear.

#### **4.7 Knowledge, education and extension**

As certified organic production is relatively new in the RSA, knowledge is scattered and there is no organisation that has an overview or takes the lead in coordinating activities that could benefit the sector. Figures on traded volumes, incomes from sales and exports are not available, though the PPECB is working on a system that may identify exports as being organic or not.

#### 4.7.1 Skills/knowledge for producing organically

It is the perception that specific capacities related to organic agriculture are not yet well developed, and that research, education and extension systems have not yet sufficiently taken up activities related to organic agriculture. The reason given is that the government does not take an active interest in organic farming.

Especially the knowledge held by the traditional farming community is limited with regard to the possibilities of organic agriculture, and traditional farmers do not easily change practices. The need to use chemicals in production is a belief held many farmers, and it is difficult to persuade them to do without as they have been applying chemicals for around a century. However, even in the traditional farming community, some farmers have changed their mindsets about organic farming, and more and more farmers are considering converting part of their land.

As a result, the sector has seen an increase in organic farmers in the last 10 years, most of whom are proactive in finding solutions for their specific problems. These farmers often have found ways to supply domestic and international markets with good quality products, and relevant post-harvest activities are implemented well. However, these successful farmers are usually relatively large-scale farmers who have had relatively higher education. Smaller farmers are more often active in the local market for organic products, and are often not oriented towards exporting their products. Lots of small black farmers do farm organically by default, as they have never had access to chemicals, which is why there is a large knowledge potential among such small-scale organic farmers. However, other capacities of such farmers may be limited, limiting the potential to obtain internationally recognised certificates and contacts with traders.

Practical and fundamental knowledge of organic farming practices seems to be scattered and there is no institution that has an overview or takes the lead to coordinate and disseminate knowledge to the relevant target groups. The University of Pretoria, Stellenbosch and Freestate University are said to do research on organic supply chains, but it seems that their results do not easily reach producers as a target group.

Much fundamental and applied plant research and extension is said to be funded by private industries, which is why some farmers are a bit sceptical about the objectivity of the results. Especially smaller farmers seem not to be reached by extension activities, perhaps because they are harder to reach. It is also perceived that the quality of governmental extension services is not very good. An example given is that chemical industries are financing training institutes.

There is a parastatal organisation (the Agricultural Research Council; ARC) with the ambition to be a 'nationally and internationally recognised centre of excellence in agricultural science and innovation' (ARC, 2008). ARC will provide 'a strong scientific base and a broadly distributed technology transfer capacity to the entire agricultural industry in the RSA' (ibid.). ARC has 15 agricultural research institutes, some of which have research and extension programmes for organic agriculture (IFOAM, 2003). Still, farmers perceive that there is not enough research and extension related to organic agriculture which is funded by independent organisations.

There is technical knowledge available to organic farmers from importers such as the Dutch company EOSTA, which assists farmers by transferring knowledge of post-harvest techniques and import requirements.

#### 4.7.2 Local capacities for exporting

Especially among small-scale farmers, the skills required for the paperwork and logistics related to exporting are not well developed. Larger farmers have no difficulty in doing paperwork or logistics, or they know how to delegate this work to parties that specialise in doing the paperwork or transportation. The general reason for this is that these larger farmers have been active on export markets previously and they have higher education levels.

### 4.8 Economic development of smallholders in the Republic of South Africa

Many producers and other organisations are currently working on implementing the Broad Based Black Economic Empowerment (BB-BEE) policy of the South African government. In practice, this means that producers that have high enough turnovers must make their farm workers co-owners of their farms, for instance through shares.

Another aspect of the governmental policy to uplift previously disadvantaged people is land allocation. Examples have been found where these people were not educated as farmers. When educated farmers who have been in farming families for decades struggle to make their farms produce enough, land allocation is perceived to be difficult for people with no farming experience.

Funds have been made available from the Department of Agriculture for small-scale farm development, but one organisation leading such development programmes and acting like a catalyst of development has not stepped in yet, although some groups have become active in this respect. The risk now is that

established farmers may try to use their lobbying power to receive subsidies for activities that may not ensure the development of small-scale producers. On the other hand, small-scale farmers have no voice and no funding and cannot make the development change happen, even though there is a lot of potential for the economic development of smallholders.

Access for emerging farmers is generally not a problem, although transport for them is sometimes more costly because of smaller volumes and larger transport distances.

# 5 Certification and quality assurance

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## 5.1 Introduction

Certification and quality assurance are key issues for organic farming, as is communicating organic values to buyers and consumers. First, an overview is presented of certifiers that certify organic farming and their connections with European certifiers. After discussing the perceptions of farmers regarding certification, quality assurance is treated, followed by a section on Fairtrade certification, as such certification is potentially very relevant to the organic sector in the RSA.

## 5.2 Organic certifying bodies in the Republic of South Africa

There are four organic certification organisations active in the RSA:

- The Bio-Dynamic and Organic Certification Authority (BDOCA), which is connected to certifier Debio from Norway. BDOCA has certified around 120 farmers.
- Control Union (CUC), which affiliated with the Dutch certifier SKAL.
- Ecocert-Afrisco, which connected with the French certifier Ecocert such that producers who wish to export to Europe can be certified accordingly. They also certify producers in other countries in southern Africa. They currently have 24 South African clients certified for the local market, but the bulk of their work is certifying companies for international markets. It saw a 20% growth in 2007.
- Soil Association certification ltd, which is a certification organisation from the UK.
- SGS in the RSA.

More information on these certifiers is given in appendix 4.

Certification costs differ between the organisations, and depend on, for example, whether inspectors from abroad need to be flown in for inspections and whether or not the producer wishes to export. The contents of the certification also differ between the certifiers. For instance, when ISO 65 certification is included, this increases the costs of certification. Prices for certification range from ZAR3,000 to 6,000 (€250-500) a year. BDOCA seems to have been able

to keep its costs down (Walaga, 2003) and Ecocert-Afrisco has been stated to be focused on certifying groups of small farmers (IFOAM, 2003). Packaging houses can also be certified.

Producers enter and leave the organic sector continuously, and thus certification bodies see a lot of change in their clients. Producers also sometimes change organisations, because of the difference in the fees.

### **5.3 Perceptions of farmers regarding certification**

The average farmer in the RSA is perceived by certifiers to have a short-term investment strategy resulting in low motivation to convert to organic farming. In the certifiers' view, farmers perceive cost for certifications to be high and certification to be unnecessary at times.

Producers often find certification costs to be too high, especially when converting their whole farm. Many farmers therefore start by converting part of their farms to organic production and request certification accordingly. Or they stop certification as the price premiums do not cover the costs of certification (see also Epopa, 2006). This mostly applies to smaller scale producers. Large-scale producers who convert part of their land to organic farming to react to opportunities in the organic market have not expressed costs to be of a great concern. Certification is often also perceived to be cumbersome, and the administrative burdens related to certification are high (see also Epopa, 2006). Furthermore, some producers have expressed the wish for certifiers to become more active in promoting the organic sector, as the sector is not well represented by the available platforms.

### **5.4 Quality assurance**

As there is no legislation on organic production, private standards for organic production are implemented and inspected by certifiers. No national watchdog exists to check whether producers and certifiers stick to the legislation. This may result in organic products being offered on the South African market that have not been organically produced according to the private standards, as no law guarantees the production practices.

It is perceived by some that even though organic products are certified, there can be room for interpretation with regard to the activities that result in the claim 'organic'. One of the issues raised is pollution through the spraying of

surface water, as water bodies near farms are sometimes heavily polluted. When exported, the PPECB does hold inspections with regard to residues, but nationally one cannot be sure how residue-free an organic product is.

For exports, standards that count for conventional products also count for organic products, and inspections are very strict, for instance regarding residues. This is sometimes a difficulty for farmers, as organic products are more difficult to transport and extra efforts need to be made with regard to cooling to ensure a good quality product that can be exported.

## **5.5 Fairtrade certification**

Production under Fairtrade standards also takes place in the RSA, and this is becoming more and more important on the international markets, especially when combined with organic certification. According to the interviewees, the costs of becoming Fairtrade certified is quite high though (ZAR30,000, around €2,500), and Fairtrade premiums are under pressure because of an increase in supply. Streamlining organic and Fairtrade certifications is difficult, as the timing and coverage of certifications differ. For instance, Fairtrade inspections and certifications need to take place at the beginning of the harvest, while with organic certification the certification and inspection process takes longer and extends throughout the harvest. It would be of great advantage to the producers were these two certification procedures connected and were inspections done at the same moment and by one organisation.

BEE requirements are already taken up in Fairtrade standards, which apply to all Fairtrade certified companies in South Africa. BEE can also be used in communication strategies. Tesco's in the UK already requires suppliers in the RSA to produce according to BEE requirements, a fact that is communicated to consumers. It seems therefore that there is a potential to use BEE or related Fairtrade standards in marketing endeavours.



# 6 Product innovations

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## 6.1 Introduction

Producers in the RSA often have no difficulty in selling their organic products, as demand is usually larger than supply. However, producers do try to find ways to add value to their products in order to increase their returns, as premiums for organic products are not always paid for organic products on the domestic market. Various innovations have been found in the RSA in all four product groups that could be of interest to consumers in Europe. But again, achieving large enough volume levels would be an issue when exporting. Producers find that communication to consumers is of vital importance to increase the organic market in the RSA and beyond. One way of doing so is to have a stand at the annual Natural and Organic Products Exhibition. This exhibition also seems to be an excellent opportunity to test product innovations and receive feedback from consumers on their newly developed products.

