



Rabobank

The world of vegetables

Challenges and opportunities for
vegetable suppliers



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Summary

The vegetables sector is characterised by variety, not only in terms of the diversity of crops but also in terms of where they are produced – in almost 200 countries all over the globe. Tomatoes are the world's major vegetable crop, with a global production volume of 125 million tonnes in 2005. Global vegetable production amounted to a total of 881 million tonnes and has grown by 56% in the last decade. Asia cultivates by far the most vegetables in the world and has also shown strongest growth over the last decade. Much of this growth can be attributed to China which cultivates over 22 million hectares of vegetable crops on a global total of 52 million hectares. Productivity improvements have been achieved in the vegetables sector for a variety of reasons, including the use of higher quality inputs (e.g. seeds), technological advances, better management skills and the increased use of covered vegetables production.

In 2004 over 28.4 million tonnes of fresh vegetables were traded globally, which is only just over 3% of global vegetable production. This is relatively limited compared to the fresh fruit sector, in which over 6% of global production volume is traded. The limited export of vegetables indicates a high level of self-sufficiency for most countries. Nevertheless, global vegetable trade is growing steadily and registered annual growth of 4.6% in the period 1994–2004. Improvements and innovations in cool logistics and increased availability of a cool chain infrastructure in (potential) export countries will have a positive influence on global vegetable trade. Tomatoes, onions, watermelons, peppers and cucumber together represent over half of the vegetable volume traded in 2004.

As most vegetables are perishable by nature, the product is best consumed shortly after harvest but in most cases there is a time gap between harvest and consumption. Climate-controlled storage and distribution is often required to safeguard the quality of fresh vegetables, even though in the end deterioration is inevitable. Processing provides a good solution to increase the shelf-life of vegetables; at the same time, processed vegetables provide convenience in the kitchen of the consumer or professional foodservice companies. China is emerging as a major producer and exporter of a variety of processed vegetables, including canned and frozen. Pre-cut, fresh vegetables are usually not included in the definition of processed vegetables. However, the pre-cut produce segment is growing at fast pace in developed markets; the United States (U.S.) is leading in this industry and has reached annual sales over USD 12 billion.

Although most vegetable suppliers are not in direct contact, the end consumer is ultimately what it is all about. In between supplier and consumer, there is a wide variation of distribution channels including wet markets, supermarkets, specialty shops, home delivery, restaurants or canteens. Although vegetable supply chains

are organised differently all over the world, the mainstream trend is that more and more vegetable suppliers (growers, traders, processors included) are adapting to a more demand-driven approach, in which there is a need to cater to the requirements of the various distribution channels, in particular the large food retail chains and foodservice companies, whilst at the same time understand and fulfil the needs of consumers.

Vegetable companies are often involved in more than one link in the vegetable chain; moreover, their portfolio is usually not limited to vegetables alone. The world's largest companies (in terms of total annual sales) are based in the U.S. and are involved in the primary production, trade, processing, marketing and distribution of vegetables, often in combination with fruit. Besides these large multinationals, world-wide there are tens of thousands of smaller enterprises involved in the processing and trade of vegetables. Despite merger and acquisitions taking place regularly, this sector will remain fragmented for the foreseeable future.

Vegetable seed companies stand at the very beginning of the vegetable value chain. The challenge for these companies is to develop vegetable varieties which, on the one hand, have good growing properties (disease resistance, uniformity and high yields) and, on the other hand, appeal to consumer desires (new tastes, convenience and novelties).

Most vegetable growing operations are family-owned businesses, requiring all-round skills from the owner-entrepreneur. Growers need to continue to find ways to optimise their production process by means of improved inputs (seeds) and advanced cultivation methods. On the other hand, they need to focus on the requirements of their specific buyers and, at the same time, understand and anticipate consumer needs in order to take a pro-active rather than a re-active approach. The fragmentation of the industry and the small size of most individual growers does not give them a strong position vis-à-vis their larger buyers, especially as retail chains require large, uniform volumes preferably all year-round. Co-operatives, joint ventures, grower groups and other forms of cooperation are possible solutions in meeting these increasingly tighter customer requirements and give a better position in being in direct contact with retailers or foodservice companies.

As vegetable supply chains become increasingly driven by chain retailers and foodservice companies, coordination of product flows beyond the farm gate becomes increasingly important. Traders can take up the role of coordinator in the value chain and pursue a relationship-driven approach rather than a transaction-driven approach. Moreover, with the increasing demand for year-round supply, higher volumes of import and export will only augment this coordinating role.

Increased food retail power puts pressure on branded vegetable companies in two ways: growth of private labels at the expense of branded products and the reduction of the number of brands on the supermarket shelf. Producers of

processed vegetables with a long shelf-life, in particular the canning industry, are encountering stagnating consumption in high income regions. The area of convenience and health products provide new opportunities and is still a large unexplored area for most processors. New processing and packaging technology enables fresh vegetables to be presented in a convenient format (e.g. increasing shelf-life of fresh pre-cut vegetables) while maintaining aspects of health, safety and freshness.

Introduction

The vegetables sector is the livelihood of millions of growers and thousands of traders and processors all over the world, with a current volume of over 880 million tonnes vegetables produced globally and expected to reach the one billion tonne mark by 2010. However, this production growth is not without its challenges. Vegetable suppliers, whether growers, traders or processors, need to not only keep a close watch on their competitors but more importantly monitor and anticipate developments in consumer demand and distribution channels. The free market environment in which most vegetable suppliers operate does not offer protection for those who stay behind; on the other hand, plenty of opportunities exist for those who are able to adapt.

These dynamics are good reason for Rabobank to publish a dedicated report on vegetables, giving a broad overview of the vegetable value chain and major dynamics as well as challenges and opportunities for vegetable suppliers.

This study has been published in line with Rabobank's long-term commitment to international food and agribusiness. It is one of a series of publications undertaken by the global department of Food & Agribusiness Research and Advisory.