

CBI MARKET SURVEY

THE RICE AND PULSES MARKET IN THE EU

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This survey was compiled for CBI by ProFound - Advisers In Development in collaboration with Mr. Bart Rouwers of Caribecom Trading & Consulting.

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REPORT SUMMARY

This CBI market survey covers the EU market for rice and pulses. The emphasis of this survey is on those products (rice, beans, chickpeas, lentils and other leguminous vegetables) which are of importance to developing country suppliers. Besides, where relevant and if information available, this study focuses on organic rice and pulses. Statistical market information on consumption, production and trade, and information on trade structure, prices and market access is provided. Opportunities and threats for developing country suppliers are highlighted and sources for more information are provided.

On global level, the EU market is a small to medium sized consumer of rice and pulses. In 2006, per capita consumption of paddy rice amounted to 9.7 kg. Earlier, in 2004, total human consumption of rice in the EU amounted to 3,374 thousand tonnes with Italy, the United Kingdom, France and Spain as the leading consumers. In general, Southern EU countries show higher rice consumption levels than Northern EU countries. Human consumption of pulses in the EU amounted to 797 thousand tonnes in 2004 with dry beans (HS: 071331, 071332, 071333, 071339) taking the largest share (almost 45%). Again Italy represents the largest EU market for pulses, followed by Spain, France and Greece.

The food patterns in Southern and Eastern EU countries are more closely related to those of Africa and the Middle-East, which is also reflected by the main group of consumers in Europe: ethnic consumers (often immigrants). Other consumers concern vegetarians, consumers of organic foods, consumers interested in ethnic dishes or those focused on health etc. The main trends influencing the consumption of the rice and pulses discussed in this report are a growing number of immigrants and, thus, ethnic consumers and concerns regarding health and safety of food products. Moreover, the consumption of rice and pulses is also expected to rise because of innovative product developments by food manufacturers anticipating the growing demand for convenience products.

The EU is a net consumer of rice and pulses and relatively small production takes place. Italy is the leading producer of paddy rice, followed by some other Southern EU countries. Regarding pulses –mainly dry beans and broad and horse beans–, the United Kingdom, France, Spain and Poland are the leading producers. Chickpeas and lentils are hardly cultivated in the EU and are mainly imported.

In 2005, the EU imported € 1,082 million of rice (mainly milled and brown rice) and € 519 million of pulses (mainly kidney beans). This meant an annual decrease for both product groups of respectively 2% and 4% between 2001 and 2005. India, Thailand and Pakistan are the main developing country suppliers of rice to the EU and China; Turkey and Argentina fulfil that role for pulses. The EU is a strong net importer of both commodities. EU exports of rice remained stable between 2001 and 2005, amounting to € 744 million. Exports of pulses increased strongly by 8% annually, mostly due to strong growth in exports from the UK and France, amounting to € 201 million in 2005. Global trade in pulses grew rapidly between 1980 and 2003 (approximately 5% per year) much faster than the production output. As a result, the proportion of pulse production that is traded increased significantly, from about 7% in the early 1980s to 16% in 2001-2003. Nevertheless, pulse trade remains a relatively thin market, especially when compared to other food commodities.

Due to increased concentration, the trade channel of rice and pulses is basically the same for all European countries and goes mainly through brokers, commodity traders or directly through (rice) millers. Only in the Southern European countries, sales agents are more frequently used.

Developing country producers and exporters of rice and pulses focusing on the trends mentioned and able to offer related products (for example organically certified, GMO-free, processed or niche products such as aromatic rice) find the best opportunities on the EU market. Furthermore, the main consuming countries, domestic production, the main trade

channels and the market access requirements should be taken into account when looking at export opportunities for rice and pulses to the EU.

For more information, please refer also to the additional document *From Survey to Success*, which will help you to evaluate whether or not to get involved in international business, and learn how to go about exporting to the EU.

1 INTRODUCTION TO CBI'S MARKET INFORMATION

CBI provides a wide range of documents containing EU market information. All CBI market information is targeted at developing countries. For the definition of developing countries used in CBI market surveys see appendix B List of developing countries.

Sector specific market information

CBI publishes market information for about 37 market sectors.

For each market sector, the following kind of information is available:

- CBI market surveys on **the EU market in general**, focusing on developments and trends in the field of market size (consumption, production and trade), distribution and prices in the EU. E.g. 'The fresh fruit and vegetables market in the EU'.
- CBI market surveys on **the market in specific EU countries**, focusing on developments and trends in the field of market size, distribution and prices in the EU country concerned. E.g. 'The fresh fruit and vegetables market in Spain'. On average, about 20 documents per market sector are available. Those EU countries responsible for the highest share of total EU imports from CBI target countries are discussed in documents of about 10 pages. Less relevant EU countries are discussed in fact sheets of about 2 to 3 pages.
- CBI market surveys on a **specific product (group)** within the market sector concerned, focusing on developments and trends in the field of market size, distribution and prices in the EU and a number of specific EU countries as well as on business practices. E.g. 'The EU market for papaya'.
- The document **From Survey to Success**, helping you to evaluate whether or not to get involved in international business, and learn how to go about exporting to the EU.
- Information on **market access requirements**, focusing on legislative and non-legislative requirements based on environmental, consumer health and safety and social concerns in the EU and in specific EU countries.

General trade related information

Besides information on specific market sectors, CBI also publishes more general trade-related information, the so-called Export manuals. At the moment, the following Export manuals are available:

- Exporting to the European Union – trade-related information on the EU
- Export planner - how to plan your export process
- Your guide to market research - practical and low cost research methods
- Your image builder - how to present yourself on the EU market
- Your show master - selection, preparation and participation in trade fairs
- Digging for gold on the Internet - internet as a source for market information
- Website promotion - how to promote your website in the EU

These Export manuals can be downloaded from the CBI website at

<http://www.cbi.eu/marketinfo>. Go to 'Search CBI publications'.

How to use the different CBI market information tools

If you are new on the EU market, it is advisable to start by consulting the more general Export manuals, like 'Exporting to the European Union' and 'Export planner', before consulting sector specific information. If you are a more experienced exporter, you can use these manuals as reference material while focusing on the specific information for your market sector.

Concerning the sector specific information, you are advised to start with the information on the EU market in general and the EU export marketing guidelines. After consulting this information, you should have gained a better idea on which surveys on the market in specific EU countries are most interesting to consult. It is advised also to check if a survey on your specific product(group) is available. And it is strongly advisable always to check the documents on market access for your product.

Finally it is stressed that CBI market information serves as a basis for further research, meaning that you should - after consulting the CBI information - further research your EU target markets for more detailed and specific information related to your specific situation.

The rice and pulses market in the EU

This CBI market survey covers the EU market for rice and pulses. The emphasis of this survey lies on those products, which are of importance to developing country suppliers. Statistical market information on consumption, production and trade, and information on trade structure, prices and market access is provided. Opportunities and threats for developing country suppliers are highlighted and sources for more information are provided.

For information on how to get involved in the EU marketplace reference is made to the EU export marketing guidelines. These EU export marketing guidelines can be downloaded from <http://www.cbi.eu/marketinfo> and are especially interesting for more experienced exporters. Go to 'Search CBI database' and select the market sector concerned and the EU.