## 6.2 Vegetables

The international market for processed and especially dried organic vegetables is big, as such products are used in food processing and food preparation industries. Producers in the RSA have noticed this and are orientating themselves towards processing activities, next to focusing only on the production of raw material. But as the national market is not saturated with regard to vegetables, most probably the national market will be served first, as an increase in transport costs will be avoided in doing so.

Freezing vegetables to export them is another opportunity investigated by some producers, although the technology needed to freeze vegetables is more expensive than that for drying. Therefore, producers are apt to choose drying techniques for processing, especially as demand for dried vegetables is high.

Next to drying and freezing, other processing techniques are used to develop new ranges of products from vegetables, such as vegetable jams, spreads or tapenades. These products, however, are not produced in large volumes and domestic demand is not yet saturated for these products. Therefore, it is questionable whether large volumes of such goods will be exported.

### **6.3 Fruit and processed fruit**

The only innovations with regard to fruit products are fruits that have been processed in one way or another. Processing techniques extend the shelf life of the products and add value, increasing the margins earned by producers. Fruit is dried, juiced and sometimes frozen, and then processed into products such as jams, coulis, sauces, cordial, tapenades, and liquors or as sweets in combination with chocolate. Citrus is also used for decoration purposes. New fruit varieties have not found to have entered the consumer markets in the RSA.

Organic juices in themselves are not product innovations, but there is a large potential to supply the European market for organic orange juices. This is because a large demand for especially organic orange juice exists from buyers in Europe who appreciate the prevalent high product and processing standards that are in place in the RSA. At the moment, the export of organic juice is limited, however, as creating large enough volumes for processing and exporting is an issue to be addressed. Furthermore, competition with other countries in the export of juice from other types of fruit could decrease the potential to export such juices to Europe.

### **6.4 Wine**

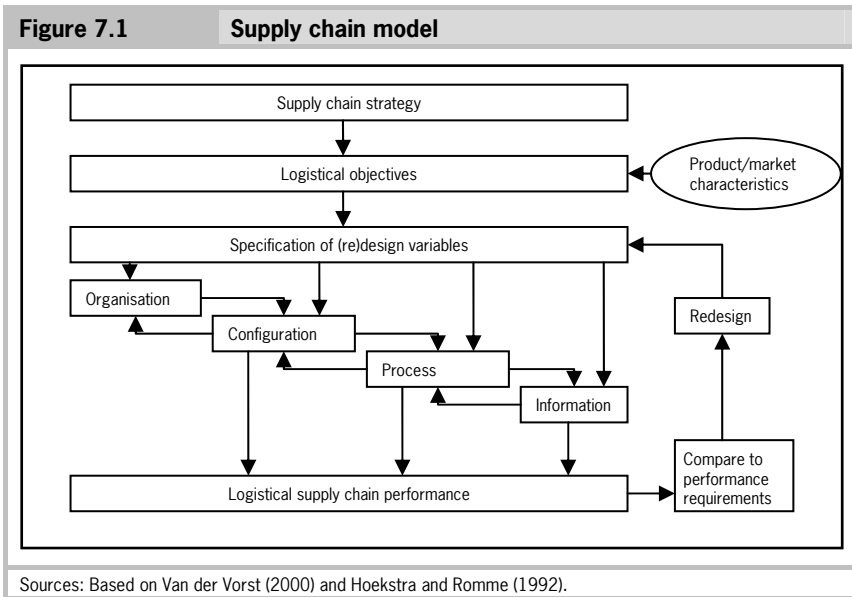
Producers experiment not only with the type of organic wine they produce but also with the way their wine is presented. New packaging is supposed to add value to their wines, and brand development is supposed to add value to the image of their products. Wine producers are very much export-minded and therefore do much research into export-market consumer perceptions of their wine. Therefore, they continue to develop new wine varieties to connect various consumer target groups to their range of wines. One example of such activity is the production of 'no added sulphite wines', a speciality product that is exported by Stellar Organics to the Netherlands, the UK, Germany and the USA.

Other markets are also sought for organic wine, such as tourist lodges, but so far this has not been seen to have growth potential, because wine selling to lodges is dominated by a few non-organic wine sellers, with a main focus on cheap wine.

# 7 Supply chain logistics

## 7.1 Introduction

Where possible in this section, information is provided on specifics of the supply chain of organic produce from the RSA to Europe or the Netherlands. In describing the supply chain logistics, we use the model of Hoekstra and Romme (1992) and van der Vorst (2000) as an analytic framework (see figure 7.1). This model states that when focusing on supply or demand chains and looking at the logistical aspects, four aspects have to be taken into account, namely the organisation within the chain; the configuration of the chain; the processes within the chain; and the information transfer or flow through the chain.



As can be seen in figure 7.1, the logistical objectives are derived from the supply chain strategy. Then, these logistical objectives form the input for the redesign variables. In this project we could describe the general strategy of the organic export chain from the RSA to Europe as delivering competitive (regarding product quality and price) organic products to the European market. For this project, we translate this into logistical objectives like establishing a closed

cooled chain to obtain maximum product quality upon arrival on the European market.

The logistical objectives have their impact on and influence the actual logistical design. This logistical design can be characterized by four connected aspects. When analysing a chain we start with the logistic organisation of the chain (which chain member carries the responsibility?). Next, the analysis of the chain configuration takes place (which entities form the chain, how are the product flows organised, where do they keep stock, which handling processes take place?). After that you look at the processes (how do they make the planning, how do they order, how do they predict the demand?). The last step focuses on the information system and flow (what kind of information is used throughout the chain?).

At the end of this framework some key performance indicators are defined. When you make changes within the chain, you have to measure whether these changes contribute to the logistical and chain goal(s).

In this section we use this framework to analyse the chain of organic products in the RSA based on the logistical goal to see whether in the current situation a closed cooled chain can be implemented. The focus is on the chain configuration. The processes, organisation and the information are of course also important, but as this is a quick scan analysis, we focus on these aspects because first of all the configuration - the hardware - must be in place (and, of course, the products must be available) before you can start shipping products of competing quality to Europe.

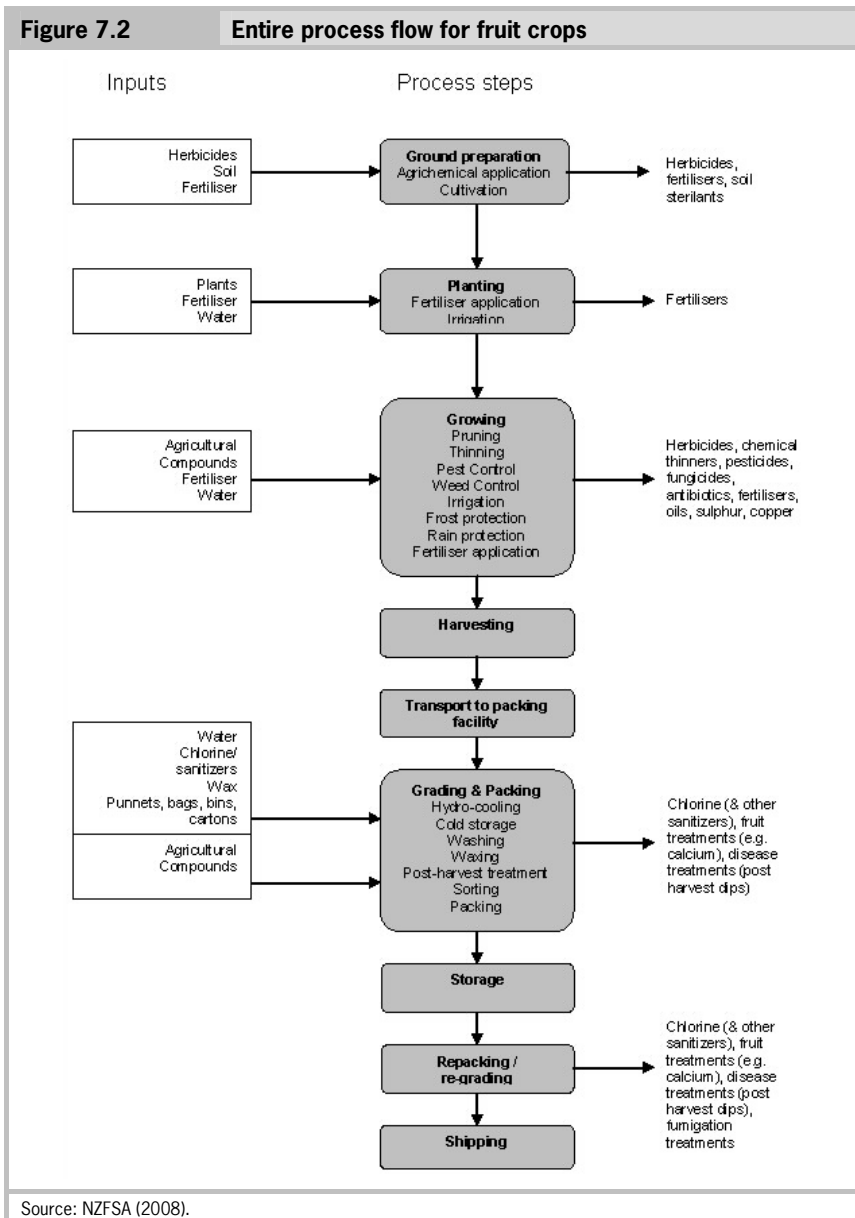
## **7.2 Chain configuration**

When analysing the chain configuration, two aspects have to be taken into account: the activities and the products that go through the chain. Within the chain of fruit and vegetables, the main activities within the 'from field to fork' chain are presented in table 7.1.

