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An Effective Way Towards Cool-Chain Management for Horticultural Produces

## MARKET BRIEF FOR FROZEN VEGETABLES IN THE EU MARKET



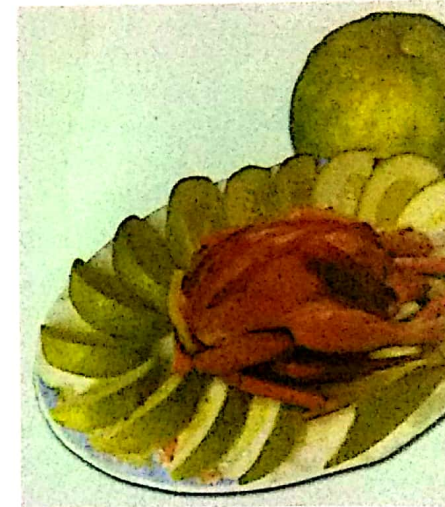
**HORTEX FOUNDATION**

**Horticulture Export Development Foundation**

Helping the nation build up a market oriented  
horticulture export base since 1997

March 2007

**Market brief for  
FROZEN VEGETABLES  
IN THE EU MARKETS**



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## **FOREWORD**

*International trade is now passing through a critical phase, as the whole world is virtually turning into a global village. In this first changing globalized world economy, it is quite obvious that competition will become severe and business will be tougher, particularly in the international perspective. Unless the best quality products are offered at competitive prices, it will be extremely difficult for a country to survive and sustain in export markets. This is more so for food items, like fruits and vegetables where the slogan of **safe and quality** food all along the supply chain from **farm to table** is gaining ground across the world on customer health and environmental considerations. The future is thus both challenging and hazardous, although the opportunities also loom large.*

*To meet this challenge and sustain in the future horticultural export markets, Hortex has already initiated a number of developmental and promotional work which is appreciated both at home and abroad. One such work relates to the dissemination of market information and market intelligence, so as to facilitate better understanding about the market scenario and better preparation for export.*

*This handbook is a modest attempt in that direction and specifically deals with **Frozen vegetables and the EU market**. It gives clear ideas about the market trends, market behaviour, consumer preferences, market access/entry requirements, distribution channel and even some contact addresses. The objective is to assist the existing as well as potential manufacturer exporters in developing a professional approach to **Frozen vegetable** marketing with all the useful information readily available to them in a handy manner.*

*Hortex will consider its efforts amply rewarded, if the handbook is found useful by those whom it is intended for.*

*Dated, Hortex Foundation  
March 07, 2007*

*Md. Akmal Hossain  
Managing Director (incharge)*



## Market brief for Frozen Vegetables in EU

*(This brief is not comprehensive and exporters will need to initiate discussions with importers for more detailed information. It is essential that any exporter should make full enquiries regarding potential partners before entering into a commitment to trade. No recommendation to trade is intended with this study.)*

### Introduction

Export market of frozen vegetables is quite big and an entry into this market is relatively easy compared to fresh produce because of its stringent quality requirements and short self life. With the development of the frozen industry in the country, economic utilization of seasonal vegetables surplus could also be ensured and export market would be constantly fed with.

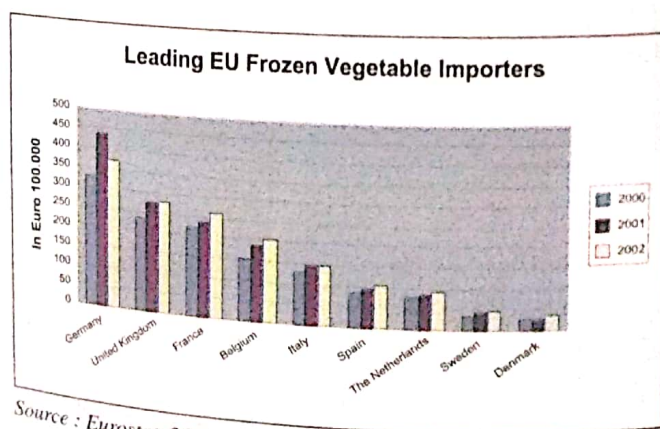
The frozen food industry is one of the largest and most dynamic sectors of the food industry and has now grown to a value of over US\$75 billion in the USA and the EU region alone. Over the last half-century, a rapid growth in per capita consumption of frozen fruits and vegetables was recorded throughout the world.



