
Support for Farmers' Cooperatives

Case Study Report
**Fruit and
Vegetable
cooperatives in
The Netherlands
and Belgium**

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Preface and acknowledgements

In order to foster the competitiveness of the food supply chain, the European Commission is committed to promote and facilitate the restructuring and consolidation of the agricultural sector by encouraging the creation of voluntary agricultural producer organisations. To support the policy making process DG Agriculture and Rural Development has launched a large study, "Support for Farmers' Cooperatives (SFC)", in order to provide insights on successful cooperatives and producer organisations as well as on effective support measures for these organisations. These insights can be used by farmers themselves, in setting up and strengthening their collective organisation, by the European Commission, and by national and regional authorities in their effort to encourage and support the creation of agricultural producer organisations in the EU.

Within the framework of the SFC project this case study report investigates the development, over the last 20 years, of fruit and vegetables cooperatives in The Netherlands and Belgium. Although both countries started from a similar situation in the early 1990s, they have subsequently followed different paths and have chosen for different models of implementing the EU policies on the common market organisation for fruit and vegetables.

Data collection for this report has been done in the spring of 2012.

In addition to this report, the SFC project has delivered 32 other case study reports, 27 country reports, 8 sector reports, 6 EU synthesis reports, a report on cluster analysis, a report on the development of agricultural cooperatives in other OECD countries, and a final report.

The authors would like to thank the following persons for providing information that is used for this study report.

- Mrs. R. Demaré, chairperson of Verbond van Belgische Tuinbouwcoöperaties (VBT) and chairperson of REO Veiling, Belgium
- Mr. Ph. Appeltans, general secretary of the VBT, Belgium
- Mr. T. Reijnders, chairman of the board of directors of ZON Fruit & Vegetables, The Netherlands
- Mr. P. van Dijk, former chairman of the board of directors of FresQ, The Netherlands

As the interviews were open interviews, discussing in general the developments among Dutch and Belgian F&V cooperatives, no particular information in this report can be attributed to a particular respondent. The description and analysis in this report is therefore the full responsibility of the authors.

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List of abbreviations

APO	Association of Producer Organisations
CAP	Common Agricultural Policy
CMO	Common Market Organisation
PO	(recognized) Producer Organisation
OP	Operational Programme

1. Introduction

1.1 Objective and background

The imbalances in bargaining power between the contracting parties in the food supply chain have drawn much attention, also from policy makers. The European Commission is committed to facilitate the restructuring of the sector by encouraging the creation of voluntary agricultural producer organisations. DG Agriculture and Rural Development has launched a large study, "Support for Farmers' Cooperatives", that will provide the background knowledge that will help farmers organise themselves in cooperatives as a tool to consolidate their market orientation and so generate a solid market income. In addition to agricultural producer organisations and cooperatives, there is also an interest in associations of producer organisations, which are promoted in the fruit and vegetable sector and –if current policy proposals succeed – and in the milk sector.

The development of cooperatives and producer organisations in the F&V industry over the last 20 years has been quite different in the Netherlands compared to Belgium. Particularly the transformation processes that the Dutch cooperative auctions have gone through in the second half of the 1990s has led to a different configuration of the distribution structure. Another interesting difference relates to the implementation of the EC policy on the common market order (CMO) for fruit & vegetables. While it may be difficult to establish what is cause and what is effect, it is clear that a different configuration of the distribution structure is related to a different way of implementing the EU policy on support for producer organisations. This case study report seeks to clarify the differences between Belgium and The Netherlands in the developments in the F&V industry over the last 20 years, the current distribution structure, and the way in which the EU policy on the F&V sector is implemented.

1.2 Research questions

The main research topic presented in this case study report is the comparison between The Netherlands and Belgium on the developments in structure and strategy of F&V cooperatives and the impact of the EU policy on the CMO for F&V on those developments.

The following research questions have been used to guide the investigation:

- What are the difference in characteristics of the production of F&V?
- What are the differences in importance of cooperatives in the F&V industry?
- What has been the main developments in the structure and strategy of the F&V cooperatives over the last two decades?
- What are the differences in horizontal and vertical integrations and coordination?
- What are the differences in the implementation of the EU policy on the CMO for F&V?
- What are the difference in terms of internationalization of the cooperatives?
- What are the difference in the structure of distribution of F&V, particularly what has been the role of trading companies?
- What price determination mechanisms are used by cooperatives and other companies?
- What is the status and scope of collaboration among the F&V cooperatives?
- What are the differences in the sectoral and organisational culture?

1.3 Analytical framework

There are at least three main factors that determine the success of cooperatives in current food chains. These factors relate to (a) position in the food supply chain, (b) internal governance, and (c) the institutional environment. The position of the cooperative in the food supply chain refers

to the competitiveness of the cooperative vis-à-vis its customers, such as processors, wholesalers and retailers. The internal governance refers to its decision-making processes, the role of the different governing bodies, and the allocation of control rights to the management (and the agency problems that goes with delegation of decision rights). The institutional environment refers to the social, cultural, political and legal context in which the cooperative is operating, and which may have a supporting or constraining effect on the performance of the cooperative. Those three factors constitute the three building blocks of the analytical framework applied in this study (Figure 1).

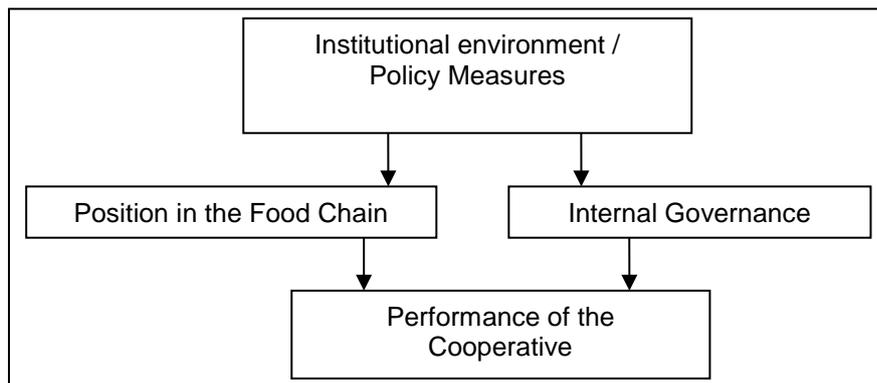


Figure 1. The core concepts of the study and their interrelatedness

1.4 Method of data collection

The case study is based on multiple data sources. First of all, secondary data was used such as academic literature, country reports of the Support for Farmers' Cooperatives project, trade journals, popular press and electronic media, various archives and other sources of information.

Additional information has been collected through personal interviews with various cooperative stakeholders. In Belgium, interviews were held with the chairwoman and the secretary general of the Union of Belgian Horticultural Cooperatives (Verbond van Belgische Tuinbouwcoöperaties, VBT). In the Netherlands, multiple interviews have taken place in the framework of different case studies of the SFC project, for instance with the chairman of ZON Fruit & Vegetables and the former chairman of FresQ, two of the largest F&V cooperatives in The Netherlands.

1.5 Structure of the report

Chapter 2 provides an overview of the F&V sector and the F&V cooperatives in The Netherlands, while Chapter 3 presents a description of the F&V sector and cooperative in Belgium. Chapter 4 makes the comparison between the two countries, while Chapter 5 draws some overall conclusions.

2. Fruit and Vegetable Cooperatives in The Netherlands

2.1 Production of F&V

This section presents a brief description of the Dutch F&V sector. In addition to a description of production, also the distribution system will be presented.