<b>Table 7.1</b>		<b>Types of activities within the 'from field to fork' chain</b>	
<b>Activity</b>	<b>Extra information</b>		
Growing			
Harvesting			
Post-harvest activities	<ul style="list-style-type: none"> <li>- cleaning</li> <li>- sorting and grading</li> <li>- packaging and pre-cooling</li> </ul>		
Preparing for shipping (palletize)	<ul style="list-style-type: none"> <li>- cooled storage</li> <li>- loading reefer container a) or cooling truck</li> </ul>		
Transport (inland)	<ul style="list-style-type: none"> <li>- road transport (cooled, even when there are no reefers used)</li> </ul>		
Handling at the port	<ul style="list-style-type: none"> <li>- (with the exception of custom formalities, et cetera)</li> </ul>		
Transporting to the port and transportation by sea needs reefers	<ul style="list-style-type: none"> <li>- as an alternative you could make use of cooling trucks and stuff the products in reefers in the port (this is not optimal because you interrupt the cooled chain and cooling trucks are less efficient at cooling products)</li> </ul>		
Transport (international)			
Handling at the port	<ul style="list-style-type: none"> <li>- unloading the ship and possibly putting the goods in another means of transport, for example from reefer to cooling truck. In practice, this will not be done a lot</li> </ul>		
Inland transport in the importing country	<ul style="list-style-type: none"> <li>- to distribution centre of the importer/retailer</li> </ul>		
Handling importer/retailer	<ul style="list-style-type: none"> <li>- in general, quality checks after unloading the reefers. They sometimes repackage products</li> </ul>		
Distribution to the stores			
Sales/storing at the stores			
a) A 'reefer' is a refrigerated container. Source: Based on Faulkner et al. (2001)			

The entire process flow for fruit crops is shown in figure 7.2. In this research, we do not focus on the first steps in the process flow (e.g. ground preparation, planting, growing and harvesting) and we do not analyse the post-harvest treatments, packaging types, and so on. Our focus is on the logistics, particularly the physical distribution, from post-harvest activities onwards until shipping for export to Europe. Furthermore, we focus on deep-sea transport using containers, as most exported products from RSA are shipped this way because the price for shipping by airfreight is ten times higher (in October 2008,

shipping a kilogram by air cost around \$2.50, while shipping by sea cost approximately \$0.25 (Froy, 2008).



## 7.3 Product and production process description

When looking at fruits and vegetables, and especially perishables, it is important to know which products you are looking at and which production processes take place. The latter is important because most of the processes influence the shelf life of the product. And as we know, the shelf life of a product determines for a major part the transport modality to use.

As explained before, this study focuses on four product categories: fresh fruits and fresh vegetables, processed fruit (including juices) and wine.

### 7.3.1 Fresh fruit and fresh vegetables

The transportation mode of fresh fruits and fresh vegetables greatly depends on the characteristics of the product and the import market. Transportation by air is applied when:

- Shelf life is very short. For example, organic soft fruit like blueberries, cherries, strawberries and raspberries.
- The product is a high-margin product. High-margin products, both fruits and vegetables, can bear the higher costs of air transport. This does not mean that the product characteristics also demand air transportation. Often these high-margin products are also niche products with small market volumes. Loading a 40 ft container with 22 or 23 pallets of this product will be too much for the existing market. The combination of low volumes and high margins leads to air transport.

Commodities with a durability that can withstand a transport duration of 18-20 days and still have a shelf life of 7 days can be transported by sea (reefer containers). Most common are apples, pears, oranges, grapes, onions sprouts, sweet corn, et cetera.

However, the current technology of containers (modified atmosphere and even controlled atmosphere), cooling techniques (vacuum cooling, forced air cooling, et cetera) and packaging (new types of micro-perforated liners, MA boxes, et cetera) in combination with post-harvest techniques and choice of cultivar make possible a modal shift from air to sea.

Regarding organic produce exports from the RSA the most important issue is gathering the right volumes. To ship by sea you have to fill a 20 ft or 40 ft. reefer container. When volumes are too small, which interviewees indicated to be an issue, it is possible to:

- Combine products of different organic producers within one shipment. But then transport temperatures of such combined shipments need to be suitable for all products transported.
- Combine organic products with the same but conventionally produced products. In the RSA, combining organic products with conventional products for export purposes is allowed by PPECB; it is also allowed by organic certifiers, but only when the organic products are sealed.

In general it is impossible to say if fruit or vegetables can be shipped to Europe using deep-sea shipping. It depends, as mentioned above, on the product type, the cultivar, the post-harvest treatments, et cetera. The only thing that can be said in general is that products with a long, or a long enough shelf life can be shipped using deep-sea shipping in reefer containers. And in the near future there will be a shift towards more and more deep-sea shipping because of new technologies in harvesting, cultivar and grower selection, post-harvest activities, and packaging and container technology.

<b>Table 7.3</b>		
<b>Types of products, their shelf lives and their transport possibilities</b>		
<b>Type</b>	<b>Shelf life</b>	<b>Sea transport</b>
Fruit and vegetables	Long	Yes
Fruit and vegetables	Short	No

### 7.3.2 Processed fruit and juice

When talking about processed fruit we can differ between semi-processed fruit and processed fruit. This distinction has an impact on shelf life and logistics.

Semi-processed fruit products are manufactured in order to be delivered to industry processing centres (in the fruit producing country itself or in importing countries), where they will be turned into consumer-oriented finished products (jams, jellies, syrups, fruits in syrup, et cetera). The following categories of semi-processed fruit products are defined:

- Fruit pulps: semi-processed products, not refined, obtained by mechanical treatment (or, less often, by thermal treatment) of fruit followed by their preservation. Either whole fruit, halves or big pieces are used, which enables easy identification of the species. Pulp can be classified into boiled or non-boiled (raw).



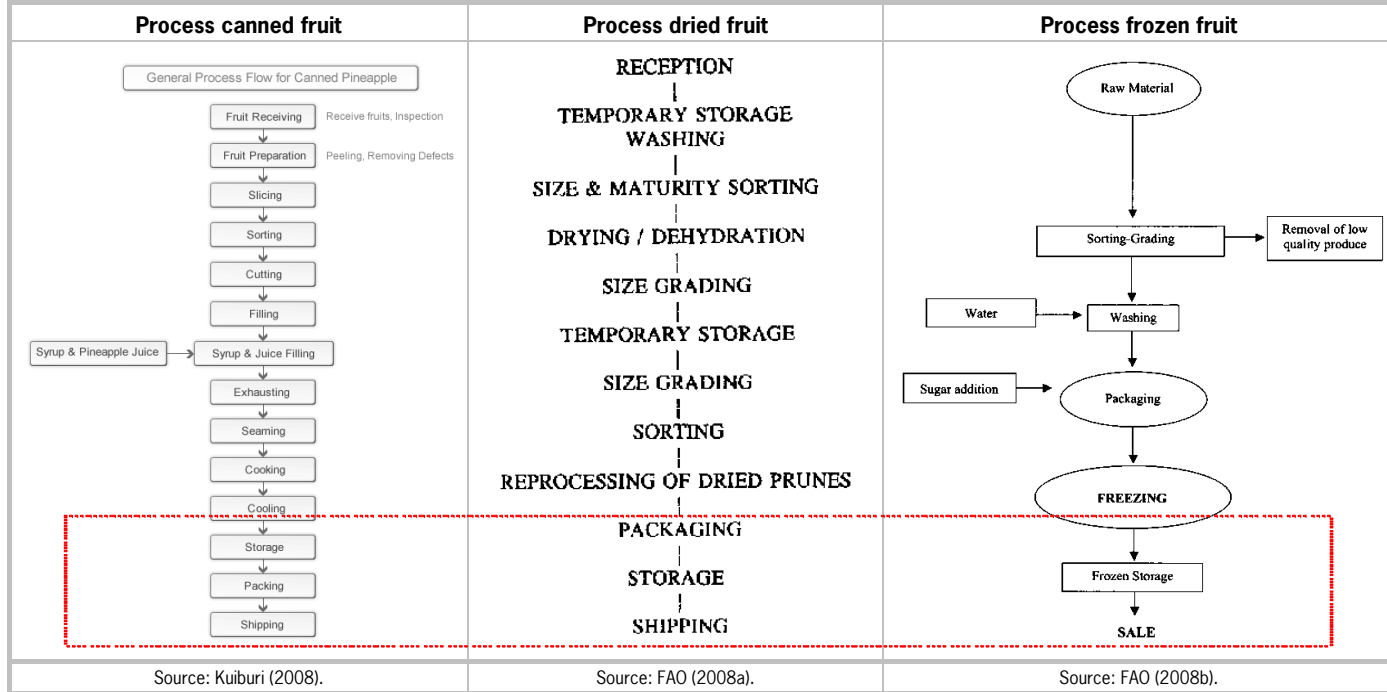
- Fruit 'purées-marks': semi-processed products obtained by thermal and mechanical treatment or, very rarely, raw and then refined, operations by which all inedible parts (cores, peels, et cetera) are removed. Purées-marks are classified into boiled (the more usual case) and non-boiled (raw).
- Semi-processed juices: products obtained by cold pressure or, very rarely, by other treatments (diffusion, extraction, et cetera) followed by preservation (see the section on juices below).