## The EU Frozen Vegetable Market

The demand for frozen vegetables in the EU (we are taking 15 member countries as of 2003, now extended to 25 member countries) is substantial in the food service sector. It accounts for about 24% of the frozen food sales in the world. Since ownership of freezers became common, freezing has been an accepted means of preserving vegetables for consumption out of season. This market is expanding day by day due to convenient of storage, the competitive pricing and low preparation needs.

Frozen vegetable was the fourth largest product imported into the EU, accounting for 13 percent in value and 20 percent in volume (Eurostat, 2002). Both value and volume increased in 2002, compared to 2001, by 1 and 7 percent respectively. The leading importer of frozen vegetable in 2002 was Germany, accounting for 22% of imports by EU member countries, followed by the United Kingdom (16%), France (15%), Belgium (12%), and Italy (9%). Together these countries accounted for 74% of total value import into the EU in 2004. Frozen vegetable import by the top nine EU countries are shown graphically below:



Source : Eurostat, 2002

## Product description

This market brief deals with frozen vegetables classified under HS nomenclatures of the following headings:

HS Code		Name of the Produce
0710		<i>Vegetables, frozen</i>
0710	10	<i>Potatoes, frozen</i>
0710	21	<i>Peas, cooked, uncooked, frozen</i>
0710	22	<i>Bean, cooked, uncooked, frozen</i>
0710	30	<i>Spinach, cooked, uncooked, frozen</i>
0710	40	<i>Sweet corn, cooked, uncooked, frozen</i>
0710	80	<i>Other vegetables, cooked, uncooked, frozen</i>
0710	80	<i>Sweet peppers, frozen</i>
0710	80	51 <i>Mushrooms, frozen</i>
0710	80	61 <i>Tomatoes, frozen</i>
0710	80	70 <i>Artichokes, frozen</i>
0710	80	80 <i>Asparagus, frozen</i>
0710	90	85 <i>Mixtures of vegetables, cooked, uncooked, frozen</i>

Mixtures of vegetables range from simple combination of two types of vegetables to rich, ready-to-cook, and assortments of several groups. Fried vegetables are a family of product which covers single vegetable that is cooked, mainly by frying.



Pre-export storage



Loading from pre-export storage

## Market Characteristics

The European market for frozen vegetables reached its zenith in the early 1990s, when frozen products were seen by consumers as a good alternative to fresh produce. From 1996, manufacturers and distributors started to see substantial decline in profit margins. In Germany, there was no fall in demand for frozen products in favour of fresh produce, but instead an increase as a result of German unification. Similarly, British sales of frozen products rose by 1% in value in 1997, the biggest rise coming in ready-made meals up 8.3%). Far from being result of economic circumstances, the general downturn in sales (they fell by 4% in 1997) is of a structural one. However, frozen foods and ice cream still account for around 3% of a hypermarket's annual turnover, well ahead of hygiene and beauty products, cold meats and cheese from self-service shelves. Experts believe that the market for frozen foods has reached maturity, as market penetration has reached 93%. It is now therefore a question of evolving from merchandising management to seductive merchandising (ITC, 2000).



*Grading for export*

## Market access

The obligations to which producers and importers of vegetable products, as well as producers for registering them, are established in Commission Directive 92/90/EEC of 3 November 1992. The determination of import duties on mixtures and sets containing agricultural products is governed by Council Regulation (EEC) No. 3324/80 of 18 December 1980. Council Directive 76/895/EEC of 23 November 1976 deals with the fixing of maximum levels for pesticide residue in and on fruit and vegetables. These directives are available at the internet site: [www.europa.org](http://www.europa.org)



