Producer Organisations in Flanders (Belgium) Horticulture

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Abstract. The Flemish horticultural growers are united in producer organisations, i.e. cooperatives organising the auction markets. The cooperatives set up the entire infrastructure that allows for a transparent market: quality, supply, logistics, grading, storing and auction sales. This illustrates the co-operation and networking that is needed between several actors in order to come to a competitive and performing industry. Moreover, fruit and vegetables must be completely reliable and traceable. This is a sacrosanct principle and the reason why Flemish auction to align with the HACCP (Hazard Analysis Critical Control Point) standards. Flanders auctions are determined to bring renewal by innovations in product development (new varieties) and market structures (new value chains).

Keywords: horticulture, producer organisations, chain management, auction sales, fruit and vegetables

INTRODUCTION

Typically for the Netherlands and Belgium, more than 90% of all fruit and vegetables are marketed through producer organisations. The EU-25 mean is only 33% (39% for EU-15), and the percentage is even lower in France, Spain and Italy, the three most important fruit producing Member States. Moreover, while in Spain, there are several hundreds of producer organisations, in Belgium 90% of sold products are done by only a few associations. In Flanders, 15 producer organisations make up a total of 17,200 members. Producer organisations are legally defined as cooperatives. Already in the 1920’s small numbers of fruit farmers united in local cooperatives, organising their own fruit and vegetable sales. Most farmers would sell their fruit to export firms, while these firms easily took advantage of the competition between producers. After 1950’s the fruit cooperatives started to gain importance. A steady process of scale enlargements results in the present situation. Flanders also is involved in European cooperation: Veiling Haspengouw created as trans national cooperation with colleague producer organisations in Holland and Germany (European Fruit Cooperation).

REQUIREMENTS FOR COMPETITIVE MARKETING

Producer organisation can be said to create the circumstances that economic theory assumes to be naturally present. Economic theory is built upon the concept of competition between all economic actors (i.e. every producer/seller competes with all other producers/sellers; every consumer/buyer competes with all other consumers/buyers). This concept for its part is based on conditions as follows.
- Atomicity of the actors: no individual seller or buyer has a noticeable influence on the price settlement (i.e. the actors involved are high in number and of more or less equal power).
- Transparency of the market: there is directly available information on what is being sold, when it is being sold, and how the price is being settled.
- Fluidity of the market: there is direct possibility to adapt offer and demand (i.e. buyers/sellers can easily increase or decrease their demand/offers).
- Homogeneity of the product: each unit of a product has the same qualities. The qualities can be identified and denoted independently of the seller.

The four conditions of full competition can not be assumed to be pre-given. Economic actors have to bring forth a situation where these conditions are made to be true, for example by facilitating the information on offers and bids or by preventing collusion possibilities between buyers. The economic actors are not stabilising or regulating a market, but actually making a market. On a broad scale, the EU, in its involvement for the common organisation of the market (producer organisations), typically is an actor creating the conditions for economic theory to be true. It introduces regulations and structure in agricultural trade. It settles classifications and standards, in order to give products objective descriptions, independent of its producers.

Similarly, on a smaller scale, producer organisations are basically regulating and structuring the sales. As a consequence, the EU stimulates their role. Producer organisations organise the market in accordance to economy. Auctions are at the core of this organisation: there are various forms of auctions and how they operate in fruit markets. Producer organisations create the conditions of full competition. On a commercial level atomicity, transparency and fluidity are created. On a production level homogeneity is created.