Most semi-processed fruits (pulpes or purées-marks) probably have a keepability that makes possible transportation by sea. Most of the time, the preservation lengthens the self life enough to withstand several months. For example, the pulpes will often be frozen to lengthen the shelf life and make possible transportation by sea.

Processed fruit can be divided into fresh-cut, canned, dried and frozen fruit. Figure 7.3 shows the flow chart for the canning, drying and freezing processes.

As shown by the three processes from fresh-cut to frozen or dried, there will be some extra processes within this flow chart also depending on how the product is frozen/dried. Canning relates to methods of packaging the product (adding some syrup and juice). Most interesting regarding logistics, the shelf life becomes longer when fresh-cut fruits are turned into dried, frozen or canned fruits. Extending the shelf life of products allows the possibility to ship the product to Europe by sea.

**Figure 7.3** Activities in canning, drying and freezing products



The shelf life of fresh-cut fruits is very short. Besides colourings also other processes start almost immediately after cutting, leading to decay. Of course, there are all kinds of developments regarding modified-atmosphere packaging, which lengthens the shelf life of, for example, fresh-cut fruits. However, products for export are not often packaged into consumer units in the producing country. Considering logistics, doing so adds a lot of costs to the product because of the inefficiency of transportation (transporting relatively more air) and the modality; even modified-atmosphere packaged fresh-cut fruit still has a shelf life that is too short to ship it by sea and still have a keepability of 7 days upon arrival at the supermarket outlet.

<b>Table 7.4</b>		
<b>Types of processed fruit products, their shelf lives and their transport possibilities</b>		
<b>Type</b>	<b>Shelf life</b>	<b>Sea transport</b>
Pulps, purées-marks	Long	Yes
Frozen, dried, canned	Long	Yes
Fresh-cut	Very short	No

Juices are a variant of processed fruit. For logistical analyses it is important to know what is meant by 'juices'. Juice types, their shelf lives and sea transport possibilities are presented in table 7.5.

<b>Table 7.5</b>			
<b>Types of juice products, their shelf lives and their transport possibilities</b>			
<b>Type</b>	<b>Description</b>	<b>Shelf life</b>	<b>Sea transport</b>
Fruit juice (fresh and pure)	Fruit juice is the extracted juice of fruit that has not been concentrated. This product is located in chilled cabinets and has a shelf life of a few days. The bottles or cartons are packaged in bigger units and palletized. Because of the very short keepability the product, when exported, is transported by air.	Very short	No
Fruit juice (pure)	Fruit juice (pure) is the same as fruit juice (fresh and pure), except that the product is pasteurized (very briefly) to lengthen the shelf life. The bottles or cartons are packaged in bigger units and palletized. Because of the	Short	No

**Table 7.5****Types of juice products, their shelf lives and their transport possibilities**

Type	Description	Shelf life	Sea transport
	still very short keepability, the product, when exported, is transported by air.		
Fruit juice from concentrate	Fruit juice from concentrate is juice that has been concentrated and then restored to its original state by the addition of water. It must taste and have analytical characteristics at least equivalent to those of an average type of juice obtained from fruits of the same kind. Fruit juice from concentrate is normally located on shelves but may also be sold from chilled cabinets and will have a longer shelf life than fruit juice. The bottles or cartons are packaged in bigger units and palletized. Because of the relatively short keepability, the product, when exported, is transported by air.	Relatively Short	No
Frozen concentrated juice	Within the production processes for frozen concentrated juices, after pasteurisation using heat it is run through a hot evaporator, which sucks out most of the water content. The result of this evaporation is a frozen concentrate. This concentrate can be stored in industrial freezers for several years. Transportation of frozen concentrate is done by sea using containers.	Long	Yes
Fruit nectars	Fruit nectars are products obtained by adding water and sugar and/or honey to fruit juice, fruit juice from concentrate, concentrated fruit juice, dehydrated/powdered fruit juice, fruit purée or a mixture of these products. This produce is located on shelves or in chilled cabinets.	Short	No
Concentrated fruit juice	Concentrated fruit juice is the product obtained from one or more kinds of fruit juice by physically removing a specific proportion of	Long	Yes

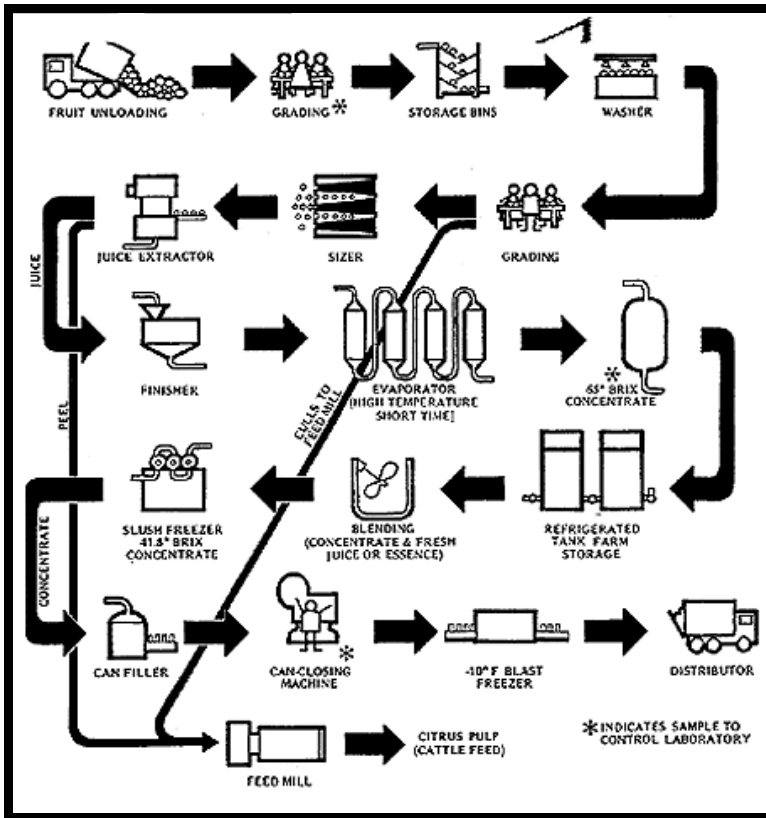
<b>Type</b>	<b>Description</b>	<b>Shelf life</b>	<b>Sea transport</b>
	the water content. It is necessary to dilute this product with water before consumption.		
Dehydrated/ powdered fruit juice	Dehydrated/powdered fruit juice is the product obtained from one or more kinds of fruit juice by physically removing virtually all the water content. The resulting product is in powder form and requires the addition of water before use.	Long	Yes

Again we can see that different processing methods lead to different shelf lives, and it is the shelf life that largely determines the possibility to transport the product to Europe by sea or air.

The following diagram shows the process by which frozen orange juice is made. It is shown here for two reasons: to show that within the process of making frozen orange juice, logistics (physical distribution) plays a minor role, and that transporting frozen orange juice or frozen pulps/purées-marks is one of the most common methods to transport processed fruit over a long distance. Not only the shelf life is suited for sea transport, also the extraction of water makes transportation less costly.

Figure 7.4

The process by which frozen orange juice is made



Source: UoF (2008).

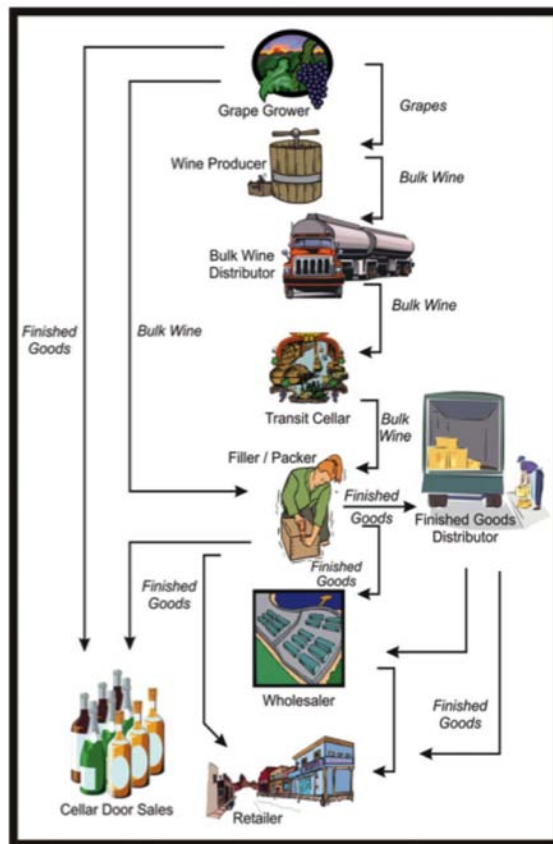
### 7.3.3 Wine

Wine is in most instances transported in bottles that are packed six to a box and then palletized. Because of the long shelf life of bottled wine, transportation takes place by sea (there are of course some exceptions: very exclusive wines are transported by air).

One major development in selling and transporting wine is the concept of bag-in-box. Consumers can buy 3 litres of wine packed in a bag, which in turn is packed in a cardboard box to protect it and to make transportation easier. As mentioned, these are consumer packages. However, there are also 1000 litre bag-in-boxes filled with wine that are bottled in the importing country. In this

process the wine is sent from the bulk distributor to the transit cellar where the wine is prepared for onward sale and filling. The transit seller sends batches of bulk wine to the filler/packer. The filler/packer receives containers of bulk wine from the transit seller or bulk distributor and then transfers the wine into different kinds of containers, such as bottles, bags, kegs or barrels. The next step is the packaging of the containers. Thus, the filler/packer upgrades not only in terms of marketing the product, but also in terms of bottling according to the appropriate regions, tastes and specifications.