If you are a starting exporter, it is advised to read this survey together with CBI's 'Export planner' and to use the interactive tool 'EMP Document Builder' on the CBI website.

CBI market surveys covering the market in specific EU countries, specific product(group)s or documents on market access requirements can be downloaded from the CBI website. Go to 'Search CBI database' on <http://www.cbi.eu/marketinfo> and select the market sector concerned and an EU country.

2 INTRODUCTION TO THE EU MARKET

The European Union (EU) is the current name for the former European Community. Since January 1995 the EU has consisted of 15 member states. Ten new countries joined the EU in May 2004. As from January 2007, two more countries – Bulgaria and Romania - joined the EU. Negotiations are in progress with a number of other candidate member states. During time of writing, the EU consisted of 25 member states, therefore, in this survey, the EU is referred to as the EU25, unless otherwise stated.

Cultural awareness is a necessary critical skill in securing success as an exporter. The enlargement of the EU has increased the size of the EU, and also significantly increased its complexity. With more people from culturally diverse backgrounds, effective communication is vital. Be aware of differences in respect to meeting and greeting people (use of names, body language etc.) and regarding building relationships. There are also differences in dealings with hierarchy, presentations, negotiating, decision making and handling conflicts. More information on cultural differences can be found in chapter 3 of CBI's export manual 'Exporting to the EU (2006)'.

General information on the EU can also be found at the official EU website http://europa.eu/abc/governments/index_en.htm or the free encyclopaedia Wikipedia <http://en.wikipedia.org/wiki/Portal:Europe>.

Monetary unit: Euro

On 1 January 1999, the Euro became the legal currency within twelve EU member states: Austria, Belgium, Finland, France, Germany, Italy, Ireland, Luxembourg, The Netherlands, Spain, Portugal and Greece. Slovenia was the first new member state country to adopt the Euro in 2007. Since 2002 Euro coins and banknotes replaced national currency in these countries. Denmark, United Kingdom and Sweden have decided not to participate in the Euro.

In CBI market surveys, the Euro (€) is the basic currency unit used to indicate value.

Table 2.1 Exchange rates of EU currencies in €, average yearly interbank rate 2006

Country	Name	Code	2006
Cyprus	Pound	CYP	1.737
Czech Republic	Crown	CZK	0.035
Denmark	Crown	DKK	0.134
Estonia	Crown	EEK	0.064
Hungary	Forint	HUF	0.004
Latvia	Lats	LVL	1.436
Lithuania	Litas	LTL	0.288
Malta	Lira	MTL	2.322
Poland	Zloty	PLN	0.257
Slovakia	Crown	SKK	0.027
Slovenia	Tolar	SIT	0.004
Sweden	Crown	SEK	0.108
United Kingdom	Pound	GBP	1.467

Source: Ozforex, Foreign Exchange Services, <http://www.ozforex.com.au/>

3 PRODUCT CHARACTERISTICS

Product groups

In this market survey, a selection of products from the following product groups is covered:

Product groups	Products
Rice	Paddy rice
	Brown rice
	Semi-or wholly milled, polished rice
	Broken rice
Pulses	Chickpeas
	Urad and mung beans
	Adzuki (small red) beans
	Kidney beans
	Other Vigna and Phaseolus beans
	Lentils
	Broad and horse beans
	Other leguminous vegetables

Rice

Rice falls under the broader product category 'cereals'. Cereal crops are mostly grasses cultivated for their edible grains or seeds. Cereal grains are grown in greater quantities worldwide than any other type of crop. Rice is the world's third largest crop in terms of production, behind corn and wheat. The crop is not a homogenous commodity; more than two thousand varieties of rice are grown throughout the world. Therefore, the market of rice is not homogenous either. In fact, distinct sub-markets can be distinguished according to a number of criteria, the most important of which are variety, quality (defined mainly by the percentage of broken kernels) and the degree of processing. A distinction can also be made based on the cooking qualities, determined by the length-wide ratio and the lengths of the grain. The soft-cooking rice is short to medium grain rice; the dry cooking rice is longer grain rice. Another classification of rice is fragrant (Basmati and Jasmine rice) and non-fragrant rice.

In trade statistics, rice is mostly grouped together based on the kind of processing:

- Paddy or rough rice is rice as it comes from the field, in this stage rice has retained its husk after threshing; kernels are still encased in an inedible, protective hull. Rough rice or paddy rice is bought from the farmers. This rice is sold in bulk; already at this stage a separation is made between qualities.
- Husked rice (brown rice) refers to rice from which only the external and non-edible husk has been removed and is the least processed form of rice. The bran layer remains, making it more nutritive than white rice. In Europe, this type of rice is often called 'cargo rice' because of the way it is transported by sea.
- Semi-milled or wholly-milled rice is known as white rice. It contains much fewer nutrients than the brown rice, since the kernel is milled and polished and the outer layer (the husk and bran layer) is removed.
- Broken rice is referred to as low-quality rice, broken rice are kernels which are smaller than $\frac{3}{4}$ of the average kernel length. The market of medium-quality rice (more than 10% of broken kernels) is dominated by exporters from the Asian region (Thailand, Vietnam and India) who mainly meet the market demands of developing countries in Africa, Latin America and Asia. The market of high-quality rice, with a low percentage of broken kernels (less than 10%), is dominated by Thailand, Vietnam and the United States.

These product groups also include improved rice (vitaminised rice) and parboiled rice. The latter is paddy or brown rice which has been soaked, steamed and dried before milling, in order to reduce cooking time. It is also widely referred to as fast-cooking instant rice. Parboiling rice drives nutrients from the bran into the grain, so that parboiled white rice is nutritionally similar to brown rice.

→ Unprocessed paddy rice is mostly the point of reference in international statistics on consumption and production (as with FAO). However, in international trade statistics (export/import), processed or milled rice is commonly used, as this is more widely traded than unprocessed rice. In chapter 4 on consumption, figures will be given for unprocessed rice (paddy). FAO only has consumption and production data on paddy rice and not on the other rice sub groups. In chapter 6 and 7 on imports and exports, Eurostat data are given, which includes unprocessed as well as processed rice. Consequently, consumption and production data cannot be readily compared with import and export data.

Pulses

The Food and Agricultural Organization of the United Nations (FAO) defines pulses as annual leguminous crops yielding from one to twelve grains or seeds of variable size, shape and colour within a pod. Pulses are used for both food and animal feed. The term pulses, as used by the FAO, is reserved for crops harvested solely for the dry grain. Therefore, green beans and green peas are excluded as they are considered vegetable crops. Also excluded are crops which are mainly grown for oil extraction (oilseeds like soybeans and peanuts), and crops which are used exclusively for sowing (clovers, alfalfa).

The lions' share of international trade in pulses is comprised of dry peas. However, extra-EU supplies of this bulk commodity are almost completely dominated by Canada, Russia, Ukraine and the United States together. Only Ethiopia is a developing country of some significance in extra-EU supplies of peas. Whilst developing countries hardly play a role in the Extra-EU supplies of peas, the situation is different for the other pulse varieties concerned. Therefore, peas are excluded in this survey and the focus is on speciality beans including kidney beans, chickpeas, lentils and broad & horse beans, since trade in these speciality beans is not dominated by Canada and the US.