The Fruit and Vegetables (F&V) sector is an important part of Dutch agriculture. F&V represent 2.8 billion euro production value at farm gate prices. This figure excludes the value of potato production, which is another 1.2 billion euro (Bijman et al., 2011). In Figure 2, production of 2005 – 2010 is represented. Although fruit production has remained relatively stable, vegetable production has increased slightly to over 4 million tonnes in 2010 (Van den Berg et al., 2011) Among producers of vegetables, a distinction should be made between greenhouse growers and open air growers. The main greenhouse vegetables are tomato, sweet peppers (capsicum), cucumbers. Although the greenhouse growers account for 36% of all fruit and vegetables production in kilos, their share in the total production value is much higher (56%) (Van den Berg et al., 2011). Producers of open ground vegetables often grow different vegetables, for instance combination of leek with cauliflower and carrots. This group also includes arable farmers that produce vegetables for the processing industry, such as beans, peas, beets or spinach (Bijman et al., 2011).

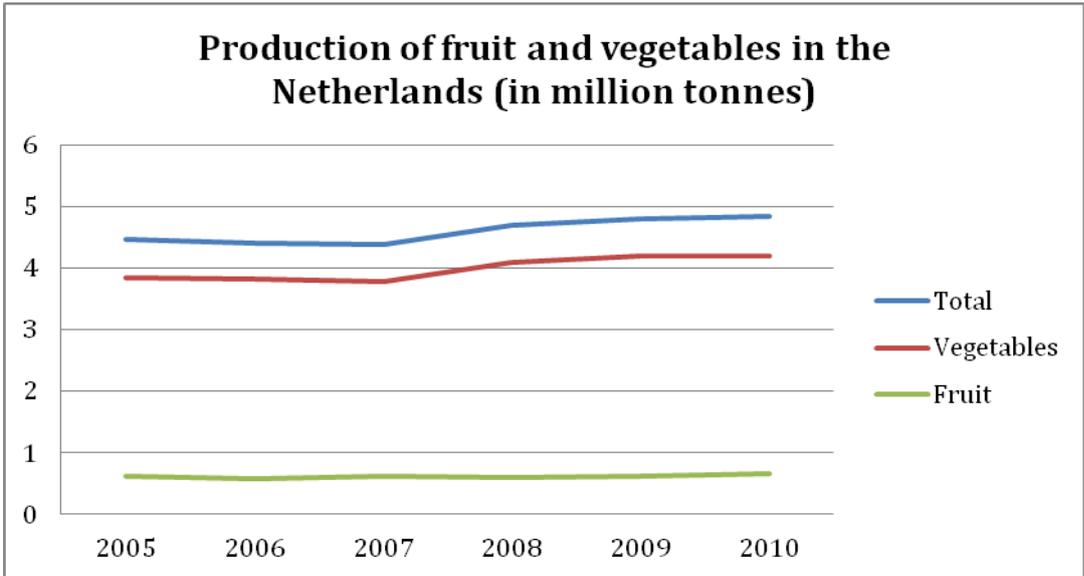


Figure 2. Production fruit and vegetables in the Netherlands (in tonnes)

One of the most striking developments is the increasing scale growth of the F&V industry. First, the number of greenhouse growers has decreased with 52% to 1,210 in the period 2000 – 2011, while their average size increased with 19% to 4 ha. in the same period. Secondly, the open ground growers went through a similar development, with a decline in the number of (specialised) farms of 40% to 1,030 in 2011. Their average size increased with 21% in the period 2000 – 2011 to 14 ha. Finally, the number of (specialised) fruit growers declined as well, with 28% to 1,680 growers in the period 2000 – 2011, in conjunction with an increase in the average size to 10 ha. in 2011 (De Bont et al., 2011).

One of the crops in which scale growth is most explicit is tomato. While in 2000 more than 80% of all production took place on farms with a maximum of 5 hectares, in 2008 farms with less

than 5 hectares accounted for only 35% of production. Even 40% was on farms larger than 15 hectares. Farmers more and more produce year-round, with the help of growth light in the winter season. Year-round production is important for those farmers that have a close relationship with a particular retailer and want to supply tomatoes year-round to this retailer (Bijman et al., 2011).

European producers of F&V are experiencing increased competition from countries outside of the Union. Temperate climate fruits are imported from the Southern hemisphere countries like Chile, South Africa and New Zealand, particularly in the European winter season, but even beyond this season. In fresh vegetables like beans and peas the European producer has found significant competition from African producers, both from West-Africa (e.g. Senegal), East-Africa (Kenya and Ethiopia), North Africa (Morocco, Egypt) and Turkey (Bijman, 2011).

2.2 Trade in F&V

Import and export

The Netherlands is an important trade country for the international F&V industry. In the period 2006 – 2010, imports of fruit and vegetables increased with respectively 3% and 5%. The Netherlands also increased its exports, with a growth of 6% for fruit and 5% for vegetables (Van den Berg et al., 2011).

Including re-exports, 84% of all greenhouse product supply is exported to mainly EU countries (Bunte, 2009), as is also depicted in Table 1. Mainly onions (34%), tomatoes (28%), cucumbers (12%), and capsicums (12%) are exported (only Dutch produce). Concerning Dutch produced fruit, primarily apples (30%) and pears (63%) are sold to foreign markets. Although the Netherlands imports most of its vegetables also from EU countries, a substantial amount of fruit is imported from South Africa and Chile. Citrus fruit is dominating among the imported products, especially oranges (16%), grapes (11%) and mandarins (7%). Also apples (10%) and bananas (8%) are imported, of which apples are mainly destined for re-exports (Frugi Venta, 2010).

Table 1. Major export markets and import countries for the Dutch F&V sector

Export				Import			
Vegetables	%	Fruit	%	Vegetables	%	Fruit	%
Germany	32	UK	18	Spain	35	South Africa	16
UK	14	Germany	17	Belgium	15	Spain	13
Russia	7	Russia	16	Germany	8	Belgium	8
France	5	Sweden	8	France	7	Chile	7

Source: Frugi Venta, 2010

Most of the imported fruit and vegetables are exported again. Of the total export from the Netherlands, especially fruit is re-exported (see also Figure 3). From the exported vegetables, approximately 75% is Dutch produce (Van den Berg et al., 2011).