**Figure 7.5** Wine supply chain



Source: Duke University (2008).

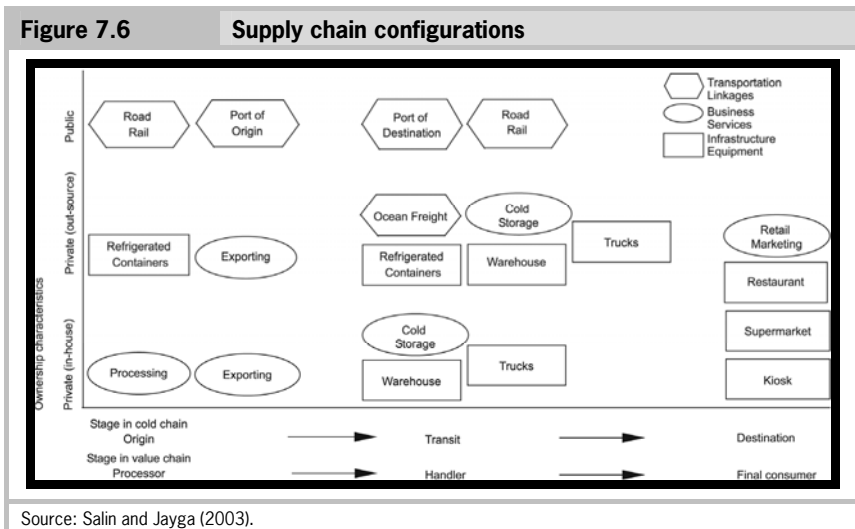
As mentioned, wine is mostly transported via deep-sea shipping. Developments in transport packaging are lowering the cost by using less packaging material (bag-in-boxes instead of glass bottles), which reduces the volume and weight transported.

#### 7.4 Logistical critical control points in selected chains

The challenge for the export of organic products from the RSA to Europe is to ensure that a qualitatively excellent fresh product arrives in Europe. This also means that the challenge will be in exporting fresh products because processed fruits and wine - which have long shelf lives - are relatively easy to ship as they do not depend on conditioned transport.

Using the model of Hoekstra and Romme (1992), we focus in this analysis on the chain configuration. Chain configuration can be divided into (see figure 7.6):

- Entities or chain members and activities (transporting, storage, processing/value adding, handling).
- Infrastructure (rail, road, water, air) and modes of transportation (truck, train, boat, airplane).





For the export chain of fresh organic products it is absolutely necessary to keep the cold chain as closed as possible. Looking at the entities, activities, infrastructure and modes of transportation, the critical control points are:

- Changing from one chain member to another (is unloading and loading of cargo involved? Is stock keeping needed? What are the waiting times?).
- Which transport modality is used (speed in relation to conditioning)?
- Facilities (especially cooling the product before loading, cold storage facilities, means of transport).

In general it can be stated that it is absolutely necessary to have:

- *Enough cooling and cooling facilities.* This means not only enough cubic metres but also a sufficient and consistent power supply within the producing regions.
- *Good and proper pre-cooling.* Cooled trucks and reefer containers are not able to cool a product down. They are designed to keep the cold product at the desired and preset temperature. Thus, the products must be properly pre-cooled.
- *Cooled transport must be available.* Trucks must have enough capacity to keep the products cool even during the hottest moments of the day. This means not only well-functioning refrigerators but also very good isolation (when isolation is bad, the cooling equipment has to cool too hard, which can lead to frost damage).
- *Availability of containers and gensets.* Besides the availability of trucks equipped to transport reefer containers (equipped with proper power supply, or otherwise making use of a genset), it is of course necessary to have enough reefer containers, also during peak citrus and grape seasons. Ensuring that there are sufficient numbers of reefers in various parts of the world is a difficult task for the big shipping companies like Maesk, Hamburg Sud and MSL. In the near future there will probably be a worldwide shortage of reefer containers - or, more precisely, a shortage of possibilities to ship the reefer containers, as most containers ships are written off and must be replaced. Unfortunately, the building of these new (and still bigger) ships cannot keep pace with the number of ships that are being taken out of service.
- *Correct and precise loading of trucks and containers (handling).* The availability of cooled trucks or reefers does not guarantee the good cooling of the product. Protocols of how to load trucks and containers must be available. For example, people often pre-cool the container. However, when the empty container is opened for loading, warm or hot air will be sucked in, not

- only increasing the temperature, but also causing moisture to settle in the container - which is bad for most fruits and vegetables.
- *Good power supply at the port.* Cargo usually has to wait in the port before shipping, and therefore reefer containers must be connected to the power supply.
  - *Conditioned facilities at the port.* The consolidation of cargo takes sometimes place at the port (unloading cooled trucks and loading the reefer container). This consolidation has to take place in a conditioned facility in order to maintain the cooled chain.
  - *Right distance to the port.* Even when all the above is in place, when transit times from the farm or the packaging station to the port are several days, this makes the total shipping time too long. Shipping from the RSA to Europe will take up to 12 days. The product will generally be at the port for 2 days, and customs also needs 2 days. After arriving in Europe, it will take as long as 2 days before the product arrives at the retailer's distribution centre and another day before it is in the shops, and then it must have an average shelf life of 7 days. So the total time from the port until the consumer buys the product will be 19 days in transit and 7 days of shelf life in the store, which adds up to 26 days. If inland shipping also takes, say, 5 days, the total shelf life must be 31 days - and that is a lot for fresh organic products (on average).

## 7.5 Bottlenecks in logistics

The findings in this section are based on the feedback received during the field trip to the RSA in October 2008.

The RSA is a developed country with respect to its infrastructure, power supply in the major producing regions, et cetera, and there is already a lot of knowledge regarding the production and export of regular (i.e. non-organic) products all over the world. In addition, the availability of cooled trucks, reefer containers, cooling facilities, et cetera is both well developed and well organised. Lastly, the production of organic produce suited for export is often done by big farmers who also produce conventional products. In this respect no major bottlenecks are foreseen when looking at the export of organic products regarding logistics.

With regard to the cold chain and the activities to keep it as closed as possible, producers, shippers, et cetera have already taken measures. Ships, for example, are loaded at night (when it is cooler) and phytosanitary checks are

performed at the farm before loading the truck or reefer, which means that the truck or reefer can be closed and sealed. Reefer containers and gensets are almost always available.

Some bottlenecks with regard to logistics have been found in the RSA:

- Distances to processing facilities for organic products or harbours are sometimes large.
- In rural areas, the distance to the main road is sometimes too large.
- The train system in the RSA could be improved, especially with regard to its management (the infrastructure is present). At the moment, it is no real alternative to road transportation.
- The availability of reefer containers during peak seasons is sometimes less than sufficient.
- It is sometimes difficult to manage the cold chain because of weather conditions, transit times, et cetera.
- Checks by customs take place at the port, which can interrupt the cold chain.
- Volumes of organic products are sometimes too small to load a 40 ft or even 20 ft container. In the RSA it is possible to mix loads, that is, organic and conventional products. Because of this, volumes are no real issue or bottleneck from a theoretical point of view. In practice, however, the organisation of the mixing of loads is a difficult task for producers who do not produce large enough volumes to fill a whole container. Difficulties that arise are various storage requirements for different products (e.g. temperature), as well as having the contacts to start cooperation in this respect and arranging the logistics to get the products in one place at the same time.
- When the distance is more than 2 hours, a genset is needed. But, as stated, it is 'not a must as there is no legislation'. Perhaps this is the biggest threat or bottleneck, because this can lead to a manipulation of the cold chain. Absence of cooling will lead to bad quality. This bad quality, however, will only be noticed at the end of the supply chain. When manipulating the cold chain during inland shipping, the effect will not reveal itself upon arrival at, for example, the port. It would be good to implement a norm.

## **7.6 Market possibilities versus logistics**

The market potential for South African fruits and vegetables in the Netherlands/Europe is large, as shown in section 2. Fruits are showing an annual

growth of 8-9%, vegetables 10%, canned organic fruits 11%, and organic juices 15%.

Table 7.6 is a comparison between Dutch market opportunities for organic products and logistical requirements.

<b>Table 7.5</b>		<b>Comparison between market potential and logistical requirements</b>	
<b>Type of product</b>	<b>Market possibilities in NL</b>	<b>Shelf life</b>	<b>Sea transport</b>
Fruits & vegetables	Fruit + 8-9% Veg. + 10%	Long	Yes
Fruits & vegetables	Fruit + 8-9% Veg. + (10%)	Short	No
Pulps, purées-marks	?	Long	Yes
Frozen, dried, canned	Canned + 11% Frozen/dried?	Long	Yes
Fresh-cut		Very short	No
Fruit juice (fresh and pure)	+ 15%	Very short	No
Fruit juice (pure)		Short	No
Fruit juice from concentrate		Relatively short	No
Frozen concentrated juice		Long	Yes
Fruit nectars		Short	No
Concentrated fruit juice		Long	Yes
Dehydrated/powdered fruit Juice	?	Long	Yes

When taking logistics into account there are no real threats or hurdles to overcome before being able to ship these products to Europe. Shelf life of course is important when choosing the right transport modality. Deep-sea shipping will be no problem for fruits and vegetables that are commodity products with long shelf lives (i.e. organic fruit canned in the RSA and concentrated fruit juice frozen in the RSA). Even when it is necessary to use air transportation, all the right facilities such as infrastructure are in place in the RSA. Air transportation, however, is ten times more expensive than sea transportation.