Secondly, peas are excluded from this survey as in Europe peas are mainly used as feed crop, whilst the focus of this survey is on human consumption. (For your information; in 2004, EU feed consumption of peas amounted to 3,271 thousand tonnes compared to only 534 thousand tonnes for human consumption).

Organic

Where relevant and if information available, this study will focus on organic rice and pulses. Products labelled as organic are those certified as having been produced through clearly defined organic production methods. However, the product characteristics for organic products are not essentially different from the characteristics of conventional products. Standards for organic food production and labelling in the European Union are laid down in Council Regulation (EEC) 2092/91. This regulation and subsequent amendments establish the main principles for organic production at farm level and the rules that must be followed for the processing, sale and import of organic products from third (non-EU) countries.

Organic farming is carried on in almost all countries of the world. The development that has taken place in the organic market in recent years has been driven in Europe by a solid base of producers and consumers who are convinced of the ecological, social and health benefits of organic methods. Therefore, organic food products are increasingly becoming an established market segment.

It should be noted that the term "organic" is mainly used by the Anglo-Saxon countries, while other countries use the term "biologic". Also of importance is the term "sustainable" agriculture or production, which is often used in literature. Sustainable is a broader term than organic, which, while also including organic, also includes natural or Fair Trade agriculture for example. These types of agriculture do not necessarily have to be organic, but increasingly combined certification of both Fair Trade and organic takes place.

Since the farming systems in developing countries have in general often remained to more traditional agriculture practices, it is relatively easy to go for organic conversion. Combined with a growing and broadening organic market, organic products offer interesting opportunities for developing country producers and exporters.

Statistical product classification

Combined nomenclature (CN)

Trade data based on the Combined Nomenclature are used in this survey. These data are provided by Eurostat, the statistical body of the EU. The abbreviation CN stands for Combined Nomenclature. This Combined Nomenclature contains the goods classification prescribed by the EU for international trade statistics. The CN is an 8-digit classification consisting of a further specification of the 6-digit Harmonised System (HS). HS was developed by the World Customs Organisation (WCO). The system covers about 5,000 commodity groups, each identified by a six-digit code, arranged in a legal and logical structure. More than 179 countries and economies use the system.

The varieties of rice and pulses discussed in this report are covered by Chapter 7 and 10 of the Harmonised System. Refer to Appendix A for a 6-digit HS classification of the products covered in this survey. FAOstat does not use the same classification as the Harmonised System. FAOstat groups all the different species of dry beans together under the same denominator 'dry beans'. The classification dry beans is used in chapters 4 and 5 on consumption and production, and covers the following beans:

- 07 13 31 – Urad and mung beans
- 07 13 32 - Adzuki (small red) beans
- 07 13 33 - Kidney beans
- 07 13 39 – Other Vigna and Phaseolus beans

Statistical data: limitations

Trade figures quoted in CBI market surveys must be interpreted and used with caution. In the case of intra-EU trade, statistical surveying is only compulsory for exporting and importing firms whose trade exceeds a certain annual value. The threshold varies considerably from country to country, but it is typically about € 100,000. As a consequence, although figures for trade between the EU and the rest of the world are accurately represented, trade within the EU is generally underestimated.

Furthermore, the information used in CBI market surveys is obtained from a variety of sources. Therefore, care must be taken in the qualitative use and interpretation of quantitative data, because it puts limitations on in-depth interpretation of relations between consumption, production and trade figures within one country and between different countries.

FAO distinguishes rice and pulses for human consumption and rice and pulses used in the feed industry. In Europe, about 2/3 of pulses is destined for the feed industry. However, this survey is focused on rice and pulses destined for human consumption, consequently, consumption data given in chapter 4 reflect human consumption. Unfortunately, production data and trade data from Eurostat do not differentiate according to market segmentation (human/ cattle). Therefore, data given in chapter 5-6-7 include rice and pulses for feed as well. Consequently, consumption data cannot be readily compared with production and trade data.

4 CONSUMPTION

4.1 Market size

This chapter discusses the EU demand for rice and pulses. Market size, market segmentation and patterns and trends in consumption are treated separately for rice and pulses.

Rice

Global rice consumption increased 40% in the last 30 years, from 61.5 kg per capita to about 86 kg per capita (milled rice), representing 433 million tonnes in 2006. The EU has a relatively marginal role in the global rice sector (about 0.5% of global consumption, 0.4% of global production). The EU imports 3% of globally traded rice; it is the sixth largest importer in volume terms but the fourth largest in value terms, because of the higher than average quality rice imported into the EU (<http://agritrade.cta.int/>). Rice consumption (milled) in the EU is estimated at 2.6 million tonnes in 2006 and is expected to amount to 2.8 million tonnes in 2010 (OECD, 2006).

Per capita consumption in the EU is low compared to other Western markets; about 7.3 kg per capita in the EU in 2005 (paddy rice). Three consumption models can be distinguished:

- Asian model: average consumption higher than 80 kg/person per year (China: 90kg, Indonesia: 150kg).
- "Subtropical" model: average consumption between 30 and 60 kg/person per year (Colombia: 40kg, Ivory Coast: 60kg).
- Western model: average consumption around 10 kg/person per year.

Consumption of milled rice is lower than paddy rice consumption, since it is further processed. Per capita milled rice consumption in the EU is low compared to other Western markets: 5.6 kg per capita in the EU in 2006, 13.7 kg per capita in the USA and 18.8 kg per capita in Australia (OECD, 2006). According to OECD prospects, EU rice consumption (milled) is not forecasted to exceed the 6 kg per capita between 2006 and 2015.

Table 4.1 Human consumption of paddy rice in the EU, in 1,000 tonnes

	2000 Rice	2002 Rice	2004 Rice	Annual average change in rice consumption '00-'04
Italy	480	497	567	4.3%
United Kingdom	359	451	546	11.1%
France	439	459	484	2.5%
Spain	495	465	429	-3.5%
Germany	551	506	303	-13.9%
Portugal	270	272	226	-4.3%
Poland	118	112	112	-1.3%
Greece	111	145	110	-0.2%
The Netherlands	134	141	108	-5.2%
Belgium	63	72	92	9.9%
Hungary	73	93	70	-1.0%
Czech Republic	71	72	67	-1.4%
Sweden	58	64	61	1.3%
Slovakia	43	46	40	-1.8%
Austria	46	5	38	-4.7%
Denmark	25	29	32	6.4%
Finland	33	39	27	-4.9%
Ireland	17	19	22	6.7%
Lithuania	15	14	12	-5.4%
Cyprus	6	6	7	3.9%

	2000 Rice	2002 Rice	2004 Rice	Annual average change in rice consumption '00-'04
Latvia	9	12	7	-6.1%
Slovenia	50	11	7	-38.8%
Estonia	5	5	5	0.0%
Malta	3	3	2	-9.6%
Total EU*	3,472	3,541	3,374	-0.7%

*Luxembourg is not included

Source: FAOstat (2006)

As can be seen in Table 4.1, leading rice-consuming EU markets are Italy, the UK, France, Spain and Germany, together accounting for approximately two-thirds of EU consumption. Also, consumption increased considerably in the three leading consumer markets of rice in the four year period revised. Increasing consumption in the UK is most probably a result of product innovation (Uncle Ben's wet microwavable rice pouches), the establishment of new rice mills such as Indo European Foods (<http://www.satnamoverseas.com>), increased promotion for rice in general and certain brands by the industry as a result of higher competition. It has mainly been Basmati rice which has benefited from this higher consumption.