*Banning out from pre-cooling chamber*

## Trading Practices

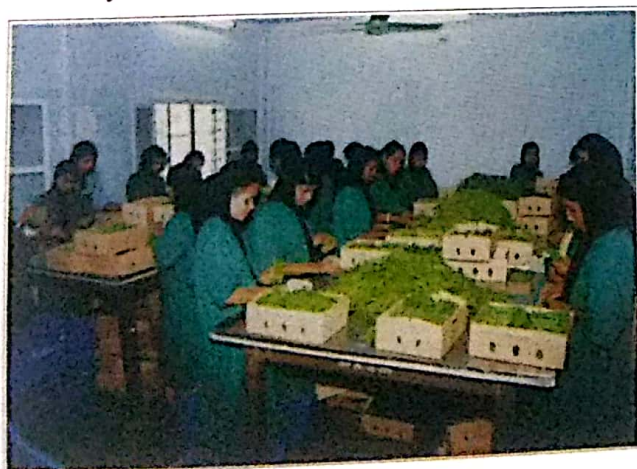
The transportation and sale of frozen products in EU are subject to maintenance of the 'cold chain'. This is an aspect of compliance with the customer's specifications, and entails in particular keeping the products to be marketed within a closely defined temperature range. Frozen vegetables, this is between  $-15^{\circ}$  to  $-18^{\circ}$  C. This temperature must be observed at every phase in the distribution and marketing chain: during upstream and downstream transport, during storage an in the shop. Temperature sensors for monitoring cold-chain maintenance can be installed on the various distribution means. Some large distributors even put sensors on frozen food packets so that consumers can see for themselves that procedure has been followed.

Moreover, the product must be frozen within four hours of harvesting so as to preserve the vegetables nutritional value. Potential exporters will find themselves subjected to multiple checks of their cold-chain management from production to the marketing of their products. In Europe, payments between the various participants in the frozen vegetables market are made by direct bank to bank transfer.

### **Packaging and labelling**

The approximation of the laws of the member States relating to the labelling, presentation and advertising foodstuffs for sale to the ultimate consumer is subject to Council Directive 79/112/EEC of 18 December 1978, supplemented by Commission Directive 92/39/EEC on plastic materials and articles intended to come into contact with foodstuffs and beverages. The latter directive applies to plastic materials and articles and parts thereof consisting exclusively of plastic or composed of two or more layers of materials, each consisting exclusively of plastics, which are bound together by means of adhesive or by other means.

Many European countries (e.g. Belgium, France, Germany, the Scandinavian countries and the United Kingdom) encourage the use of environmentally friendly packaging so that the materials used can be recycled.



*Sorting and grading*

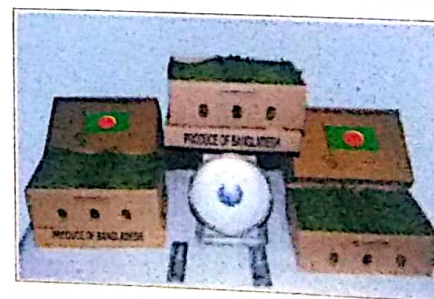
For the purpose of transport, frozen products are placed loose in plastic bags and then put in wooden or cardboard containers of various sizes, depending on the product being transported (they usually hold up to 500 kg.). They are then transported in 20-foot or 40-foot containers, mostly equipped with temperature sensors.

### **Sales promotion**

The Frozen and Chilled Food Yearbook lists by country the products and activities of the main participants (e.g. manufacturers, wholesalers) in the frozen food sector in Europe. Frozen Food Byers is a magazine that specializes in trade in frozen products in Europe.

The purchase of a frozen product takes 50 seconds, as compared with 39 seconds for other kinds of products. Shelf layout based on family of origin (vegetables, fish, meat) should be replaced by a layout based on method of consumption (ready to eat, no preparation necessary). Products in refrigerated compartments near the fresh-produce section attract significantly more consumers than frozen products located, as they often are, at the back of the shop.

Lastly, sales increase depends on greater legibility of product price: reading price often leads the consumer to pick up the product and, in 80% of cases, to buy it. Another approach guiding the strategies for manufacturers and distributors is the idea of arranging the frozen food section to match changing seasons, as is done in the fresh vegetables section.