**AUCTION SALES**

An auction is a formally organised competition where each time one seller offers a product and buyers compete in offering the highest price for it. An auction is moreover defined by a unity of place and time: it is an identified, traceable product unit that is offered during a limited period. As a rule, the buyers do not interact with each other; they only interact with the auctioneer (or with an electronic and automated price settlement system). Through this setting and its communication rules, auctions create open competition. Auction systems differ according to terms of price settlement and according to the information that each buyer receives of the other buyers’ behaviour. Several types are to be distinguished; the first two are open auctions – during bidding time each buyer can see which price the others are offering – in contrast with sealed auctions.
- Most common is an English or ascending-price auction. The auctioneer sets a starting price and buyers successively give higher bids. Eventually, the item is sold to the highest bidder. Several supplementary rules can guide the auction, e.g. a pre-set end-time, or a minimum price increase for each successive bid.
- In a Dutch or Flemish descending-price auction, the auctioneer departs from a very high price. A stopwatch is set in motion. The progress in time equals a decrease in price. The customer who first knocks down or calls “mine”, wins the bid. In effect, when a single product (instead of a multiple product) is being sold, in this system there is only one bid.
- In a sealed price auction, all buyers independently make an offer. The item is sold to the customer who made the highest bid. The buyer pays the price of his offer.

Ascending-price auctions are common in selling real estate or valuable goods. The system is however time-consuming. With large and multiple units the descending auction
types are more common. Moreover, with multiple units a buyer’s option can be introduced. This means that the first winner of a good, can buy as many units he wants at the price he offered. Then the second round of bidding starts, and so on, until all units are sold. An auction should be a transparent transaction: all buyers make their offers, and the highest bid wins the item. However, a competitive price can only be obtained if a sufficient number of potential buyers are aware of the auction. Also, collusion between buyers has to be prevented. A seller can therefore set a reserve price, i.e. the minimum price he wants before he will sell the item. This price can be made public or kept secret.

Flanders auctions use a descending-price auction with a buyers option. With each lot that is auctioned, the first winner takes the amount he wants. Then – while the clock is running – the second winner takes his amount, and so on, until the entire lot is sold. In this respect, there are several bids in the descending-price auction. But over-supply can damage the good functioning of the system and that is the reason why the Dutch fruit auctions do not sell any more over this electronic system, almost 100 years after introduction. In Flemish fruit auctions, approximately up to 50% of the volume is sold through mediation.

In contrast, the fruit markets of Osaka, use a sequential first price auction: with each lot all buyers make an offer for the amount they want. First the highest bidder takes the amount he wants at the price he offered; then, depending on the left over amount, the second highest bidder can buy his amount at the price he offered. And so on for the other bidders until the lot is entirely sold.

CREATING ATOMICITY, FLUIDITY AND TRANSPARENCY

Atomicity. The producer organisation can be said to guarantee atomicity both on the level of sellers and buyers. The sellers – the fruit of vegetable producers – are high in number within each cooperative, and although the producer organisation unite both professional and occasional producers, there are no dominant or monopolising producers. Moreover, the cooperatives are non-hierarchical by nature. They are legal and factual co-operations. They are owned by the producers, and all strategic decisions are taken in general assembly. Each producer owns one or more shares, giving access to one vote or an equal number of votes. In most Flemish auctions no producer can have more than 10% of the shares or votes. The producers are the members and the owners of the association. As a consequence, daily management is delegated to a professional staff.

On the level of the buyers atomicity is guaranteed via the auction’s descending-price with a buyer’s option. During one auction a series of lots are offered. For each lot, the first buyer buys the quantity he wishes, leaving the rest of the lot for other buyers who will pay a different price, according to the market situation. In this way, all buyers compete at the same level: whatever the magnitude the buyer wants to have, he has the same chances as the other buyers. The buyer’s option forces buyers to quickly follow, once buying has started. As a descending-price auction requires quick reactions of the buyers, the system is said to give an advantage to the sellers and to lead to higher prices in case of limited supply.

Fluidity. Fluidity is more difficult to organise. With fresh fruit and vegetables a small surplus on the market can have dramatic consequences for prices, as a consequence and in line with the fluidity requisite ‘producer organisations have the right to withdraw any of the products covered by the fruit and vegetables regime, in whatever quantity and for whatever
period they consider appropriate’ One component allowing the producer organisation for fluidity is their storage capacity. For example, auctions have refrigeration complexes at different locations, where apples and pears are being kept under ‘ultra low oxygen’, which allows to halt the fruit’s ageing process. Supply and shipping also involve conservation techniques. Similarly, the associations will plan the auctions by advising the producers to start picking according to the optimal sales time (direct sales to the market, sales after storage). Although the producers have the liberty to decide at which moment they will bring their harvest to the auction, they do not have the possibility to offer their products to other channels than the association they belong to. If they offend this rule, they are excluded from the association.