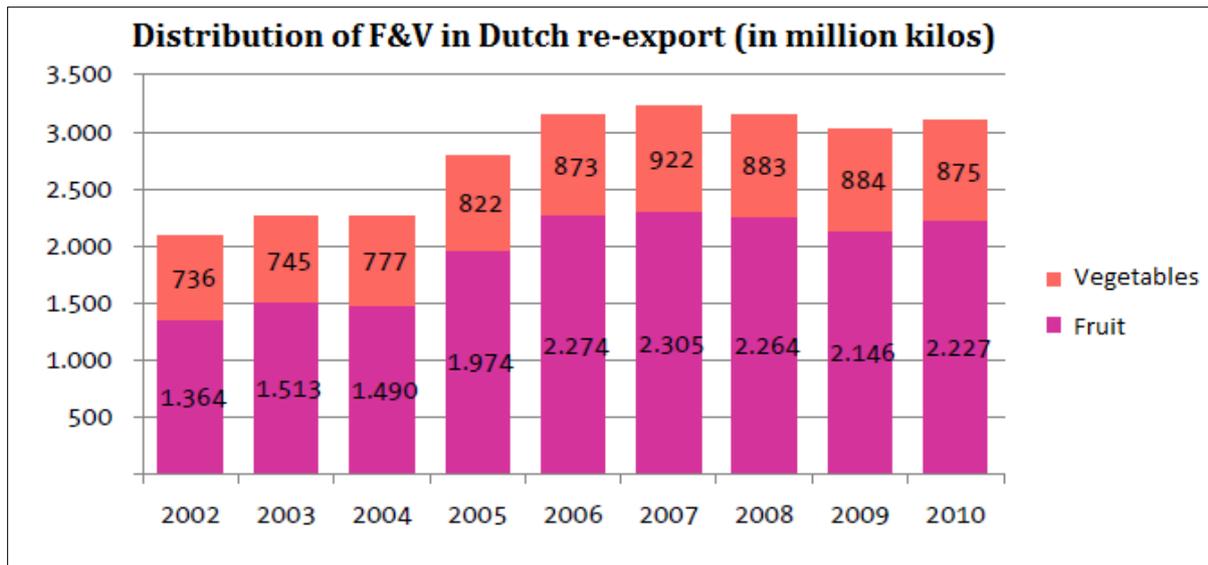


Figure 3. F&V re-export from The Netherlands. Source: Van den Berg et al., 2011.

The importance of re-export in the total export from the Netherlands is also shown in Figure 4. It becomes clear that of the total exported volume fruit and vegetables, approximately 50% is re-export and this share has somewhat increased in the period 2002 - 2010.

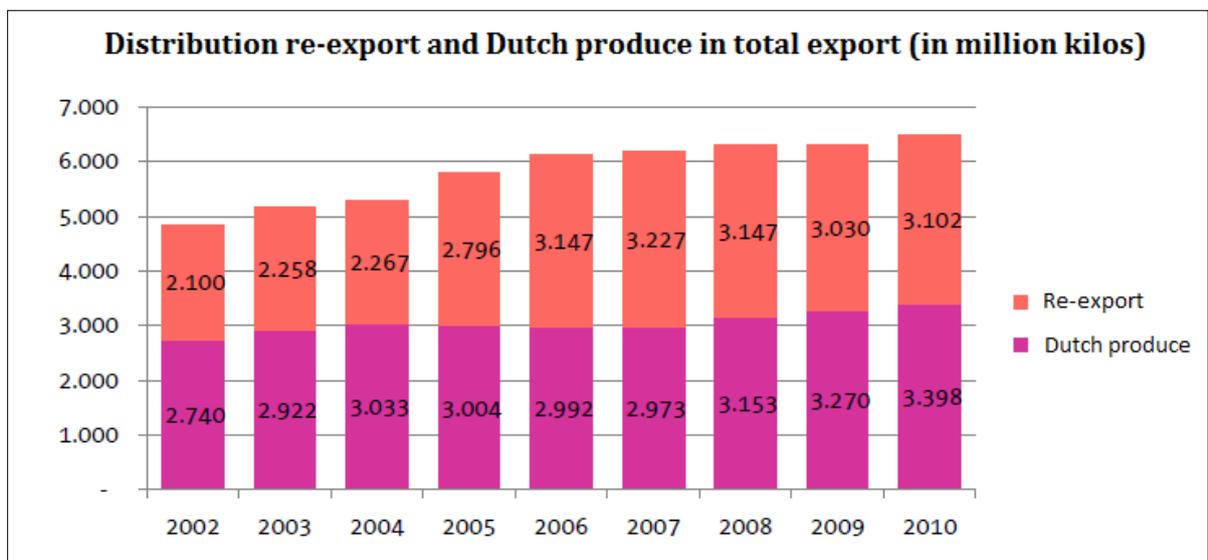


Figure 4. Distribution of re-export and Dutch produce in total export from the Netherlands (in million kilos). Source: Van den Berg et al. (2011).

Wholesalers and other intermediary traders

In the Netherlands, intermediary traders exist in the form of wholesalers, exporters, importers and producer organisations. The latter will be discussed separately. Traders might also combine domestic trade, import and export activities. The main functions of intermediary traders are as follows:

- Matching supply and demand, which saves time and transaction (search, information and contracting) costs for both parties.

- Providing logistic services, such as sorting, packing, transporting and inventory management.
- Assuring quality and food safety.
- Transfer of market and production information to suppliers and buyers respectively.

The number of intermediary traders has remained relatively stable during the last 10 - 15 years, around 1,100 – 1,200 firms (Van den Berg et al., 2011; Van der Noll et al., 2010). This number includes firms at which the trading activities are not the core activities. The number of specialized F&V traders is therefore lower.

There are many different supply chain structures. The traders (including wholesalers, importers and exporters) not only source their products from the growers directly, but also from POs or other traders. This internal market between traders arises from oversupply, shortages or specialisations (Van der Noll et al., 2010). For example, traders that cannot sell certain products to their regular customers due to unexpected lower demand, will try to sell these products to other traders. Also, some traders are specialised in certain product groups, whereas others offer a diverse set of products. When the latter traders cannot source their full assortment from their regular growers, they may choose to buy from specialised traders. This internal market could also cross national borders, in case exporters or POs sell their products to importers or wholesalers in another country. These different product flows between all kinds of organisations within the chain, makes the market among traders rather in-transparent.

There is strong competition in this part of the chain (Van den Berg et al., 2011). Over 20% of all traders are relatively small firms, with a turnover less than EUR 0.5 million a year. Of the larger firms, approximately half are wholesalers that focus on the domestic market, a third are exporters and the other firms are importers (HBAG, 2009). When European figures of 1996 – 2003 are compared, the number of wholesalers has also remained stable in most EU countries. Only the number of wholesalers in Italy decreased, and the UK and Poland had a significant increase (Tacken et al., 2007).

Although the number of wholesalers remained stable, this part of the supply chain on European level is characterized by increasing consolidation and internationalisation. For instance, Total Produce (Ireland) acquired Haluco (NL) for 60% in 2008 and created a Joint Venture with Frankort & Koning (NL) in 2011 in order to improve their access to the European market (Verheul, 2011). In the Netherlands, Staa Food Group strengthened its trade activities with the acquirement of Hispa Fruit and its production facilities with the acquirement of Savasun Fresh, a citrus plantation in Argentina. Also the Belgian trading company UNIVEG has major activities in the Netherlands, for instance through its subsidiary Bakker Barendrecht, the preferred supplier of the largest retailer in the Netherlands, Albert Heijn.

The size (in turnover) of the Dutch wholesalers is relatively large compared to other European countries. However, compared to the size of the largest retailers in Europe, the wholesalers are still small, which may hamper their competitiveness.

2.3 The role of cooperatives

In the Dutch fruit and vegetables industry, the majority of products is sold through cooperative marketing organisations. All of the major fruit and vegetable cooperatives are registered producer organisations under the EU/CMO regulation (and all of the approved POs are cooperatives). In 2000, there were 14 formally registered POs, accounting for about 70% of all fruits and vegetables sold in the Netherlands (Bijman, 2002). In 2009 there were 21 officially registered POs in the Dutch fruit and vegetables industry, while this number reduced to 19 in 2010 (due to mergers). The total value of products marketed by these POs was 2,345 billion

euro. This represent approximately 95% of the production value of all fruit and vegetables produced in the Netherlands (Bijman, 2011).