*Weighing for export*

### **Market Outlook**

The EU market for frozen vegetables is a relatively stable market but there can be significant variations from one product category to another. There are opportunities in mixed vegetable and cooked dishes for instance.

Import of frozen vegetables from outside the European Union were close to 100,000 tons in 1999 (source: *Global Trade Information Service*), which is less than 5% of the market in the 15 member States. Of this total, 45% are products in the 0710 80 category ('other vegetables').

### Prices

Given the different nature of the frozen products (various types of vegetables, mixtures of vegetables, etc.) no reference is made to standard international price. However, for information purposes, examples of some retail prices in big supermarkets are given below:

*'Corte Ingles' Store in Madrid in May 2000:*

*Packet of Frudesa sweet corn, 400 gm: Euro 1.4*

*Packet of peas, Corte Ingles brand, 1 kg: Euro 1.85*

*Packet of Bonduelle carrots, 400 gm: Euro 1.4*

*Packet of vegetable stir-fry based on potatoes, carrots, peas and flat beans, Corte Ingles brand, Euro 1.65*

*'Carrefour' Store in France in May 2000:*

*Packet of carrots and peas, Bonduelle brand, 1 kg: Euro 1.57*

*Packet of Bonduelle carrots, 1 kg: Euro 1.36*

*Packet of vegetable stir-fry based on meat, broccoli, potatoes and carrots, Bonduelle brand, 750 gm: Euro 3.68*



*Loading and transporting for air shipment*

### Opportunities for exporters in developing countries

#### Extensive product documentation

A general trend in the food ingredients sector is that importers and food processors in the EU require extensive product documentation in order to guarantee food safety. This means that a product should be accompanied by

complete product specifications, instructions on how to store and to process, documentation on tracking and tracing, information on quality assurance (e.g. HACCP), or even ISO certification. An exporter capable of meeting these requirements will have an improved competitive position in the EU market for preserved frozen vegetables.

### Organic products

Healthy, natural and organic products are occupying an increasingly stronger position in the EU. Organic production is particularly attractive for growers in developing countries, since much of their food production is already organic or can easily be changed to organic.

### Adopt HACCP

HACCP certification is a requirement for processed products from non-EU countries. Exporters, whose processing is certified as such, have a better competitive position to export to EU customers.

Developing countries are already major exporters of tropical and subtropical products to the new EU countries. Apart from direct dealings with the new EU countries, exports can also be realized through trading partners based in the old EU countries. The latter are effectively penetrating the new markets, especially when many trade barriers are no longer there.



*Export packaging*



### Useful Address of EU Importers :

<p><b>GERMANY</b>  Frosta Tiefkuehlkost GmbH  Am Lunedeich 11627572  Bremerhaven  Tel: (+49 471)97 36 117  Fax: (+49 471) 720 76</p>	<p>Mc Cain Foods Belgium  SANijverheidsstraat 22280  Grobendonk  Tel: (+ 32 14) 508 211  Fax: (+ 32 14) 500 301</p>
<p>Gustav Wulff GmbH  Bahnhofstrasse 11C21465  Reinbek bei Hamburg  Tel: (+49 407) 281 540,  Fax: (+49407) 281 545</p>	<p><b>FRANCE</b>  Gelagni Bretagne  BP 10029206 Landerneau  Tel: (+33 02) 98 25 30 00  Fax: (+33 02) 98 25 32 78</p>
<p>Zollner  PilzgrosshandelIndustriestrasse  192439 Bodenwoehne  Tel: (+ 49 94) 341 001  Fax: (+49 94) 343 768</p>	<p>Bonduelle Groupe SA  BP 173  Rue Nicholas Appent  59653 Villeneuve d'Ascq Cedex  Tel: (33 03) 20 43 60 60  Fax: (33 03) 20 43 60 00</p>
<p>Henny Lamotte GmbH  Po Box 103849  28038 Bremen  Tel: (+49 42) 152 390</p>	<p>Borde SA  BP 4Les Gardelles  43170 Sangues  Tel: (33 04) 71 77 70 70  Fax: (33 04) 71 77 70 70</p>
<p><b>BELGIUM</b>  Adrovries SA/N.VWezestraat  618850 Ardoois  Tel: (+32 ) 510 621  Fax: (+32) 513 059</p>	<p>Picard  17, place de la Resistance  92130 Issy les Moulineaux  Tel: (+33 01) 41 09 66 66  Fax: (+33 01) 41 62 06 00</p>
<p>Bonduelle Noord Europa SA  Boerenkrijgstystraat 133  2800 Mechelen  Tel: (+32 15) 569 311  Fax: (+32 15) 555 672</p>	<p>Frigor  3 avenue la Gardette  33340 Carbon Blanc  Tel: (33 01) 41 09 66 66  Fax: (+33 01) 41 62 06 00</p>
<p>Hesbayefrost SA  Rue Emile Lejeune 20  4250 Geer  Tel: (+32 19) 588 434  Fax: (+32 19) 588 847</p>	<p><b>UNITED KINGDOM</b>  Anglo Continental Foods Ltd.  Pelham Road  CleethorpesHumberside DN35 7JT  Tel: (+44 147) 2 603 788  Fax: (+44 147) 2 601 104</p>