# 8 SWOT analysis

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## 8.1 Introduction

We performed a SWOT analysis to establish the strengths, weaknesses, opportunities and threats of increasing trade in organic products between the RSA and the Netherlands. The main focus was on exports of organic products from the RSA to the Netherlands, as the Netherlands currently does not export organic products to the RSA and there are limited opportunities to start exporting organic products to the RSA.

The information on the strengths and weaknesses relates to characteristics within the organic sector that are either beneficial or disadvantageous for further trade development. Opportunities and threats specify external conditions that may positively or negatively influence the development of trade in organic products between the RSA and the Netherlands in the future. Where possible, these four elements of the SWOT analysis are specified with regard to one of the four commodities investigated in this report, namely vegetables, fruit, processed fruit and wine. Mostly, however, the descriptions apply to all four commodities.

## 8.2 SWOT analysis for increased exports from the Republic of South Africa

The results of the SWOT exercise for the potential of increased exports of organic products from the RSA to Europe, with special emphasis on the Netherlands is presented, are based on the information from the interviews with stakeholders from the organic sector and desk research that was presented in Chapters 2-7.

### 8.2.1 Strengths of the organic sector in the Republic of South Africa

The following strengths have been found within the organic sector in the RSA:

- There is an existing export market for organic vegetables, but exports mainly comprise organic fruit and wine. As current exporters are familiar with exporting, when demand and availability increase they will easily be able to expand their exports. Not all organic producers in the RSA know their way in exporting, however.

- Various climates in the RSA enable the production of a large range of products.
- There is a growing domestic market for organic products to fall back on when products are not sold internationally.
- Many organic products in the RSA are sold on the local market as non-certified organic products, so potentially enough volumes exist to increase exporting.
- Organic certification schemes accepted by foreign markets are implemented in the RSA.
- PPECB inspections before exporting are strict and synchronised with export market requirements.
- High product quality standards and processing standards are already in place in the RSA.
- Many existing organic farmers show innovative behaviour by experimenting with new products and packaging, et cetera.
- Organic producers are usually highly engaged.
- There are many smallholder farmers who produce organically by default.
- There is a counter-seasonal export potential for organic products such as vegetables and fruit.
- Production costs are relatively low in the RSA compared to the Netherlands. However, even though labour is cheap in the RSA, labour productivity is low, which results in relatively high labour costs.
- Supply chain logistics and infrastructure is well arranged and of high quality in the RSA.
- Containers and trucks are generally available.

### 8.2.2 Weaknesses of the organic sector in the Republic of South Africa

The following weaknesses have been found within the organic sector in the RSA:

- There are many platforms, but they do not coordinate or represent the sector. The size of the country may be an issue for the effective functioning of a platform.
- There are no data available about the organic sector; were such data available, foreign importers would know what types of products are available in the RSA and where to buy them. Producers would also have sector knowledge, and could establish business cooperation to improve their performance.
- There is no organisation that takes the lead in developing the organic sector in general or in facilitating exports.

- Labour productivity and quality is low in the RSA. Although labour is cheap, this results in relatively high labour costs, which has a negative impact on competition potential.
- Certification is expensive and cumbersome for producers.
- The risk of production and transport is higher for organic products than for conventional products.
- Consistency of supply can often not be guaranteed.
- Volumes produced are often too low for export purposes (e.g. for filling a container cost-effectively).
- Volumes produced are often too small to process organic fruit into fruit juice, decreasing the potential of exporting fruit juice as importers demand relatively large volumes.
- Conversion is hampered by a lack of financial resources.
- Conversion is hampered by the 'wrong' mindsets of conventional farmers who are used to using chemicals and have short-term investment strategies.
- There are not enough facilities to process organic juice, and volumes produced are often too low for organic juicing runs.
- Distances to processing facilities are sometimes large, which increases transport costs and may have an effect on product quality.
- There is no export-oriented organic packaging house in the RSA. Such a packaging house could facilitate larger volumes of organic products to be exported.
- Contacts with European importers are sometimes difficult to find for producers, especially those who currently do not export as relationships have not been established.
- Smaller producers often have no skills in exporting/logistics.
- Smaller producers often have no access to export markets.

### 8.2.3 Opportunities for increasing exports from the Republic of South Africa

The following opportunities have been found to further increase the exports of organic products from the RSA:

- The export of products that are not or are not easily produced in Europe such as tropical fruit (e.g. kiwi, banana), orange juice and dried vegetables for industrial purposes, as demand for these commodities in the Netherlands is not fulfilled at the moment.
- European consumers demand products that are both organic and Fairtrade certified. Expanding the range and produced volumes of combined organic and Fairtrade certified products could increase exports.

- In the UK, a large retailer requires its producers in the RSA to present the results of their BEE activities, and communicates this to consumers as a marketing strategy. Communicating BEE, for instance in combination with Fairtrade, could also add value to products exported to the Netherlands.
- Price premiums for organic products are higher on international markets than on the domestic market.
- Stakeholders have expressed the will to cooperate to develop the sector further. Such cooperation could support the capacity development of the sector and the lobby capacities on behalf of the sector, as well as potentially the communication of organic values to consumers.
- In some projects, organic producers are teamed up in order to establish a reliable production and supply to large retailers, also in some cases for exporting. Teaming up several organic producers, or teaming up organic producers with conventional producers, is therefore an opportunity to produce and transport large enough volumes for exports.
- Some importers in the Netherlands already communicate to exporters in the RSA about the state of their products upon arrival, and about the prevailing market prices. Increasing the building of trust between companies throughout the supply chains is seen as an opportunity to enhance the trade between the Netherlands and the RSA.
- Technical knowledge is available from Dutch importers and they are willing to share.
- Dutch institutes have a large knowledge capacity with regard to organic farming that can be used through cooperation with institutes in the RSA (building curricula) or directly in capacity-building projects.
- Logistical arrangements are similar for organic products and conventional products. Combining organic and conventional products in one container for shipment is possible in the RSA.
- The Netherlands functions as a hub within Europe in the trade in food products, and can continue to do so in the future.

#### 8.2.4 Threats that may negatively affect exports from the Republic of South Africa

The following threats have been found which may negatively affect export development of organic products from the RSA:

- There is no organic legislation in the RSA (a draft is being reviewed) with the result that there could be room for interpretation about organic products that could negatively impact the image of organic products from RSA.



- Competition with other countries such as Spain (citrus) and Argentina and Chile (wine).
- Competition with the local market for organic products, as domestic demand is currently larger than supply, and low volumes of especially vegetables and fruit are available for exports.
- The shelf life of fresh products is sometimes very short. Transport by air is then needed (e.g. for soft fruit or top fruit), but this is very costly (ten times as costly as transport by ship).
- Education, research and extension with regard to organic farming are not sufficient.
- The price of paper is high as it is connected to the import price of paper, thus packaging has become very expensive.
- Importers in Europe prefer to buy unprocessed (or lightly processed) products rather than end-products.
- Certification procedures for Fairtrade and organics are not streamlined at the moment, resulting in unnecessarily high costs when farmers want to certify their products both organically and Fairtrade.
- Conversion takes several years, a period in which the incomes of producers drop while no premiums are received.
- Food miles and their related (CO<sub>2</sub>) emissions are becoming an issue for UK and other European consumers.
- The voice and negotiating power of especially small/smaller farmers is low.
- International markets do not accept RSA certification bodies.

### **8.3 The potential for increased exports from the Netherlands to the Republic of South Africa**

In this research, also the export potential for Dutch organic vegetables, fruit and wine to the RSA has been assessed where possible, even though such exports do not take place at the moment.

There is a low potential for the exports of organic vegetables, fruit and wine<sup>1</sup> from the Netherlands to the RSA because of the following reasons:

- Dutch organic vegetables and fruit would be relatively expensive on the South African market.
- The RSA exports most of its wine; no imports are required.

<sup>1</sup> Organic wine is produced in the Netherlands, although not in large volumes (Wijninfo, 2008).

- In the RSA, imports of organic vegetables are foreseen to be required off-season. This would be a counter-seasonal opportunity for exports of organic vegetables produced in horticultural and open field production systems in the Netherlands. However, imports of vegetables from other African countries would also be possible, and less expensive.
- There is said to be some opportunity to import apples and pears from the Netherlands, but as they can be stored for up to a year, they would compete with locally grown fruit or with cheaper imported fruit from other African countries.
- When wishing to export vegetables and fruit from the Netherlands to the RSA, it should be clarified first whether the Netherlands has bilateral phytosanitary agreements with the RSA for the relevant products.

Based on this information, it can be stated that there is a limited to non-existent opportunity for counter-seasonal exports of vegetables and fruit from the Netherlands to the RSA, because of the small volumes required and because of competition with countries where products can be produced at lower cost.

In the following section, the results from the SWOT analysis are synthesized, and recommendations are given to support the strengths, feed the opportunities, decrease the weaknesses and counteract the threats. As there is such a limited opportunity for increasing exports from the Netherlands to the RSA, this topic is only briefly treated there.