It is not clear why consumption increased in rice producing countries like Italy and France. In general, Southern European countries show higher rice consumption levels than Northern European countries. Also, a difference in preferences is noticeable: South Europeans traditionally prefer sticky, wet rice for the preparation of risotto dishes (Italy) and paella (Spain). Northern Europeans traditionally prefer dry cooked rice. However, North-European consumers show a growing interest in special rice varieties such as waxy or glutinous rice, Jasmine-type rice, wild rice, and coloured rice (red, black). At present, demand for these products only accounts for a small share of the market. Also, organic rice is becoming increasingly popular; the share of organic rice is expected to increase at least in the short to medium-term. Of the EU countries, Italy is the largest market for organic rice.

Pulses

In 2004, the global industrial demand for pulses reached the record of 59.9 million tonnes (FAO, 2006). According to the 2005 trends and outlook report of the FAO on the global pulse market, per capita food consumption of pulses in the industrialised countries increased, whilst per capita consumption in the developing countries decreased over the past 25 years. A plausible explanation for this is the increased consumer awareness about the health benefits of dry legumes. High levels of animal protein in the diets of industrialized countries stimulated consumers to look for alternative sources, and with good levels of protein and fibre, along with low fat content, pulses represent a good alternative. Although it is often the soybean that is used as a protein provider in the preparation of other food products, kidney beans and chickpeas can also serve as meat replacement. Consequently, pulses are increasingly considered as health foods. Another factor that may have contributed to the increased demand of pulses in the West could be international migration, including the increase of ethnic consumers, which has accelerated the last 25 years.

Approximately more than half of total EU pulse demand (mainly by the feed industry) consists of dry peas; nevertheless, dry peas are not included in this survey as global trade of this bulk commodity is strongly dominated by Canada and therefore not interesting for developing country producers (FAO, 2006). Please note that data on beans must be interpreted with care, as the picture is somewhat unclear: the different bean species are known by different names in different countries according to their use. For instance, faba beans (also called broad beans) are sometimes called simply 'beans' by native English speakers, and there are some unclear boundaries between the dry and fresh bean markets.

Table 4.2 Human consumption of pulses in selected EU countries, in 1,000 tonnes

	2000 Pulses	2002 Pulses	2004 Pulses	Annual average change in pulse consumption '00-'04
Italy	232	244	252	2.1%
Spain	230	234	227	-0.3%
France	93	89	83	-2.8%
Greece	51	58	51	0.0%
Portugal	37	37	35	-1.4%
Poland	35	30	31	-3.0%
Germany	39	19	21	-14.3%
United Kingdom	72	46	20	-27.4%
The Netherlands	10	15	14	8.8%
Slovakia	14	14	13	-1.8%
Hungary	10	12	13	6.8%
Czech Republic	9	9	8	-2.9%
Belgium	10	11	7	-8.5%
Ireland	5	5	6	4.7%
Cyprus	3	4	4	7.5%
Austria	5	3	3	-12.0%
Sweden	3	4	3	0.0%
Slovenia	2	2	2	0.0%
Malta	2	2	2	0.0%
Denmark	2	2	2	0.0%
Estonia	0.1	0.2	0.6	0.0%.
Finland	0.2	0.2	0.2	0.0%.
Latvia	0	0	0	n.a.
Lithuania	0	0	0	n.a.
Total EU*	864	840	797	-2.0%

* Peas excluded

* Luxembourg not included

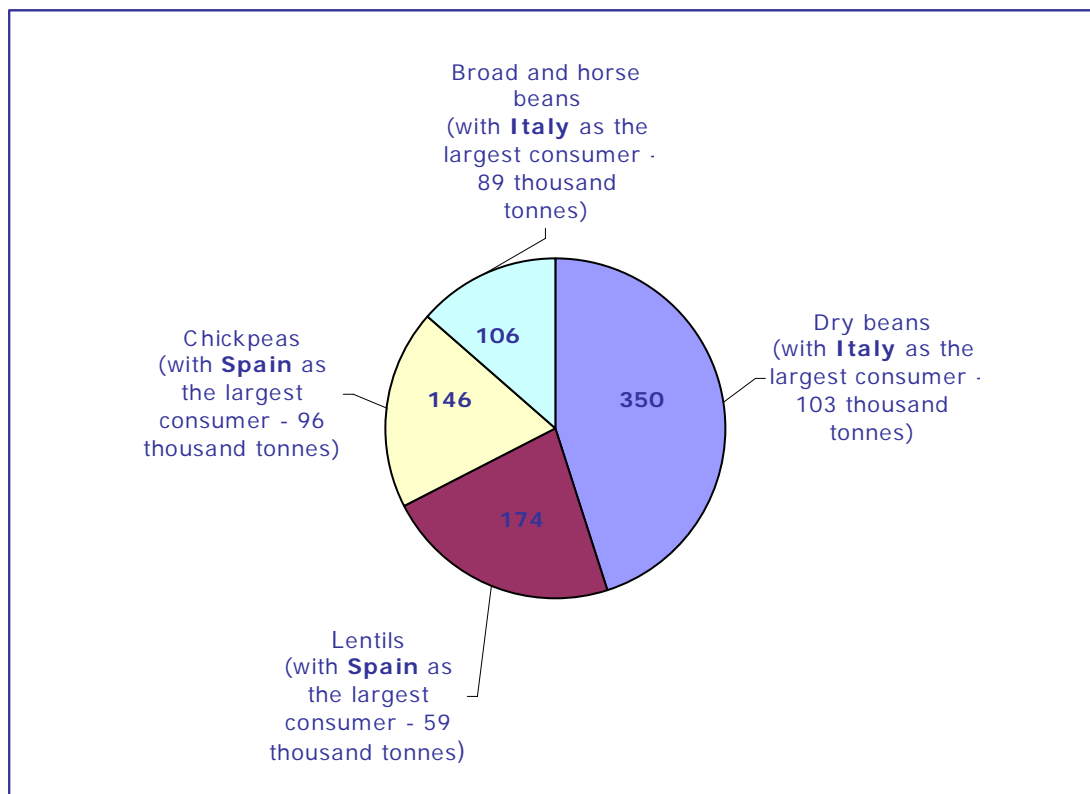
Source: FAOstat (2006)

As can be seen in Table 4.2, the main consumers of pulses in the EU are Italy and Spain, together accounting for more than half of the demand in the EU. Table 4.2 shows some strong fluctuations in pulse demand, with the strongest relative growth in Estonia (+57% annually) and the strongest absolute growth in Italy and The Netherlands. On the other hand, considerable decreases in consumption were experienced in France, Germany and the UK.

The four main pulse species suitable for human consumption, as classified by FAOstat, are dry beans (071331, 071332, 071333, 071339), chickpeas, lentils and horse and broad beans, although the latter is in Europe mainly used as feed for cattle. Figure 4.1 gives a picture on the four main pulses destined for human consumption in the EU.