In order to understand the current role of cooperatives and to make the comparison with cooperatives in Belgium, we need to go back to the 1990s, and describe the fundamental changes that have taken place among F&V cooperatives.

The situation at the early 1990s

For many decades, the Dutch market for fruit and vegetables had been characterized by many small suppliers, being price takers, many buyers, standardised products and uniform packaging, large transparency, and a growing demand (Veerman, 1998). Almost all fruits and vegetables produced in The Netherlands were sold through cooperative auctions, which used the auction clock as the price determination mechanism. In 1990, 92 percent of all greenhouse vegetables, 78 percent of all fruit, 50 percent of all open field vegetables, and 42 percent of all mushrooms were sold through the auction (Bijman et al., 1994). In 1990, 28 F&V auctions together sold 2.1 billion euro of produce (VTN, 1996).

In the early 1990s it became increasingly clear to all involved in the F&V industry that conditions for production and sales were changing. While auction turnover has been growing during the 1980s, it fell from 2.1 billion euro in 1990 to 1.6 billion euro in 1995. A large share of this decrease in turnover was due to lower prices, caused by increasing competition from foreign suppliers.

In the early 1990s, several problems in the sales of Dutch fruit and vegetables had become more prominent. First, prices were low, which led to complaints from all growers. Second, large (retail) customers were dissatisfied with the auction, as they could not enter into long-term contracts, which they needed for promotions. Third, while Dutch products were well known for its standard quality, there was insufficient orientation to changing consumer demands. Fourth, innovative growers, who saw market opportunities with new vegetables varieties, did not get support from the auction cooperatives. Fifth, bringing all products to the auction location and then distribution to customers was increasing considered as inefficient logistics. Changes were in the air.

In 1996, nine F&V cooperatives merged into one new cooperative: Voedingstuinbouw Nederland (VTN). The original plan was to merge all 20 F&V cooperatives. However, the cultural differences between the west of the Netherlands and the southeast turned out to be too large to be bridged. VTN brought all commercial activities in one central marketing and sales organisation, The Greenery International BV. In 1997, The Centraal Bureau Tuinbouwveilingen (CBT), a federative cooperative providing services to all F&V cooperatives auctions in The Netherlands, was merged with VTN, and all its activities were integrated into The Greenery International. In 1998 VTN/The Greenery bought two groups of fresh produce wholesale companies. The acquired companies, Van Dijk Delft Group and the Fresh Produce Division of Perkins Food plc, were both importers and exporters, having major retailers in Germany and the UK as their customers. With this acquisition, VTN/The Greenery became a vertically integrated company combining two formerly separate stages of the supply chain: selling members' products and wholesaling a broad range of fruit and vegetables products, thus having direct access to major retailers.

One of the main goals of establishing The Greenery was to improve bargaining power by selling most of Dutch F&V through one organisation. Already at the time of the establishment of this new cooperative it became clear that not all growers in the Netherlands wanted to join. A large part of the vegetable growers in the southeast of The Netherlands wanted to maintain their own cooperative, ZON Fruit & Vegetables, while most of the fruit growers did not want to be

dominated by the vegetables growers, and maintained their own cooperatives, the largest one being Fruitmasters.

At the moment of its establishment, the market share of The Greenery in the Dutch-produced vegetables market was almost 80% (Table 2). However, the cooperative as not able to maintain this market share. The major changes in the strategy and structure of The Greenery (see above) lead to the exit of many growers who decided to establish their own producer organisations and start trading themselves with wholesale companies. The latter companies, who suddenly found themselves in competition with The Greenery, actively supported growers to set up their own producer organisations.

Table 2. Market shares of greenhouse vegetables cooperatives (1996 - 2008)

	Greenery		ZON		Others	
	1996	2008	1996	2008	1996	2008
Tomatoes	76	40	14	11	10	49
Cucumbers	74	19	22	5	4	76
Peppers	87	35	11	17	2	48
Aubergines	85	33	6	n.a.	9	67
Average	79	32	15	10	6	58

Source: Bunte, 2009

End of the auction clock?

One of the major developments in the Dutch F&V sector, has been the declining importance of the auction clock as a price determination tool. In the 1990's, the market was characterized by many suppliers and many buyers, or in other words almost perfect competition. The auction clock was therefore a very efficient and transparent pricing mechanism. However, the retail began to concentrate, wanted to move from a spot market to contract-based sourcing, and required more differentiated products. As a response, the cooperatives reduced the role of the auction clock in their activities. Figure 5 shows that the auction clock has almost been abolished.

The auction clock was both an expression of and an instrument for perfect competition. The auction was introduced in a period of many suppliers and many buyers. In creating transparency and standard pricing rules, the auction clock guaranteed a competitive equilibrium price to the large number of buyers and suppliers. Thus, the auction clock contributed to perfect competition in the sales of fresh fruits and vegetables.

However, large retailers do not like to purchase their supplies at auctions, for several reasons. First, retailers use centralized purchasing and do not want to go to multiple auctions to buy all they need to buy. Second, auctions do not facilitate long-term agreements between growers and buyers. Therefore, retailers prefer to deal directly with growers and/or wholesalers, agreeing on fixed quantities and fixed prices (or at least prices within a certain range). Third, for auctions it is difficult to introduce customized packaging for the retailers. In order to service its major retail customers, the cooperatives reduced the role of the auction clock in price determination. Instead, bilateral contracting was introduced, both for short and medium term contracts.

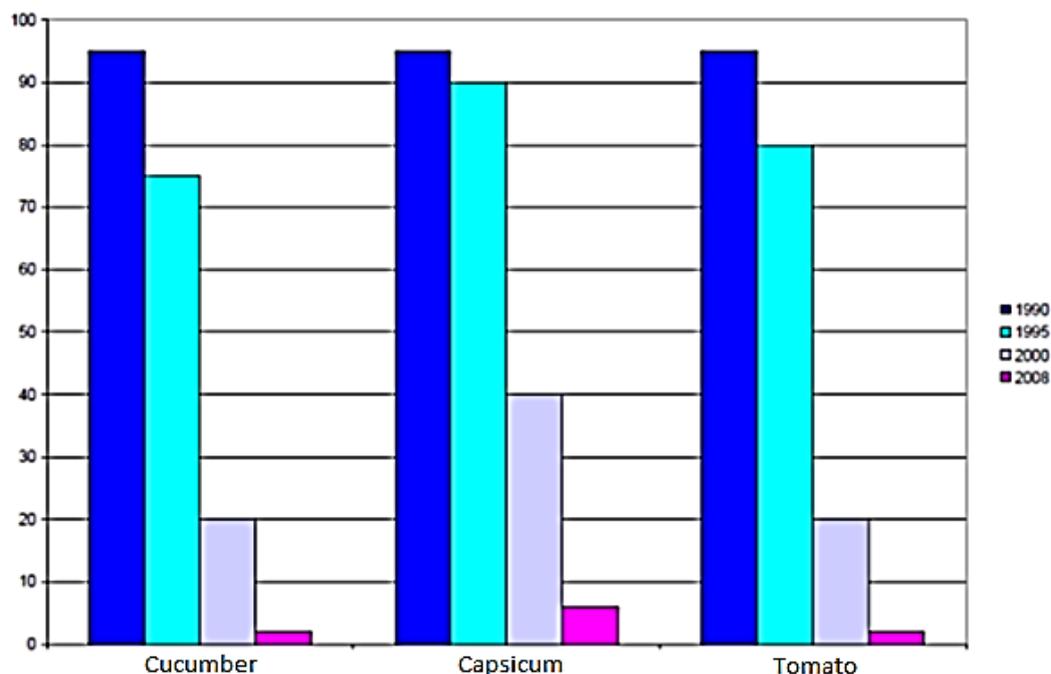


Figure 5. Market shares of auction clock in F&V industry in the Netherlands
(Source: Bunte, 2009).