**Transparency.** Finally, Flemish auctions are characterised by transparency of the transactions. Buyers and sellers can see how a price is fixed. As there is no communication between the buyers, no collusion is possible. Several auctions can be organised at same time (simultaneous sales, introduced first in Flanders). For example the Belgische Fruitveiling and the Veiling Borgloon organise common auction sales so that all buyers compete for the products of the two associations together. Within the auction it is also possible to participate in the auction via the internet. In both cases this means that the buyers do not see the actual product. This only makes sense because the standardization of the product is sufficiently precise for the buyers to know which product they are buying. At this point one has to look at the product itself. Actually, selling via the internet and with several auctions at the same time, also is an element in realising fluidity: the market reacts directly with limited transaction or transport costs.

**MAIN ADDED VALUE: HOMOGENITY**

The main added value that cooperatives generate is the objective identification and classification of products. Only products that can be unambiguously denoted and labelled, can be said to be identical to each other (or different from each other). And only if they are identical can they become quantifiable. The producer organisations therefore contribute to the development of classification systems, and more important, they apply them. Once products are sorted and graded, they are packed in standard formats, which further contributes to the quantification of the product.

**Classification systems.** The importance of classification systems in the standardisation of products is strongly underestimated. More specific, the EU defined marketing standards for most kinds of fruit and vegetables. For example, Jonagold – the most common apple variety – together with its varieties, is defined according to its size and surface colours (green or greenish yellow with at least 10% of red). Further classification of Jonagolds includes a distinction in classes according to the percentage of red on the surface (A1, A2, ..B1, B2...) and a qualification according to the base colour (++ for extremely green and firm, + for greenish yellow, ...). Producer organisation push classifications still deeper, leading to a full analytical description of a product. Each specific brand – which might be exclusively produced by the association – has a further specification of its qualities. Truval and Haspengoud, brand names cherished by the auction, are defined by its class (AE++, A1++ and A2++), its diameter (70-75/75-80/80-85/85-90), its sugar content (min. 13% brix) and its colours (40% red on an extremely green base). There are even some further prescriptions on the homogeneous presentation per crate and on the traceability of the product.
**Sorting and packing.** Applying the classification systems is the main production activity of the associations. Apart from defect sorting, products are mostly automatically sorted according to standards of diameter, shape and skin. One spectacular classification device, notably for apples and pears, are cameras that take 25 to 30 pictures of each product which allows for the automatic measurement of the colour surface area and density. All in all, the classification is fully automated, which is the main guarantee of neutral judgement. Packing systems finalise the production. The auctions uses a whole range of bulk, crate and small packages in various materials—wood, plastic or cardboard. Each format equals to a standard quantity. The final result is a quantified homogeneous product. As a consequence ‘the standards allow producers to describe their products and give indications of their market value without physical presentation’. At the buying side, the trader, even if he hasn’t seen the product, knows what he is buying. The standards allow for acting at a distance. The buyer doesn’t have to travel around and can be present at many places at the same time.

**INNOVATION**

*Better3Fruit* (read Better Tree Fruit) is a spin-off to the University of Leuven. It is a young company that is determined to bring renewal into the fruit sector by innovations in product development (new fruit varieties) en innovations in market structures (new value chains). Better3Fruit was established in 2000 having foundations built on 12 years of research and development by N.V. Johan Nicolaï tree nurseries in cooperation with the Laboratory for Fruit Breeding and Biotechnology of the K.U. Leuven. The technology that lies at the core of our product development combines traditional techniques, that have been applied in agriculture for many years, with new, state-of-the-art technologies that make breeding more efficient and focused. The result of this R&D programme is a range of new unique fruit varieties, far superior in their taste and quality and now available. Better3Fruit is deeply concerned that the high intrinsic quality of fruit is preserved along the total production and distribution process. Only in this way results on offer to the consumer of higher quality and safer product. Better3Fruit has a clear mission: to develop new fruit varieties that will satisfy the demands of today's consumer and of the fruit industry with respect to quality, safety and health. This mission is summarized in our simple name, ‘Better3Fruit’. New and better fruit: that is their mission. For this reason the introduction of new varieties through commercial structures (clubs) whose is aimed to balance supply and demand as well as to safeguard the quality and safety of the end product. This requires a vertical cooperation which, we believe, will create a win-win situation for all players in the value chain. So far on the market available with introduction of the new apple varieties: NicogreenPBR - Greenstar® and NicoterPBR - Kanzi®