Between 2001 and 2004, industrial demand for dry beans increased the most in Italy (+15%) and relatively the most in Estonia (+900%). Demand for lentils among the established lentil consumers (Spain, Italy, France., Greece) decreased between 2001 and 2004. Demand increased the most in the UK (+35%) amounting to 17 thousand tonnes. Most of this can be contributed to the popularity of the Indian cuisine. Demand increased relatively the most in Portugal (+176%), amounting to 670 tonnes.

Figure 4.1 Human consumption in the EU of the four main pulses, 2004 (including main EU market).



Source: FAOstat (2006)

4.2 Market segmentation

Rice

European rice consumption is divided between human consumption (85%), animal feed (7%), industry and seeds (3% each) and loss (5%). Human consumption has increased, whilst other uses are stable or decreasing (FAO, Rice Conference, 2004).

The most widely consumed rice in the retail market is milled, Indica, long-grain rice. However, the consumption of aromatic rice varieties, especially in Europe, has made large in-roads, mainly at the expense of trade in Japonica rice (FAO, rice market monitor 2006). Rice can also be divided into segments related to cooking specifications, namely untreated normal cooking rice and the treated fast-cooking instant rice (parboiled rice). The sales volumes of instant rice increased enormously over the last twenty years, in contrast to the sales of normal-cooking-time rice.

Many side-products can be derived from rice, under which:

- **Rice Bran:** produced from the outer layer of the brown rice grain. Used in cereals, mixes and vitamin concentrates due to its high levels of vitamin B6, iron and magnesium; also rich in fibre.
- **Rice Bran Oil:** extracted from the outer layer on the brown rice kernel (= rice bran). Studies have shown that it is effective in lowering blood cholesterol levels.
- **Rice Flour:** produced from either white or brown rice ground. It is free from gluten and therefore non-allergenic. Used to produce rice pasta, crisps, cereals and snacks.
- **Rice Hulls:** the inedible outer husk layer has many uses, from fuel in power plants to mulch and abrasives (and is also used for animal feed).

- Rice Starch: produced from the endosperm of the grain, used as a thickener in sauces and desserts.
- Rice Syrup: a natural sweetener, less intense than traditional sugar syrups and honey.
- Broken Rice: pieces of rice kernels that are used in the manufacture of various products, including rice flour and pet foods.
- Brewers Rice: an ingredient used in brewing, especially prized by some Beer manufacturers where it is the premium ingredient.

The most widely used rice by the processing industry is rice bran and broken rice. However, market possibilities for extra-EU suppliers are small due to the high import tariffs: € 65/ton for broken rice and € 138/ton for rice bran, amounting to approximately 3 to 4 times the value of the products. On the other hand, EU rice producers do not produce enough broken rice to meet total demand. Therefore imports of broken rice will continue to exist, mainly under TRQs (Tariff Rated Quotas—duty free or at a lower duty rate).

Pulses

The market for pulses can be divided into two segments: human consumption (processed or unprocessed) and animal feed and sowing. Globally, the largest share is for human consumption (2/3) versus a much smaller share for animal feed and a negligible share for sowing. Developing countries account for the bulk of total pulse utilization (approximately 75%). The Middle East and North Africa are especially important regions for the pulse market.

A completely different picture exists in the European market, where the main share of pulses is used for animal feed (approximately 2/3). Pulses for human consumption are mainly used for consumer packing for the retail trade, but also for bread spreads and convenience foods. The various beans are often sold in cans and used in the 'multicultural' cuisine: chilli and 'TexMex' meals and lentils in Indian curries.

A very strong North-South division can be distinguished in Europe regarding the consumption of pulses, even more so than with rice. About 80% of pulse consumption is accounted for by the five Mediterranean countries: Italy, Spain, France, Greece and Portugal. Pulses traditionally form a part of the Mediterranean daily diet. While consumption habits are also slowly changing in these countries, pulses maintain their place in the daily diet, because South Europeans are in general less susceptible in adopting Western food trends and prefer their local dishes.

Another interesting difference between North European and South European food habits is that more time is spent shopping for and preparing food in the south. In contrast, North Europeans (especially Britons) increasingly favour convenience products. Therefore, pulses are increasingly sold in canned or frozen form in Northwest Europe, while dried pulses are still popular in the Mediterranean countries (http://www.sippo.ch/files/publications/agri_fruit.pdf).

Consumer profiles rice and pulses

As would be expected, the largest consumers of rice and pulses products in Europe are ethnic consumers, based upon traditional cultural consumption patterns. Ethnic food products such as Hispanic, East Indian and Middle Eastern possess the highest percentage rice and pulses content as compared to other ethnic or mainstream food categories. Due to a growth of immigrants in EU countries, but also to a growing interest in non European dishes, there has been a noticeable increase in demand for ethnic foods over the past ten years. The most common pulses used in both Middle Eastern and East Indian foods are chickpeas and lentils. The types of pulses used in the Hispanic market are predominantly pinto and black beans, though a variety of other pulses is also used. The Asian cuisine is widely known for the use of rice of which especially Basmati rice showed an increasing popularity.

Aside from ethnic consumers, non-ethnic rice and pulses consumers include: Generation X, seniors, vegetarians, organic consumers and consumers generally interested in ethnic dishes. There is also a great deal of crossover between these various segments, for example, non-ethnic and vegetarian consumers. According to a detailed market analysis study on consumer-

ready pulse products (2001) conducted by Canglobal Management Inc, the greatest pulse consumption growth has been seen within the Generation X market (26-35 years). Generation X consumers are generally well educated, relatively affluent and are innovators. They consume pulses for several reasons including:

- **Health:** pulses are regarded as having perceived health benefits. This group eats less meat than their parents and, therefore, a meat substitute is required.
- **Vegetarianism:** Some of this group is vegetarian for health and/or socio-political reasons. Pulses are a protein alternative.
- **Adventure:** This group has grown up in an ethnically diverse society and likes to try new foods. They are innovative and creative when it comes to cooking.
- **Differing perceptions:** this group does not hold the common negative perceptions of pulses. Rather, pulses are an alternative food which they have "discovered" themselves.

4.3 Pattern and trends in consumption

Some general consumption patterns and trends can be distinguished for rice and pulses:

- An increasing demand for convenience products such as individual packaging, pre-cooked products, products suitable for the microwave etc.
- The health trend, including a healthier food pattern.
- Organic can be seen as part of this health trend, although it also represents the demand for specialty, niche and/or more luxury food products.

Below, specific consumption patterns and trends for rice and for pulses are discussed for the EU in general. For country specific information, refer to the country surveys.