According to Bunte (2009), the spot market of the auction has not been substituted by long-term contracts, which growers had expected. While the auction clock is no longer used, the daily price determination has remained, but now through negotiations. Most contracts about delivery of fresh produce to wholesalers and retailers are short term contract (day, week or several weeks contracts). However, the conditions in this spot market are changed dramatically. Transparency is greatly reduced. No information disclosure on current prices exists. In addition, negotiation provides room for re-negotiation. In comparing auctions with bilateral negotiations, Milgrom (1989) explained the advantage of an auction: "As compared to bargaining, auctions have the additional advantage of being institutions whose conduct can be delegated to an unsupervised agent. Public auctions offer fewer opportunities for kickbacks and behind-the-scenes agreements between the seller's agent and a single buyer than do negotiated agreements." (Milgrom, 1989: 19)

This change of price determination mechanisms has greatly influenced the relationship between the grower and the cooperative. As long as the auction used the auction clock, prices were public and the price setting procedure was transparent to all. In the case of bilateral negotiations, the grower has to rely on the ability of the cooperative's sales agent for obtaining a good price for its products. The lack of transparency about prices and the dependency on the sales agent require a high level of trust, which is not always present, particularly when prices are low. The fact that the marketing cooperative sells a wide range of products puts even more strain on the member-cooperative trust relationship, as the grower never knows whether his product is cross-subsidizing other products in the portfolio of products the cooperative offers to its retail customers.

New producer organisations

During the 1990s many new producer organisations in the Dutch F&V industry have been established. Some of these POs came to life already before 1996, the year of the establishment of The Greenery, but most were set up during the years 1996 - 2000. Growers left The Greenery

and established new POs for several reasons. Some growers were dissatisfied with the new strategy. They wanted to participate in developing the marketing strategy for their specific products but were told to focus on production and leave marketing to the Greenery. Others were invited by other wholesalers to become preferred suppliers. Also growers that remained members of The Greenery set up new producer associations, often for a specific crop or crop variety. Most of these 'internal' associations focussed on technical coordination between production (by the growers) and marketing (by The Greenery), but some also acted as a bargaining association to obtain preferential treatment for its specific products.

Between 1990 and 2000 a total of 74 new growers' associations for fruits and vegetables have been established in The Netherlands (Bijman and Hendrikse, 2003). Out of these 74, 36 took the legal form of cooperative. By mid-2001, 29 out the 36 were still in operation (Appendix 2 lists these cooperatives). While the distinction between association and cooperative is a legal issue, it mirrors the activities and ambitions of the organisations. An association is mainly for representing, lobbying and bargaining on behalf of its members. A co-operative is a type of firm. As such, it can attract equity and debt capital, invest, own assets, hire personnel, etc. Both type of producer organisations are member-controlled organisations with a democratic decision-making structure.

Several of these new PO have become marketing cooperatives themselves. As of June 2012, the Netherlands had 17 F&V cooperatives as recognized POs under the EU policy on the CMO for F&V. Several of the POs listed in Appendix 2 have merged into one new cooperative. For instance, FresQ is the result the 2003 mergers between Rainbow and Quality Queen, Best of Four is the result of the 2010 merger among Brassica Group, Tradition, Unistar, and Westveg; Van Nature is the result of the 2012 merger between Best Growers Benelux and Versdirect.

Table 3. Recognized Producer Organisations in The Netherlands (June 2012)

Short name / popular name	Full name
De Schakel	Coöperatieve Telersvereniging De Schakel U.A.
Fruitmasters	Coöperatie Koninklijke Fruitmasters Groep U.A.
Fossa Eugenia	Telerscoöperatie Fossa Eugenia U.A.
Fresh Produce Growers	Coöperatie Fresh Produce Growers U.A.
FresQ	Telerscoöperatie FresQ U.A.
Funghi	Coöperatie Funghi U.A.
Coforta / The Greenery	Coöperatie Coforta U.A.
Komosa	Coöperatie Komosa U.A.
Nautilus	Coöperatie Nautilus U.A.
SunQuality	Coöperatieve Telersvereniging SunQuality U.A.
Van Nature	Telerscoöperatie Van Nature U.A.
Veiling Zaltbommel	Coöperatieve Tuinbouwveiling "Zaltbommel en Omstreken" B.A.
ZON Fruit & Vegetables	Coöperatieve Telersvereniging Zuidoost-Nederland U.A.
Veiling Zuid-Limburg	Coöperatieve Fruitveiling Zuid-Limburg B.A.
Veiling Zundert	Coöperatieve Land- en Tuinbouwvereniging Zundert en Omstreken U.A.
Best of Four	Coöperatieve Telersvereniging Best of Four U.A.
Kompany	Coöperatie Kompany U.A.

source: <http://www.tuinbouw.nl/artikel/erkende-telersverenigingen>, accessed 28 June 2012

Over the last decade, many discussions have taken place between different producer organisations about closer collaboration in sales, as well as about establishing an Association of Producer Organisations (APO). Discussions about collaboration, in a new joint organisation or even in a merger, have taken place between Fruitmasters and Coforta/The Greenery, between Fruitmasters and ZON, between Coforta/The Greenery and Funghi, Coforta/The Greenery and FresQ, Coforta/The Greenery and BGB. Besides the above mentioned mergers of POs, no results

have been achieved on closer collaboration, partly due to barriers set up by competition authorities. So far, only one APO has been established: Kompany was set up in 2009 by ZON Fruit & Vegetables, Komosa and Sun Quality, for the collective marketing of cucumber.

2.4 Policy measures

For producers and cooperatives in The Netherlands, the EU policy on the CMO for F&V is an important policy area. Producer Organisations in the Netherlands receive substantial amounts of EU financial support for the operational programme. The total amount ranges between 80 and 100 million euros (Verheul, 2012).

According to the National Strategy of the Netherlands, POs need to work on the following priorities (Ministry of Economics, Agriculture and Innovation, 2011):

- product innovation;
- mechanisation;
- environment;
- scale growth and collaboration;
- planning of supply and demand;
- prevention of crisis;
- PR and promotion.

Particularly scale growth and collaboration is considered important as several of the current POs are considered rather small and therefore not having strong bargaining power. In line with the recent mergers as mentioned above, we may expect further concentration among the F&V cooperatives.

There has been some debate in The Netherlands about the proper use of the EU financial support. A large part of the financial support has been used for investments in buildings, sorting and packing installations, cooling cells, and other logistical facilities to improve the efficiency and reduce the cost of packaging and logistics. Although these investments can be considered as beneficial for the sector – they have led to strong assets and expertise in customized packaging – it has not necessarily led to better prices and an improvement of the competitiveness of the F&V industry. The Dutch organisation of F&V traders even doubts whether the subsidies have been used for the purposes they were meant for, namely to improve the competitiveness of the growers in relation to the international retailers by stronger collaboration in the chain and more promotion of F&V (Frugi Venta, 2010).