<p><b>SPAIN</b>  Congelados de Navarra SA  Crta NA-134KM 1631513  Arguedas - Navarre  Tel: (+34 948) 830 563  Fax: (+34 948) 830 534</p>	<p>Fidus  St George's House  CroydonSurrey CR9 1 NR  Tel: (+44 208) 686 3333  Fax: (+44 208) 681 1828</p>
<p>Industrias Videca SA  Crta Puebla Larga s/n  46270 Castella de la Riebe-Valence  Tel: (+34 962) 452 008  Fax: (+34 962) 454 128</p>	<p>Beldfield Farms  Heywood Cold Stone  Haneshill Road, Heywood  Lancashire OL 102 TP  Tel: (+44 170) 6 694 600  Fax: (+44 170) 6 694 605</p>
<p>Veconsa Vegetables Congelados  SACarrino del Olivar s/n  30560 Alguazas  Tel: (34 968) 620 100  Fax: (34 968) 620 552</p>	<p>Euro Norfolk Foods Ltd.  34 Surrey StreetNorwich  Norfolk NR 1 3 NY  Tel: (+44 160) 3 760 123  Fax: (+44 160) 3 760 124</p>
<p>Bonduelle Espagne  Ctra Valtiera s/n  31320 Milagro - Navarre  Tel: (34 948) 40 90 35,  Fax: (34 948) 40 90 77</p>	<p>Tendafrost Frozen Foods  Wesh March Road  Spalding Lincs  PE11 1BE  Tel: (+44 177) 5 767 571</p>

### Source:

1. *CIB Market Survey: Preserved Fruits and Vegetables, July 2004, The Netherlands*
2. *Market Brief on Frozen Vegetables in France, 2000, International Trade Centre, Geneva*
3. *Processing of Frozen Vegetables and its Export Potentials, Particularly in Bangladesh Perspective, Hortex Seminar paper by Md. Akmal Hossian and Dr. Abdul Jalil Bhuyan*
4. *Various Internet site*

## Role of Hortex Foundation

The Horticultural Export Development Foundation (Hortex Foundation) is a non-profit organization which was established by the People's Republic of Bangladesh under the Companies Act for agri-business development, specially the development, promotion and marketing of exportable horticultural produces with particular emphasis on high-value, non-traditional crops to high-price non-conventional markets. In the area of both export diversification and production expansion, Hortex Foundation is playing a catalytic role in providing:

- (i) technical assistance in respect of production and post-harvest handling including sorting, grading, packaging and transportation;*
- (ii) cool-chain facility from production centre to the point of shipment;*
- (iii) packaging cartons of international standard;*
- (iv) market information and market feed back;*
- (v) training on the Total Quality Management (TQM);*
- (vi) monitoring produce quality through the production and marketing chain*



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