Rice

The following trends in the consumption of rice in Europe can be distinguished:

- Almost all rice on the EU consumer market is milled rice; however the husked brown rice segment is growing strongly, due to the growing health-food trend.
- A popular product in the instant segment is pre-cooked rice, packed in packages containing several "one person cooking bags", due to individualism and small households. Thanks to this bag (125 gram) the rice does not stick in the pan during cooking.
- A product champion of the last couple of years is microwaveable wet rice first introduced by Uncle Ben's in the UK. Since its introduction in 2000, variants have been introduced as Pilau and Basmati, resulting in sales increases of 50% between 2002 and 2004, therefore increasing competition in the dried rice market (Mintel, Rice Market Intelligence, 2005).
- Increasing consumption of organic rice; however the market segment is still negligible at around 1.5% European average.
- Consumers are looking for higher quality (GMO-free), but also more expensive and exotic kinds of rice like Basmati and Jasmine (Euromonitor, 2006).
- Private label sales are increasingly growing and are estimated at capturing an 80% market share. Sales of private labels are among the highest in Germany, somewhat lower in the Benelux (Belgium, The Netherlands and Luxembourg) countries and lower in the Southern European countries.
- Brands will face struggles to increase market share, because what persuades consumers to buy rice is (as researched) its natural commodity status, rather than its brand status.
- Ethnic consumers, an important consumer group in the rice market, are increasingly changing their purchasing habits in favour of the grocery multiples. The availability of bigger pack sizes, cheaper private label offerings, as well as a greater range of ingredients intrinsic to ethnic cooking available on the shelves, is eroding some of the traditional loyalty that members of the ethnic community show towards specialist retailers, not to mention specialist brands. According to a rice study conducted by Mintel in 2005, this trend is highly likely to continue in the foreseeable future.
- Manufacturers have increased their range of speciality rice and retailers stock more exotic special rice varieties under private label.

Pulses

The following trends in the consumption of pulses in Europe can be distinguished:

- Pulse consumption varies greatly among the different EU countries due to different regional food habits and traditions, and due to differences in production and supplies of pulses. The UK is for instance a large consumer of beans, due to the popularity of baked beans with tomato sauce for breakfast. Spain's consumption of pulses can partly be traced back to its historical ties with Mexico. Many traditional Spanish dishes include pulses from lentils to all sorts of small or flat or large beans, chickpeas, and rice. Lentils are often offered as a first dish of the menu of the day.
- Pulses are primarily appreciated by consumers and industrialists for their low price and their ease of storage over a long period of time.
- Pulses are increasingly sold in canned or frozen form and less in dried form. Dried pulses are still popular amongst ethnic consumers.
- The EU has a growing population of people who came from, or whose ancestors came from the Middle East, northern Africa and the Indian sub-continent, where pulses are a staple. In addition, middle-eastern, North African and Indian sub-continent cuisine is being adopted by the general population in Europe.
- Flour made from pulses is increasingly being used in baking to increase the protein, fibre, mineral and vitamin content.
- Demand for pulses in the human food market is expected to rise modestly due to the increased acceptance of pulses as a healthy food and changing eating trends.

Opportunities and threats

The population growth for the EU until the year 2011 is forecasted by the European Commission to be only 0.2% per year. Therefore, any significant increase in domestic demand would have to come from increased consumption. Rice consumption in Europe did increase considerably during the 1980s and beginning of 1990s as Northern Europeans started to introduce rice into their diets, however, since a couple of years, European rice consumption stabilised (see Table 4.1). Consumption of pulses showed a decrease over recent years, but offers some opportunities as explained later below.

On the other hand, with the enlargement of the EU the EU market for rice and pulses grew significantly. The East European countries and Baltic States used to import rice from countries like Thailand, Pakistan and India, but have now shifted to purchase rice from Italy or from North European rice mills. With Romania and Bulgaria as new member states as per 1 January 2007, one may expect an increase of medium grain rice as these countries are historical consumers of this variety. In general, with the growing economy in all new member states, consumers will want to try new varieties and more expensive rice such as fragrant rice. East Europeans are also relatively large consumers of pulses and their local dishes are known for the regular use of pulses.

Next to new EU member state markets, the EU rice and pulses market can receive a boost from the health trends mentioned. Rice and pulses are an example of a good alternative for persons following a gluten-free diet.

Market opportunities for gluten-free products

It is estimated by market analyst Mintel that the Coeliac disease, caused by intolerance to gluten, i.e. the protein found in wheat, rye and barley, is said to affect an average of one in 300 people in Europe. In Germany the figure is higher at one in 200, while the UK reports a figure of one in 100. Since food intolerance and food allergies appear to be a growing problem across Europe, the gluten-free market and thus all rice and pulses surely offers a market opportunity for developing country producers. Dr. Schär, one of Europe's leading firms in the gluten-free food sector (<http://www.schaer.com>), stressed that the "free-from" food market has been enjoying sales growth of over 300 per cent in the UK since 2000.

The wholesale and retail structures of the industry are well developed. A variety of vendors such as health food stores, specialty stores, mail order, phone order, and web-based ordering companies exist to meet consumer demand. The scope of new products currently being developed for the gluten-free market is unknown but large multinationals are not active, or expected to participate in, this product segment in the near future. A major challenge that consumers of gluten-free foods encounter is product availability, even in urban areas. Many gluten-free consumers must shop in a number of stores because the products carried by each store vary significantly, and products are often temporarily unavailable. This is either because the store is unresponsive to the market needs or there are supply problems from the distributor or manufacturer end. Due to the fact that the market for gluten-free foods is not large and is spread out over a large geographical area, Internet retailing is a common way of displaying and selling products. There are many Internet retailers which have established "virtual stores" to sell a variety of gluten-free foods.

A consumer survey conducted by Mintel indicates that the majority of celiacs has never tried gluten-free pulse pasta products. Although many respondents were not aware of pulse pasta before the survey, many are anxious to try it now. Rice is by far the most commonly used gluten-free substitute for making pasta. A challenge faced by consumers of gluten-free products is the unavailability of many pre-made and ready-prepared foods. In terms of bread, rolls, cakes and pastries, there is little on the market. In terms of frozen entrees, side dish mixes and soups and stews, there is also little selection. According to a detailed market analysis study on consumer-ready pulse products (2001) conducted by Canglobal management inc., various respondents stated that there are many foods or food products missing from the market or that they would like to see more of. This present potential opportunities for new entrants into the gluten-free market.

Moreover, due to GMO problems with USA rice, other countries of origin will now have better chances to offer their rice, especially for the Long Grain Parboiled Rice variety, which was mainly dominated by USA origin. It will be important for the other rice supplying countries to remain GMO-free. Moreover, it becomes increasingly important to meet EU Food Law regulations (such as HACCP) and to show rather expensive DNA analyses for rice such as Basmati. Moreover, since the supply of genetically modified soybeans is increasing, but demand for GMO-free soybeans and meat replacements is decreasing, organic pulses offer interesting market opportunities for developing countries.

Rice

Most opportunities for rice exist in the supply of aromatic rice varieties, because of the following reasons:

- Consumption of Basmati rice and Jasmine rice has been increasing in Europe during the last couple of years. This could offer opportunities for developing country suppliers, as these rice varieties are not produced in the EU, therefore developing country suppliers do not face direct competition from Italy, Spain and Southern France.
- Especially trade in aromatic rice varieties is deepening, as can be seen in Table 6.4.

- Aromatic rice is particularly consumed by ethnic consumers who form, due to immigration, a large minority in many European countries. Furthermore, western consumers increasingly show interest in special rice varieties.

Pulses

Human consumption of pulses in the EU is lower than in other regions of the world. According to a study by the European Association for Grain Legume Research (AEP) conducted in 2002, the following factors restrict the consumption of pulses in the EU:

- The long cooking time;
- The problem of flatulence;
- The 'old-fashioned' image;
- Clear lack of innovative products adapted to modern life.