**ENVIRONMENT (MBT)**

Environmentally friendly cultivation (MBT) covers 90% of the Flemisch production of fruit and vegetables and is based on registration, GAP, HACCP and Eurep-GAP.
- Registration. Both the parcels as well as the crop protection agents and the harvest itself are registered exactly. This ensures that fruit or vegetables are traceable at every stage.
- Good agricultural practices (GAP). The grower respect fully and strictly to production guidelines.
- Hygiene. Hazard Analysis Critical Control Point-regulations for fruit with respect to food safety.
- Global-GAP (Eurep-GAP). These are standards that are described in the conditions manual for united European food retailers. They relate, for example, to the application of good agricultural practices (fertilizers, water usage, etc.), the safe use of pesticides and waste prevention. However, they also regulate on the health, safety and welfare of employees.

**FOOD SAFETY AND TRACEABILITY**

Fruit and vegetables must be completely reliable: a sacrosanct principle. That is the reason why Flemish auctions apply Hazard Analysis Critical Control Point standards. Consequently, anyone placing foodstuffs on the market must request a permit from the Ministry of Public Health, which can only be given if you satisfy the HACCP-standards. By employing the safeguarding HACCP-system, designed to guarantee food safety, Flemish fruit industry picked out the route taken from a to z, as well as the critical points that constituted a risk to product safety. Afterwards, a number of measures intended to reduce those risks to a minimum: measures which are continually enforced and itemised in a manual that makes efficient controls possible. In fact, this practice is applied in production, harvesting, pre-sorting, cold stores and packing. External packing stations must also adhere strictly to the same HACCP-guidelines. When dealing with Flemish fruit or vegetables, the consumer knows straightaway where the the product has come from. This establishes confidence.

Computers provide a solid vehicle allowing complete transparency with regard to the product as it passes through the entire process. Following a product from the beginning to the end, from grower to point of sale, requires a watertight registration system. Therefore a registration card is placed on the bulk bin even at the picking stage which lists, for example, the producer, the variety, the picking date, the parcel and the weight. Furthermore, our pre-sorting units provides each batch with a barcode on the bulk bins thus making them completely traceable. Even internal and external packing stations provide small-scale packaging with identification information such as this. The crate labelling shows all the data necessary to guarantee complete traceability.

**CONTROLS**

**Internal.** Stringent controls throughout the whole process. Inspectors control the fruit on delivery to the auction on the basis of optical quality, such as colour and skin quality, traceability and packaging. Samples of the fruit on offer are also taken at random. Samples are sent to a recognised laboratory in order to check for residues. Moreover, samples are taken when laying stock down for storage cold stores and during storage. These samples are then controlled in laboratory for internal qualities, such as firmness and sugar content. This enables us to monitor the quality of our stock in the cold stores.

**External.** The MBT determines the regulations for fruit production. Controls to verify observance of these regulations are performed rigorously by recognised and independent inspection bodies. They visit the growers at the farm, examine the conditions manual and take samples of fruit, leaves and soil. All growers are externally controlled on GlobalGAP and MBT. The Belgian Food Agency is the official control organization of the entire food chain. Every grower is obligatory registered and contributes (by law) for this control.

**CONCLUSIONS**

Bringing together growers of fruit and vegetables in producer organisations able to organise the auction markets has been very successful. The cooperatives can set up the entire
infrastructure needed for a transparent market: quality, supply, logistics, grading, storing and auction sales. This illustrates the cooperation and networking needed between several actors in order to come to a competitive and performing industry.

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REFERENCES