Currently, less than 10% of financial support is spent on marketing, promotion, chain collaboration and innovation (Ministry of Economics, Agriculture and Innovation, 2011). Several organizations, including Frugi Venta (representing traders), DPA (representing cooperatives) and LTO (representing growers), have requested the Ministry of Economics, Agriculture and Innovation to adapt the National Strategy to let producers spend at least 10% of the Operational Programme (including their own investments) on promotion, innovation and collaboration. Although the National Strategy has not been changed, the mentioned organisations reached an agreement on this issue (Frugi Venta, 2010). More performance indicators for each goal of the National Strategy are likely to be developed by the Dutch government in order to evaluate whether these goals are actually achieved (Ministry of Economics, Agriculture and Innovation, 2011).

3. Fruit and Vegetables Cooperatives in Belgium

3.1 Production of F&V

F&V is an important part of agricultural production in Belgium, particularly in Flanders. It represents about 17 percent of total agricultural value; this percentage is in line with the EU average. The total production value of the F&V sector (at farm gate prices) is about 1.1 billion euro. Belgium has about 5000 farms producing F&V.

F&V is particularly important in Flanders, representing 33% of the Flemish agricultural economy. At the national level, 81% of the entire production value has its roots in Flanders, while F&V production only covers 7% of the arable surface. Almost 60% of all farms in the F&V sector have specialised in the production of vegetables, while almost 30% have specialised in fruit production.

3.2 Trade in F&V

Belgium also has a significant trading sector for F&V. Not only to distribute the products of Belgian growers, but also because Antwerp is a major importing harbour for (tropical) fruits that are then shipped to Germany and other EU Member States.

During the last 10 years, also Belgian UNIVÉG Group has gone through a significant internationalisation. The Belgian firm acquired and merged with several traders from different European countries, such as Bakker Barendrecht (NL), Alara (TR), Bocchi Group (IT), Katopé Group (FR) and Atlanta AG (DE). However, in 2011 UNIVÉG announced a reorganization, including disinvestments in its flower and plant activities and a separation of its overseas production facilities into a new entity for which additional investors are approached.

3.3 Cooperatives

The first auction cooperatives were established in Brussels and Antwerp in the early 20th century. In 1923 the first auction clock was introduced, following the Dutch example, at a F&V in Hasselt. Most F&V auctions were set up after WWII. Through a process of mergers, at the end of the 20th century, only nine F&V auctions remained in Belgium.

All auctions have the legal form of a cooperative. Members supply the products, members own the organisation and members democratically control the organisation. The board of directors consists of farmer-members and is responsible for the strategy and policies of the auction cooperatives. Day-to-day operations are delegated to professional managers.

Almost 85% of all fresh fruit and vegetables produced in Belgium are sold through cooperatives. For price determination, the cooperatives use the auction clock. As a result, the market is very transparent; farmers know each day what prices have been made at the auction.

The main products sold at the auction cooperatives are tomatoes (220 million kg, 182 million euro turnover) and strawberries (123 million euro turnover). The total turnover of the F&V cooperatives in Belgium, in 2010, was 875 million euro (VBT 2012). 70% of all F&V are exported.

In 2011, Belgium had 16 by the EU recognized producer organisations, with a total of 16,830 members (VBT jaarverslag 2011). Within the EU, Belgium has the second largest number of POs (after The Netherlands), with an average value of marketed products of 60 million euro in 2003 (Belgium National Strategy, 2008).

Table X. Recognized Producer Organisations in Belgium

PO	Association of POs	Main products
Brava	LAVA	F&V
LTV	LAVA	Mainly fruit
Mechelse veilingen	LAVA	Mainly vegetables
REO veiling	LAVA	Mainly vegetables
In-Co	LAVA	Fruit
Veiling Hoogstraten	In-Co	F&V
Veiling Borgloon	Fruitbiz	Fruit
Belgische Fruitveilingen (BFV)	Fruitbiz	Fruit
Veiling Haspengouw	EFC	Fruit
Greenbow (Greendiamond, Green Farm, New Green)		
Greenpartners		F&V
VOC		Mushrooms
Ingro		Vegetables for processing industry
B.N.D. Internationale Telersvereniging		Vegetables for processing industry
Rijke Oogst		Vegetables for processing industry
Vegras		Vegetables for processing industry

Table X. Largest F&V cooperatives in Belgium, 2010

		Turnover (million euro)
1	Mechelse Veilingen	234
2	REO Veiling	178
3	Belgische Fruitveiling	105
4	Veiling Hoogstraten	153
5	Coöbra (Brava + Greenpartners)	72
6	Veiling Haspengouw	65
7	Veiling Borgloon	61

Source: VBT Jaarverslag 2011 and websites.

Cooperatives increasingly collaborate by simultaneous auctioning, providing buyers to buy at different auctions at the same time.

The auction cooperatives collaborate by offering buyers the opportunity to simultaneously buy at different auctions, in order to be able to follow the demand of large purchasers, even across national borders. Next to the clock, also contracts with fixed prices are negotiated for certain products, or with specific agreements with respect to quality or type of packaging. The association of six fruit and vegetable auctions, LAVA, has introduced the Flandria quality label, used in the promotion of high quality, fresh fruits & vegetables that are grown in an environmentally conscious way.

The *Verbond van Belgische Tuinbouwcoöperaties* (the Association of Belgian Horticultural Cooperatives, VBT)¹, is the industry organisation for Belgian F&V auctions and other producer organisations. Together the VBT represents 80% of all production value of F&V. In 2011, VBT had 11 members.

In a report by the Department of Agriculture and Fishery of the Flemish government (2008, update 2011) an analysis has been made of the evolution of traditional auctions to auctions new style. Whereas traditional auctions restricted their activities to sale via clock, administrative sale, product control and logistics, auctions new style also perform these functions, but in addition they also act as intermediary for sales, offer quality control for processes, plan production, market products, innovate products and processes, engage in wholesale and export or import, process (convenience products) and offer advice to their member growers.

Price determination

The F&V cooperatives in Belgium use different price determination mechanisms: auction clock, one day contract brokering, and future contract brokering. Auction clock sales and one day contract brokering take place at the individual auction cooperatives. Future contract sales are delegated to LAVA, which stands for the "Administrative and Logistic Association of Auctions", the umbrella organisation to promote cooperation among the six most important fruit and vegetable auctions in Belgium. LAVA is a joint venture, with the legal form of a cooperative, and it is a recognized Association of Producer Organisations. An important agreement among all participating cooperatives is that only LAVA is allowed to sell by future contract. Thus, all buyers that want to buy through contract negotiation have to buy from LAVA. This procedure prevents competition among the cooperatives. In 2008, LAVA sold about 15% of the total turnover of the participating auctions (VILT, 2008). Fruit cooperatives do not collaborate in LAVA.

The cooperatives participating in LAVA have agreed that no more than 30% of total auction turnover will be sold through future contracting (VILT, 2008). For about half of all products sold through future contracting the price is also expressed at the auction clock. Which implies that there is a relationship between contract price and auction price. It also guarantees that the auction clock price remains the dominant market price.

All auction clocks of all cooperatives are accessible through Internet, and buyers can buy at different auctions simultaneously. This reduces competition among cooperatives.

Quality label

An important asset of LAVA, and thus of the member cooperatives, is the label Flandria. Buyers of products with the Flandria certificate know that, from whatever cooperative they buy, the quality is the same. Thus Flandria is primarily a label for quality. Consumers value products with this brand, as 85% of domestic vegetables is sold under Flandria brand. LAVA is the organisation that is responsible for setting the quality requirements and monitoring compliance.