Variety breeding and processing provide some opportunities to reduce a-galactosides (the major factors involved in flatulence) but, according to AEP, the results of research have not provided sufficient satisfactory data yet. However, the main bottlenecks for pulse consumption in the EU are related to markets, economics and politics: production in the North European countries is destined for animal feed and not focused on human consumption. Moreover, there is little public or private R&D investment and a general lack of marketing and publicity efforts.

A great difference exists between industry sources and branch associations and their perception of the EU market for pulses. Leading European importers are rather pessimistic about market opportunities for new suppliers, as pulses are in the maturity/decline stage of their product life cycle. Due to their old fashioned image and lack of innovation, consumption of pulses is on the retreat. Furthermore, the EU market for pulses is highly concentrated, leaving little manoeuvring space for new suppliers (see Chapter 8). Whilst industry sources would describe health trends and its effects on pulse consumption as "wishful thinking", branch organisations envisage the opportunities for increase in pulse consumption due to changing food habits. A study by AEP indicated that the key words associated with pulses are 'health', 'gastronomy', 'local production' and 'authenticity', which meets several of the current trends and demands of EU consumers and EU society in general. These trends include:

- Increased concerns about personal health, food quality and food safety;
- Increased interest in vegetarianism and more 'rustic' foods which do not contain genetically modified plants;
- Worries about animal protein sources (following the BSE epidemic);
- Interest in exotic dishes;
- Concerns for safer (traceable) environmentally friendly crop and food production;
- Increasing ethnic market (foreign immigrants in the EU).

Not only pulse consumption has significant nutritional and health advantages for consumers, but pulse cultivation also has a positive impact on agriculture and the environment. Furthermore, alternatives to soy beans are becoming increasingly interesting because of global genetically modification issues (GMO). Nowadays, it is almost impossible to purchase soy beans which are guaranteed GMO free. Therefore, pulse consumption could increase, but only if publicity about the benefits of pulses is improved and only if the food industry and professional organizations incorporate pulses in novel, convenient and healthy food products.

Next to the fact the pulses have a greater nutritional content and are a food group with ethnic flair, some other more general trends on the EU food market could increase the opportunities for developing country suppliers of pulses. If suppliers are able to adapt the pulses product to preferences in the field of single-serving sizes and easy-to-use packaging and easy-to-read labels, the EU market could offer more opportunities for suppliers.

4.4 Useful sources

- Food and Agriculture Organization, commodities and trade:
<http://www.fao.org/es/esc/en/20953/21023/index.html>

- FAOstat, go to consumption; core consumption data; food quantity: <http://faostat.fao.org/site/346/default.aspx>
- International Rice Research Institute: <http://www.irri.org>
- Rice online for global rice news headlines: <http://www.riceonline.com/home.shtml>
- The Rice Association of which the objective is to promote the interests of members in all matters pertaining to the import, preparation, processing, packaging and marketing of rice: <http://www.riceassociation.org.uk>
- European Association for Grain Legume Research: <http://www.grainlegumes.com>
- Agri-Food Trade Service Canada, contains several market studies (free of charge) on the pulse market in several EU countries: <http://ats-sea.agr.ca/news/world-e.htm>
- International Food Ingredients is an international magazine for the food ingredients industry: <http://www.ifi-online.com/>

5 PRODUCTION

5.1 Size of production

This chapter discusses EU production of rice and pulses. Just as in the previous chapter, the size of production, forecast and trends are treated separately for rice and pulses.

Rice

On global level, FAO's forecast on paddy production stands at 632 million tonnes in 2006, marginally above the 2005 level. At least 114 countries grow rice, but Asian farmers produce about 90% of the total, with two countries. China and India, growing more than half of total crop output (International Rice Research Institute). Brazil is the most important non-Asian producer, followed by the United States.

Compared to other global players, the EU is a rather small producer of rice. Therefore, the EU is a strong net consumer of rice; in 2003 EU demand for rice outreached EU production of rice by 1,236 thousand tonnes. Italy ranks first in Europe. A few countries in the EU cultivate paddy, medium grain rice as can be seen in Table 5.1. Only the Mediterranean countries plus Hungary produce paddy rice, of which Italy is clearly the leading producer.

Table 5.1 Production of paddy rice by selected EU countries, 2001-2005 in 1,000 tonnes

	2001 Rice	2003 Rice	2005 Rice	Annual average change in rice production '01-'05
Italy	1,273	1,402	1,413	2.6%
Spain	876	855	846	-0.9%
Greece	150	163	167	2.7%
Portugal	146	148	120	-4.8%
France	103	107	102	-0.2%
Hungary	8	11	11	8.3%
Total EU	2,556	2,686	2,659	1.0%

Source: FAOstat (2006)

Throughout history, EU demand for rice has always outreached EU production of rice. In 2005, Europe ranked 17th as world rice producer. Historically, rice produced in the European Community was Japonica (medium grain), mainly consumed in the producing Member States. From 1988 to 1993, the Community encouraged the producers to convert from surplus Japonica to Indica varieties by means of direct payments. Along with increased productivity, this has resulted in about 55% of EU Indica consumption being covered by domestic production (Federation of European Rice Millers: <http://www.ferm-eu.org>). Nowadays, the two main types of rice produced and consumed in Europe are Japonica rice and Indica rice.

Pulses

The volume of European pulse production increased annually by 6% annually between 2001 and 2005, amounting to 1,997 thousand tonnes in 2005 as can be seen in Table 5.2. Note that production data in Table 5.2 include pulses for human *as well as* animal feed. Recall from Table 4.2 that human consumption of pulse decreased annually by 2% in the period reviewed, whilst production of pulses increased in the same period. This could be due to the increasing demand for pulses by the animal feed industry.

Table 5.2 Total EU pulse production 2001-2005. in 1,000 tonnes

	2001 Pulses	2003 Pulses	2005 pulses	Annual average change in pulse production '01- '05
United Kingdom	596	646	660	2.6%
France	217	329	431	18.7%
Spain	258	373	307	4.4%
Poland	171	211	244	9.3%
Italy	108	93	126	3.9%
Germany	81	61	60	-7.2%
Greece	40	38	38	-1.3%
Lithuania	22	27	33	10.7%
Slovakia	22	23	23	1.1%
Portugal	22	21	19	-3.6%
Ireland	8	9	10	5.7%
Denmark	2	20	10	49.5%
Czech Republic	9	8	10	2.7%
Netherlands	9	13	9	0.0%
Austria	7	9	8	3.4%
Hungary	6	4	3	-15.9%
Malta	2	2	2	0.0%
Latvia	1	2	2	18.9%
Cyprus	0.9	0.9	0.9	0.0%
Sweden	0.5	0.9	0.9	0.0%
Slovenia	0.5	0.2	0.5	0.0%
Belgium	0.2	0.5	0.5	0.0%
Luxembourg	0.5	0.3	0.4	0.0%
Estonia	1	0.3	0.1	0.0%
Finland	0.0	0.0	0.0	n.a.
Total EU	1,587	1,891	1,997	5.9%

Source: FAOstat (2006)

The largest producers of dry beans in the EU are Poland (31 thousand tonnes) and Greece (19 thousand tonnes). The leading producer of broad and horse beans is France (381 thousand tonnes) followed at a distance by the UK (160 thousand tonnes). Chickpeas and lentils are the least cultivated pulses species. Cow peas, adjoined with dry beans in FAO statistics, are produced only in Cyprus (120 tonnes annually).