# 9 Observations and recommendations

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## 9.1 Introduction

In this section, the findings from this report are synthesized to come to recommendations to enhance the trade in organic products between the RSA and the Netherlands. As there are hardly opportunities for Dutch exports of organic products, this section focuses on the exports of organic vegetables, fruit and wine from the RSA to the Netherlands. Firstly, the results of the SWOT analysis will be synthesized. Based on this synthesis, recommendations will be given that can be used by the organic sector and organisations wishing to support the trade in organic products with the RSA.

## 9.2 Working on the strengths and weaknesses of the organic sector

The RSA has a large potential to increase its export of organic vegetables, fruit and wine to the Netherlands, as climatic circumstances ensure a broad variety of products, and many producers are very determined to increase and diversify their activities. Furthermore, there is a large demand for organic vegetables, fruit and wine in the Netherlands, which can be fulfilled by imports from the RSA as high quality standards and organic certification schemes that are accepted by import markets are in place in the RSA. Supply chain logistics is also well arranged.

One of the major issues to be addressed to be able to enhance the trade in organic products is the issue of producing large enough volumes for processing and transporting for export purposes. These volumes can only be produced when more producers convert to organic farming, or when producers team up to arrange combined processing and transportation. Also, smaller producers that are currently producing non-certified organic products could be certified to increase exportable production. The cooperation amongst producers would benefit from having a platform that would function as a broker, a representative of the organic sector and a vehicle for knowledge transfer. Furthermore, data on organic production and trade could improve knowledge and stimulate effective partnerships. Developing the skills of producers with regard to organic production, organisation and export could also increase the volumes produced and

exported. This could be supported through education, extension and capacity building.

### **9.3 Enhancing opportunities and circumventing threats**

Opportunities to enhance the trade in organic products between the RSA and the Netherlands are again dominated by the volume issue. Cooperation is the key to producing large enough volumes, as we have already seen, but some options are not used at the moment, such as combining organic products from various producers in one container for export. Other opportunities for the further development of the organic sector is the import of knowledge of organic farming and other skills, the combination of Fairtrade and organic certification, and the communication of BEE activities to consumers as a marketing strategy. Finally, it was indicated that government funding is available for agricultural development in the RSA. Stakeholders apparently do not use the funding because they are not aware of it or because they do not believe that they can successfully access such funding.

The largest threat to organic production and especially trade is that there is currently no national organic legislation in place, although a draft is being reviewed. Because of this, no watchdog monitors the organic sector, resulting in a situation where there can be room for interpretation with regard to the implementation of organic farming (especially for the local market). This may impact the image of organic standards in the RSA at the local level and has potentially created a gap between compliance with local criteria and the international requirements, which could complicate compliance for local producers that are new to the export business. Fortunately, there are certifying bodies in the RSA that are linked to European certifiers and follow internationally recognised regulations. These certification schemes could also be stimulated in a gradual way as a locally certified organic certification scheme to help local producers to comply with international standards. There are examples in other countries; for instance, in Latin America, where local private actors have promoted this strategy and created, step by step, local standards that meet international standards.

Certification is one of the factors that increases the costs of production and encumbers the producer, especially when more than one certification scheme is followed. Other high production costs (e.g. paper, and airfreight for highly perishable products) decrease the potential to compete with countries such as Spain. A final issue that seems to have become important for European con-

sumers is food miles and the related CO<sub>2</sub> emissions. Such consumer preferences may hamper the trade in products that can also be produced in Europe. Furthermore, the indication of CO<sub>2</sub> emissions on products on European markets could become a useful instrument for consumers to decide which products to buy, based on actual measurements instead of general perceptions. Costs of packaging may be decreased by intelligent designs of packaging and the use of less costly material, but pilots have not been successful up to present.

## 9.4 Recommendations

Based on the interviews and the results of the SWOT analysis, the following recommendations can be given to support the development of the South African organic sector and to enhance the trade between the RSA and the Netherlands. These recommendations could be acted upon by actors within the organic sector and/or by organisations that wish to support the organic sector or to trade in organic products:

- Finalise and implement the South African organic legislation or stimulate self-regulation within the sector for organic production, and establish a watchdog for organic production to monitor the implementation of the legislation. This would maintain or enhance the credibility of the organic sector among buyers.
- Stimulate systems that enable producers and traders to access data on the production and trade in organic products. This would assist organisations that wish to support the sector to target the right geographical areas, the relevant producer groups, and specific crops and products. It would also assist producers and other companies in the organic supply chains to find out who to contact and for which purposes, and would help producers to get direct access to market information on such matters as trends and potential buyers.
- Improve the representation of the sector by establishing/strengthening a platform organisation that functions as a broker, representative and a vehicle for knowledge transfer. As platforms already exist, one of them should to take the lead in coordinating the development of the sector. It is recommended to analyse whether this platform would be most effective when also organised on a regional scale or with regard to the type of crop produced (or both).

- Facilitate the increase in knowledge of organic production and logistics by helping the South African organic sector and knowledge institutes to work with Dutch institutes that are related to organic farming.
- Facilitate the establishment of contacts between South African producers and Dutch or European buyers in order to improve cooperation and the transfer of specific knowledge.
- Enable the capacity development of especially small/smaller and emerging farmers with regard to organisation skills and logistics, as well as with regard to technical knowledge of organic farming when they enter the export sector.
- Support the cooperation between small organic farmers and that between organic farmers and conventional farmers such that they can combine their production for export purposes and increase their negotiating power.
- Support the cooperation between producers and processors to establish cost-effective processing of organic products and to increase the availability of processed products for export markets.
- Assist non-certified small organic producers to become certified, potentially resulting in a price premium for their products and enhancing export possibilities because larger volumes become available for export markets.
- Analyse the potential of linking organic certification with Fairtrade certification. One of the issues here is to streamline the organic and Fairtrade certification procedures so that they can be combined at little additional cost.
- Investigate the possibilities to reduce the risks related to the production and transport (especially the cold chain) of organic products.
- Improve rail infrastructure management for transport to harbours in order to increase infrastructure potential.

# Epilogue

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Our mission to the RSA created a lot of enthusiasm among our interviewees in both the RSA and the Netherlands. Quite a number farmers and exporters took the opportunity to speak to us in order to learn more about the Dutch organic sector and to get into contact with Dutch buyers of vegetables, fruit and wine. Dutch buyers have expressed the wish to take concerted action to increase trade volumes sourced from the RSA.

The experiences in establishing contacts between various trade parties in the organic supply chains confirm our idea that trade relations can be made more effective by meeting the trade partners in person, resulting in the transfer of knowledge about the context the partner is operating in and the building up of trust in trade relationships.

After presenting the draft report to the interviewees from the RSA, we understood that the information obtained through our mission was already generally known by some of the parties involved in organic production and trade in the RSA. The reason we had not found this information is that publications were not available when we conducted our research. This feedback is valuable, however, as it validates our results.

A large challenge lies ahead to implement the recommendations made in this report in order to actually enhance the trade in organic products between the RSA and the Netherlands (or Europe). Fortunately, the global economic crisis has so far not affected the Dutch demand for organic produce.

Although this research resulted in a few new business relations between Dutch and South African companies, further steps are necessary in order to achieve a more effective realisation of new business between Dutch and South Africa traders. In this respect, we recommend an informal trade mission, which could optimise market potential by introducing demanding and supplying parties to each other.

## References and web sites

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ARC, Agricultural Research Council [www.nda.agric.za/docs/Digest2000/Digest4.htm](http://www.nda.agric.za/docs/Digest2000/Digest4.htm) (accessed 16/12/2008).

AOFF, African Organics Farming Foundation web site, [www.africanorganics.org](http://www.africanorganics.org) (accessed 16/12/2008).

Auerbach, *Organics South Africa, struggling a bit but planting many new 'seedlings'*. Organics South Africa, the Republic of South Africa, 2008.

Bakker, J., *Remarks from interviews with Dutch market parties in 2008/Analyses in project BIO-Monitor 2008*. LEI Wageningen UR, 2008a.

Bakker J.H., *BIO-Monitor 2008*. Biologica, Utrecht, Nederland, 2008b.

Bakker J.H., *Ontwikkeling wereldwijde consumentenvraag biologische producten*. LEI Wageningen UR, rapport 2008-006, 2008c.

BDAASA, The Biodynamic Agricultural Association of Southern Africa. [www.bdaasa.org.za](http://www.bdaasa.org.za) (accessed 16/12/2008).

Buffee G., *In Epopa (2006). South African Organic Market Study. Export Promotion of Organic Products From Africa*. Bennekom, the Netherlands, 2005.

Duke University, The Global Wine Industry, Duke University, Durham, USA. [www.duke.edu/web/soc142/team5/production.html](http://www.duke.edu/web/soc142/team5/production.html) (accessed 16/12/2008). 2008.

Epopa, *South African Organic Market Study. Export Promotion of Organic Products From Africa*. Bennekom, the Netherlands, 2006.

FAO, Fruit and vegetable processing flow-sheets. Food and Agricultural Organisation web site, [www.fao.org/docrep/v5030e/v5030e0y.htm](http://www.fao.org/docrep/v5030e/v5030e0y.htm) (accessed 16/12/2008). 2008a



FAO, Formulation and processing of selected frozen food prototypes, Food and Agricultural Organisation web site, [www.fao.org/docrep/008/y5979e/y5979e04.htm](http://www.fao.org/docrep/008/y5979e/y5979e04.htm) (accessed 16/12/2008). 2008b.