3.4 Policy measures

The European CMO on F&V has been a stimulus for producers to organize themselves in new POs and for traditional auctions to innovate. The CMO's goal is to create a level playing field for producing and marketing fruit and vegetables in Europe and to help producers to organize themselves in order to increase their economic performance and position in the food chain. The

¹ Until 2011, VBT was called *Verbond van Belgische Tuinbouwveilingen* (horticultural auctions).

idea was to change public intervention, coupling it to efforts in economic organisation and quality improvement. Producers, in case they want to benefit from European subsidies, are required to set up producer organisations that bundle the offer, market it and encourage environmentally-friendly practices. An “operational program” has to be formulated, then recognized and subsidized by the EU. With the reform of the CMO in 2007 some new measures were introduced: the definition of a national strategy, the creation of new tools for the prevention and management of crises, the abolition of withdrawals, the reinforcement of environmental actions and the attractiveness of producer organisations.

With the implementation of the CMO for F&V the Belgian cooperatives and National authorities had decided that the funds should be spent by the cooperative and not the (individual) members. This means that the financial support is used for investments by the cooperative and not for investments by individual growers or groups of growers.

4. Comparative Analysis

This chapter we will present a comparison on the structure, strategies and development in the Belgian and Dutch F&V industry and the cooperatives.

Production structure

While the number of F&V farms in Belgium and The Netherlands are more or less equal, some 5000, the average farm in Belgium is much smaller. Huge greenhouse farms of 50 or more hectare do not exist in Belgium. The production value of the F&V industry is much larger in The Netherlands than in Belgium: 2.8 versus 1.1 billion euro.

Product quality

Both Belgium and The Netherlands produce high quality F&V. The difference is that a large part of Belgian products are sold under the quality label Flandria. This label has been reason for Dutch producers to start selling their products in Belgium

Evolution and role of cooperatives

Cooperatives play a major role in the marketing of F&V in both countries. This has always been the case, and has even been reinforced by the EU policy on producer organisations in the F&V industry.

With the establishment of The Greenery in 1996 and its subsequent vertical integration into wholesaling in 1998, a revolutionary change took place in Dutch horticulture. This 'big bang' implied many changes at the same time: changes in strategy, price determination, management of the cooperative, transparency of the market, commitment of the members, collective interest representation, logistics, finances, etc. On a short term those changes led to much uncertainty, from which new structures and new procedures have appeared. The birth of many new producer organisations can clearly be explained by the major changes halfway the 1990s.

In Belgium the development of the F&V cooperatives has been more smooth and more incrementally. The rapid advances in ICT have allowed Belgian cooperatives to maintain auction clocks but also made collaboration among cooperative auctions possible, thereby preventing too much competition (e.g., in the joint organisation LAVA, and by allowing simultaneous buying at different auctions). The increasing competition among auction cooperatives in The Netherlands was one of the main reasons for the merger of several cooperatives into The Greenery.

While in The Netherlands several large F&V cooperatives have shifted towards a strategy of vertical integration downstream in the supply chain by incorporating trading companies into the cooperative, thus becoming direct suppliers to the retail, in Belgium the cooperatives remained mainly sales organisations for their members. Thus, no diversification into selling tropical and other non-member products has taken place in Belgium.

Both in Belgium and in The Netherlands the cooperatives are very international. Not only do they sell most of their products to foreign customers, they also often have foreign suppliers. However, the cooperatives in Belgium seem to be more popular among Dutch growers than vice versa, given the switch that many Dutch growers have made towards Belgian auctions.

Price determination

While in the Netherlands the auction clock is almost completely abolished, in Belgium it is still the dominant price determination mechanism.

In the Netherlands, contract brokering is done by each of the cooperatives individually, in Belgium the main vegetables cooperatives have delegated this task to one organisation, LAVA. This reduces competition among cooperatives, as all buyers seeking contracts must deal with LAVA.

The large scale use of the auction clock implies that there is more transparency in the market for fruit and vegetables in Belgium than in The Netherlands. Because of this transparency the auction clock leads to higher trust of growers in their cooperative, because it is much easier for the grower to assess the operation of the auction clock, while it is much more difficult to assess whether the brokers working at the cooperative have obtained the best price for the growers.

Role of trading companies

In Belgium the major retailers buy directly at the auction cooperatives. They can also buy at different auctions simultaneously. In the Netherlands, retail mainly purchases its F&V from service providers (wholesalers), who buy from cooperatives.

The Netherlands has, traditionally, a much larger F&V trading industry. Many large international trading companies are located in the West (port of Rotterdam or Westland production area) and in the Southeast (near Venlo, a major production area and logistic centre for products going to the German consumers in Ruhr area).

The presence of major trading companies may have a negative effect on collaboration among cooperatives. Because of the strong competition, the trading companies have established close relationships with producer organisations. POs that have established such bilateral relationships are reluctant to give up this relationship.

Culture of collaboration and consultation

In the Netherlands there seems to be more competition among the cooperatives, while in Belgium there seems to be relatively more collaboration. This collaboration takes place in the interest organisation VBT (which is a much larger organisation with many more activities than its Dutch counterpart Dutch Produce Association, DPA), as well as in joint ventures like LAVA. Another form of collaboration among cooperatives is the option for buyers to simultaneously buy at different auction, and the option for growers to sell at another than the own auction.

One of the interview respondents also mentioned that Belgium has a stronger culture of collaboration and consultation than The Netherlands. Dutch cooperatives tend to fight more in public, while Belgian cooperatives fight behind closed doors but step into the open with a common agreement and a joint opinion.

The Belgian cooperatives seem to have a close relationship with the governmental authorities, particularly in Flanders. This is also reinforced by the active promotion of the F&V sector by the Flanders authorities. Good consultations between sector and state makes it more easy to develop and implement policies that are in the interest of the industry as a whole.

Cross-border collaboration

Belgian and Dutch cooperatives also collaborate internationally. Several of the international POs and APOs that are based in Belgium are joint venture among cooperatives from The Netherlands and Belgium (such as In-Co) or among cooperatives from The Netherlands, Belgium and Germany (such as EFC).² Also growers that produce for the processing industry often collaborate in international bargaining associations, such as B.N.D. Internationale Telersvereniging that has members in Netherlands, Belgium and Germany, and Vegras, that has members in Belgium, the

² For a detailed case study on the European Fruit Co-operation (EFC), see Bijman and Saris, 2012.

Netherlands and France. These bargaining associations are also POs recognized under the CMO for F&V.

Implementation of EU policy on CMO for F&V

As to the implementation of the EU policy on F&V, particularly the policy on POs and the financial support for the operational programmes of the POs, there are major differences between The Netherlands and Belgium.

The Belgian cooperatives, in close consultation with the Belgian National and Regional Authorities, have decided to use the financial support mainly for investments by the cooperatives themselves. Thus, most of the funds are spent by the cooperative and not by the members of the cooperative.

In the Netherlands, however, a large share of the funds obtained by the cooperatives is used for investments done by the members of the cooperative or groupings of these members. Thus, in the Netherlands the producers (and producer groups) become the owners of the assets that are purchased with the EU financial support, while in Belgium the cooperative is the owner of the assets.

An advantage of the Belgian model is that it strengthens commitment of the members to the cooperative, for instance because the financial support leads to lower auction fees. Another advantage lies in the prevention of conflicts between different member groups over the use of the funds that, in the Dutch model, can be channelled to those groups. Finally, the Belgian model does not give an incentive for growers to claim part of the EU funds for the investments made by a specific group of growers or even individual growers.