Fairhills, Organic Wine Trade Company web site, [www.organicwinetrade.comy.com/brands/wines/fairhills-merlot.html](http://www.organicwinetrade.comy.com/brands/wines/fairhills-merlot.html) (accessed 16/12/2008).

Faulkner, L., S. Bunting, S. Walker, A. Mill, M. Breckell, M. Dingle, H. Goodwin, C. Wiklund and B. Joe, *Generic HACCP models for food assurance programmes. Operational research contract FMA169*. Prepared for MAF Policy by Agriquality New Zealand Ltd, 2001.

Froy, M., *Personal communication*. 2008.

Go-organic, Go-organic web site, [www.go-organic.co.za](http://www.go-organic.co.za) (accessed 16/12/2008).

Hamm, U. and M. Rippin, *Presentation at the National Organic Food Conference from the Irish Food Board on 4th September 2008*. Dept. of Agricultural and Food Marketing, University of Kassel, 2008.

Hoekstra, S.J. and J.M. Romme, *Integral Logistic Structures: Developing Customer-oriented Goods Flow*. McGraw Hill, London, UK, 1992.

IFOAM, *Organic and like-minded movements in Africa, Development and status*. Nicholas Parrott and Bo van Elzakker, Agro Eco, 2003.

IFOAM, *The World of Organic Agriculture. Statistics and Emerging Trends*. International Federation of Organic Agriculture Movements (IFOAM), Bonn, Germany and Research Institute of Organic Agriculture (FiBL), Frick, Switzerland, 2008.

Kuiburi, Kuiburi Fruit Canning Co. Ltd. web site, [www.kuiburifruit.co.th/](http://www.kuiburifruit.co.th/) (accessed 16/12/2008).

MIO, The MIO Foundation web site, [miofairtrade.org/aboutus.htm](http://miofairtrade.org/aboutus.htm) (accessed 16/12/2008).

NZFSA, Fresh Plant Products Agrichemical Assurances, Description of the process or operation, New Zealand Food Safety Authority, New Zealand. [www.nzfsa.govt.nz/plant/subject/horticulture/fresh-plant-produce/page-02.htm](http://www.nzfsa.govt.nz/plant/subject/horticulture/fresh-plant-produce/page-02.htm) (accessed 16/12/2008).

OFP, Organic Freedom Project web site, [www.ofp.co.za/](http://www.ofp.co.za/) (accessed 16/12/2008).

Organic Monitor, *The Global Market for Organic Food & Drink: Business Opportunities & Future Outlook*. Organic Monitor, London, UK, 2006.

OSA, Organics South Africa web site, [www.organicsouthafrica.co.za](http://www.organicsouthafrica.co.za) (accessed 16/12/2008).

Pijl, S. van der, *Consumenten geven visie op duurzame voeding*. Schuttelaar & Partners, consumer research carried out for the Taskforce Marktontwikkeling Biologisch Landbouw, 2008.

PPECB, *Export Directory 2008*. Perishable Products Export Control Board, Cape Town, South Africa, 2008.

Salin, V. and R.M. Jayga Jr, 'A cold chain network for food exports to developing countries' In: *International Journal of Physical Distribution & Logistics Management*. Vol. 33, (2003), No 10.

SRCC. Sundays River Citrus Company web site, [www.srcc.co.za/index.asp](http://www.srcc.co.za/index.asp) (accessed 16/12/2008).

University of Texas, Map of South Africa. [www.lib.utexas.edu/maps/africa/safrica\\_provinces\\_95.jpg](http://www.lib.utexas.edu/maps/africa/safrica_provinces_95.jpg) (accessed 16/12/2008).

UOF, Frozen Concentrated Orange Juice from Florida Oranges, University of Florida, IFAS Extension, Florida, USA. 2008. <http://edis.ifas.ufl.edu>. (accessed 16/12/2008).

Vorst, J.G.A.J. van der, *Effective Food Supply Chains: Generating, modelling and evaluating supply chain scenarios*. Wageningen University. PHD, 2000.

Walaga, C., Africa. In: Yusseffi, M. and H. Willer (Eds) (2003). *Organic Agriculture and Biodiversity in Uganda*. Mimeograph, 2003.

Wertheim-Heck, S.C.O., S.D.C. Deneux, J.H. Bakker and A.A. van der Maas, *Bio-Logisch?! In the eye of the beholder*. LEI Wageningen UR, 2005.

Willer, H, M. Yussefi-Menzler and N. Sorensen (Eds.), *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, 2008.

Wijninfo, Wijninfo web site, [www.wijninfo.nl](http://www.wijninfo.nl) (accessed 16/12/2008), 2008.

ZMP, 'Okomarkt Forum', In: *marktbericht 47*, p.2-3, 2008.

# Appendix 1

## Dutch traders in organic products

<b>Dutch traders in organic products</b>		
<b>Organisation</b>	<b>Web site</b>	<b>Commodity</b>
Naturelle (The Greenery)	<a href="http://www.thegreenery.com/naturelle/">www.thegreenery.com/naturelle/</a>	Organic vegetables and fruit
EOSTA BV	<a href="http://www.eosta.com/">www.eosta.com/</a>	Organic vegetables and fruit
OTC Holland	<a href="http://www.otcholland.com/">www.otcholland.com/</a>	Organic fruit
Tradin	<a href="http://www.tradinorganic.com">www.tradinorganic.com</a>	Organic vegetables, fruit, juice and other commodities
Coenecoop	<a href="http://www.coenecoop.com">www.coenecoop.com</a>	Organic wine
Lovian	<a href="http://www.lovian.nl">www.lovian.nl</a>	Organic wine
Vinoblesse	<a href="http://www.vinoblesse.nl">www.vinoblesse.nl</a>	Organic wine
Pieksman	<a href="http://www.pieksman.nl">www.pieksman.nl</a>	Organic wine

## Appendix 2

### Interviewed stakeholders from the Republic of South Africa

<b>List of interviewed stakeholders</b>	
<b>Name</b>	<b>Organisation</b>
Mr Krige Visser	Avondale
Mr and Mrs Gilson	Spaarkloof farm
Mrs Liz Eglington Mr Trevor Stacey	Blue Sky Organics
Mr Silandela Mr Clive Sutton	Control Union World Group Mhloli Control - South Africa
Ms Precious Mugadza	Tradin
Mr Francois Visser	Alpine Organics
Ms Estelle Visser	PPECB
Mr Malan	Fruits Unlimited
Mr Erik Verhaak Ms Mariette Ras	Groot Parijs
Mr Ryno Bougas Ms Lorna Basson	Green Marketing
Mr Willie Odendaal	Modderfontein farm
Ms Lee Griffin	Stellar Organics
Mr Mike Walwyn	Seaboard
Mr Mike Froy	Grindrod Logistics
Mrs Sue Jackson	Wensleydale Farm
Mr Tim Jackson	Bio-Dynamic & Organic Certification Authority
Ms Diana Callear	Ecocert Afrisco
Mr Andre Jooste	NAMC

## Appendix 3

### Platforms for organic agriculture in the Republic of South Africa

<b>Contact details of platforms for (organic) agriculture in the Republic of South Africa</b>	
<b>Platform</b>	<b>Contact details</b>
The Organic Agriculture Association of South Africa (OAASA) aka Organics South Africa (OSA)	<a href="http://www.organicsouthafrica.co.za">www.organicsouthafrica.co.za</a>
The African Organic Farming Foundation (AOFF)	<a href="http://www.africanorganics.org">www.africanorganics.org</a>
The Biodynamic Agricultural Association of Southern Africa (BDAASA)	<a href="http://www.bdaasa.org.za">www.bdaasa.org.za</a>
Go-organic	<a href="http://www.go-organic.co.za">www.go-organic.co.za</a>
Organic Freedom Project (OFP)	<a href="http://www.ofp.co.za">www.ofp.co.za</a>
Wines of South Africa	<a href="http://www.wosa.co.za">www.wosa.co.za</a>
The Citrus Growers Association of Southern Africa	<a href="http://www.cga.co.za/site/default.asp">www.cga.co.za/site/default.asp</a>
The Fresh Produce Exporters' Forum (FPEF)	<a href="http://www.fpef.co.za/">www.fpef.co.za/</a>

# Appendix 4

## Organic certifiers in the Republic of South Africa

<b>Organic certifiers in the Republic of South Africa</b>	
<b>Certifier</b>	<b>Contact details</b>
The Bio-Dynamic and Organic Certification Authority (BDOCA)	Tim Jackson E-mail: info@bdoca.co.za Web site: www.bdoca.co.za Tel.: (012) 650-0284 Fax: +27 12 650 0207 Cell: +27 82 450 6106
Control Union World Group (CUC) Mhloli Control - South Africa	Clive Sutton Managing Director E-mail: csutton@controlunion.com Web site: www.controlunion.com Tel.: +27 31 262 5965 Fax: +27 31 262 2752 Cell: 082 490 3018
Ecocert-Afrisco	Diana Callear Managing Director E-mail: afrisco@global.net Web site: www.afrisco.net Tel.: +27 12 349 1070
Soil Association Certification Ltd.	South Plaza, Marlborough Street Bristol BS1 3NX, UK E-mail: goorganic@soilassociation.org Web site: www.soilassociation.org/ Tel.: +44 117 914 2406
SGS in South Africa	58 Melville Street, 2091 Booyens Johannesburg, South Africa Web site: http://www.za.sgs.com/ Tel.: +27 11 680 3466 Fax: + 27 11 433 3654

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