5. Overall conclusions

After 80 years of similar evolution, the development of F&V cooperatives has been divergent over the last 20 years. In the Netherlands, several cooperatives have pursued a strategy of becoming preferred suppliers to the retail. This implies broadening the product portfolio. While it has the advantage of close contact with the retail, it has the disadvantage of more heterogeneous interests within the organisation, both among managers and growers.

The Netherlands have shown an enormous increase in new producer organisations over the last 15 years. Most of them play a minor role, but several have developed into major new F&V cooperatives. These new cooperatives have also become recognized POs. Several of them have entered into close relationships with trading companies, thus establishing close coordination between production and trade.

The implementation of the EU policies on the CMO for F&V has been quite different in Belgium compared to The Netherlands. In the Belgian model financial support is used for investments by the cooperative, while in The Netherlands also grower investments have been subsidized. The Belgian model seems to reinforce collective action at the level of the cooperative, while the Dutch model opens the opportunity for more conflicts between producer groups within one cooperative or between producer group and the cooperative as a whole.

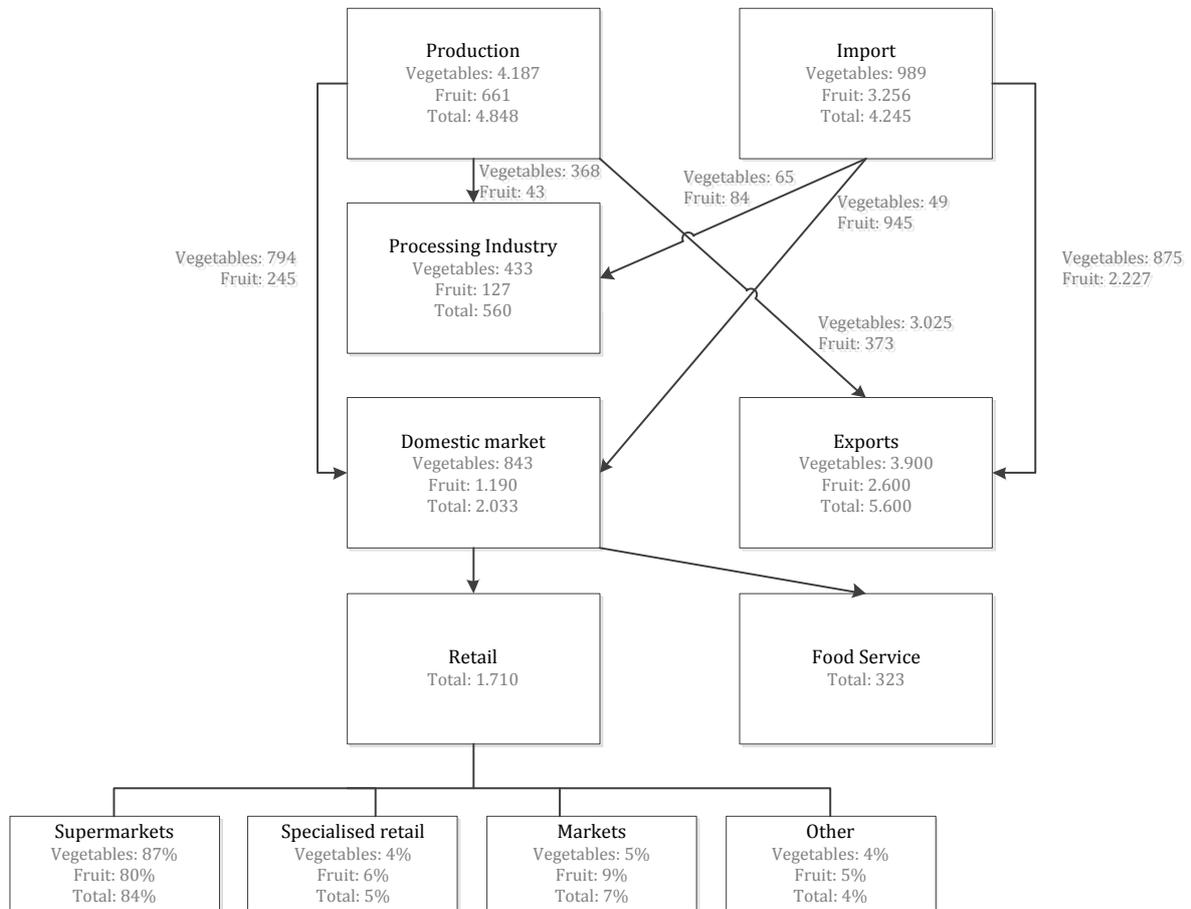
The use of the auction clock serves to maintain high transparency in the market. Such transparency is appreciated by most growers. Those Dutch growers that have switched to selling their products in Belgium have often mentioned this transparency in the market as one of the main reasons to make the shift.

Next to a number of differences between the developments and experiences in Belgium and The Netherlands, cooperatives in both countries agree on two issues related to policies. First, the collaboration among producers organisations, both domestically and across European borders, should be facilitated and supported, particularly in times of crises. Second, the competitions authorities in both countries (as well as in other EU Member States) seem to become more and more strict on collaboration among cooperatives. This is not only against the traditional culture in the agrifood sector, where farmers have always learned from and helped each other, but it also prevents farmers to improve their bargaining position in the food chain. Currently competition authorities only seem to allow collaboration in new legal entities (like mergers of cooperatives or APOs), but in reality collaboration is not a black and white issue. There may be many situation where collaboration is desirable from a social welfare perspective but where a full merger between cooperatives is not possible for legal, fiscal, cultural or even political reasons.

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Appendix A. Distribution Scheme of Dutch F&V Sector



Source: Van den Berg et al., 2011

Appendix 2. New F&V cooperatives established in The Netherlands during 1990 - 2000

Name	Established	Membership (in 2001)	Main Products
Unistar	1993	35	fruit
Cherrytomaat	1995	3	tomatoes
Rode Parels / Red Pearl	1995	10	tomatoes
Gartenfrisch	1995	65	tomatoes
Prominent	1995	22	tomatoes
Present	1995	10	tomatoes
Quality Queen Growers Group	1996	27	peppers, cucumbers, tomatoes
Frutanova	1996	7	tomatoes
De Smaaktomaat	1996	81	tomatoes
Komosa	1996	89	cucumbers
Oranje Paprika	1996	29	peppers
Rainbow Growers Group	1997	21	greenhouse vegetables
Sweet Color Pepper	1997	22	peppers
Witte Paprika	1997	4	peppers
Spruiten	1997	417	sprouts
Greenco	1997	9	tomatoes
CCH	1998	5	mushrooms
Fossa Eugenia	1998	18	tomatoes, aubergines, lettuce
Rijko	1998	280	vegetables for processing
Green Nature Group	1998	5	tomatoes
White Pearl	1998	16	cauliflower
Natures Best	1998	9	cucumbers
Fresh Orange	1998	7	peppers
Best Growers Benelux	1999	50	greenhouse vegetables
Diana	1999	5	tomatoes
Rainbow Paprika Telers	1999	7	peppers
Vers Direct Teelt	1999	33	greenhouse vegetables
Quality Growers Holland	1999	3	chicory
Green Connection	2000	23	peppers

Source: Bijman, 2002.