Organic production

As stressed by FIBL (Research Institute for Organic Farming in Germany) no official statistics or estimations exist regarding the European organic market. Consequently, no specific data exist on the organic production of rice and pulses in the different EU countries. However, Italy is the largest producer of organic food in Europe. Italy devotes approximately 1 million hectares to organic cultivation. Most organic production is concentrated in southern Italy, particularly Sicily and Sardinia, which together account for over 50% of the country's total organic production. At the end of 2003, of the organically managed land, 20% consisted of grains, pulses and cereals (http://www.organic-europe.net/country_reports/italy). Most Italian domestic producers are small businesses that sell directly to consumers from stalls in local markets. There are only a few large-scale operations in existence.

After Italy, Germany, Spain, the United Kingdom and France are the largest organic EU producers in terms of total organic area. In Germany, most promotion by the government takes place in encouraging organic conversion.

5.2 Trends in production

Rice

The opening of ten new European markets in 2004 brought about fierce competition in these new markets, as rice factories sought to replace Vietnam and Thailand as the chief suppliers to Eastern Europe. This competition also extended to 'old' European states, where significant price cuts were widely made as operators jostled for position in the 'new' EU market. An example is the Italian Riso Scotti that is heavily investing in the Romanian rice sector (cultivation as well as milling/processing). From January 2007 on, Romania (and also Bulgaria) became members of the European Union.

The Federation of European Rice Millers noticed the following four most clearly demarcated developments since the years 2005-2006 with significant effects for the operation of the European milling industry:

- A significant increase in the world market prices for brown rice used by European millers, namely US and Thai rice. The rising prices in Thailand and the US reflect a more global phenomenon of insufficient rice supply.
- A rise in the import duty of brown rice (see Section 10.4).
- Continuing rise in costs associated with technical regulatory demands.
Changing European regulatory demands – evolving hygiene, traceability, contamination and pesticide legislation – continue to escalate the costs of milling. The most notable innovation in 2006 was EU demands for DNA sampling of Basmati rice. This has placed an additional cost (estimated at an average of € 200/batch analysis) on importers. With new EU reviews of contaminants and pesticides anticipated over the coming 12 months, such technical costs are anticipated to rise in the near future. As a result, developing country producers should be aware of the importance of quality control and other regulations like HACCP certification. Mixing of seeds and rice should also be treated with care in an early stage. The challenges are to tackle GMO, have DNA testing in place, prevent mixing with cheaper rice varieties and those containing heavy metals. Obviously this will mean an increase in costs.
- Growing freight and energy costs.
Rising gas, oil and diesel fuel costs in 2006 have led to a significant increase in freight costs both within the EU (transport via trucks and containers) and for raw materials shipped from overseas.

Pulses

Broad and horse beans is the most widely cultivated pulse in Europe, followed at distance by dry beans, together accounting for half of total pulse production in the EU. The picture for the global pulse production looks somewhat different, as broad and horse beans only account for 7% of total global production of pulses. The difference in pulse composition can be traced back to the difference in pulse utilization. As earlier mentioned, the majority of pulse consumption in the EU is for animal feed, for which especially the horse bean is suitable. Whilst on the contrary, in lesser developing countries, pulses form an important part of the human daily diet.

Since Northern Europe almost exclusively produces pulses for animal feed and only imports pulses for human consumption, the largest pulses importers are in France and The Netherlands, as they have a large cattle-fodder industry.

Opportunities and threats

- Rice and pulse varieties not produced in the EU, but showing an increase in demand –for example fragrant rice-, offer the best opportunities for developing country exporters.
- As a result of the increasing freight and energy costs, importing raw materials from overseas to the EU showed an increase the past years and can be a threat to developing country exporters.

5.3 Useful sources

- European Association for Grain Legume Research: <http://www.grainlegumes.com>
- The Federation of European Rice Millers (FERM) made up of 21 company members from around Europe as well as 5 national rice milling associations of Italy, Spain, Portugal, France and Germany, representing over 90% of the milling capacity in Europe: <http://www.ferm-eu.org/>
- The Grain and Feed Trade Association (GAFTA) is an association of international grain and feed trading companies with about 1000 members in 90 countries: <http://www.gafta.com>
- International Pulse Trade and Industry Confederation: <http://www.cicilsiptic.org/>

6 IMPORTS

Please note that the trade data used in this chapter and chapter 7 include paddy rice *as well as* milled rice. Whilst paddy rice is mostly the point of reference in international data on production and consumption, milled rice is the point of reference in the import/export data as the milled equivalent accounts for approximately half of total EU trade.

6.1 Total EU imports

Rice

Most rice is consumed in the same country in which it is produced and the percentage of rice produced, which is internationally traded, is very little. The international rice trade is estimated at 28.7 million ton in 2006, which corresponds to only a mere 5% of world production. This makes the international rice market one of the 'thinnest' in the world compared to other grain markets such as wheat (113 million tons) and corn (80 million tons) (UNCTAD, market information in the commodities area). A commodity market is considered thin when trade represents only a small proportion of global production. Thin markets are often subject to large swings in traded volumes, since relatively small changes in production in an important producing country may result in large increases in exports or imports, should that country resort to the international market to dispose of a sudden increase in domestic supplies or to cover a shortfall. Trade in thin markets is often considered a residual option, often secondary to the alternative of building-up or drawing from domestic reserves.

However since the early 1990s, trade in rice has not only risen in volume terms but also in relation to production, resulting in a "deepening" of the rice international market. An interesting occurrence is that the tendency for rice trade to deepen over time contrasts with the patterns in the wheat and maize international markets, which, instead, have "thinned" since the early 1980s. Unfortunately, the strong tendency for international trade to grow in the 1990s was associated with much greater volatility in volumes.

However, EU imports of rice decreased by 2% annually between 2001 and 2005, amounting to € 1,082 million in 2005. Imports by the Northwest European countries - the largest importers of rice - decreased between 2001 and 2005, around 3% annually. The largest absolute decrease in imports was by The Netherlands (-10% annually). The largest increase was by the Czech Republic (+8% annually). This increase in imports can be explained by the fact that since the import duty on cargo rice is still lower (€ 65/mt) than on white rice (€ 145/mt), a rice mill has been established in the Czech Republic. In this way the processor can benefit from the duty advantage.

The value of one kilogram rice shows a downward trend, as can be derived from Table 6.1. In 2001, the import prices were € 0.48 per kg, in 2003 € 0.46 per kg and in 2005 this decreased to € 0.42 kg.

Table 6.1 Imports of rice by EU member countries, 2001-2005
€ million / 1,000 tonnes

	2001		2003		2005		Annual % change in value
	value	volume	value	volume	value	volume	
Total EU	1,177	2,328	1,120	2,421	1,082	2,596	-2.1%
Intra-EU	717	1,235	697	1,230	692	1,537	-0.9%
Extra-EU	459	1,093	423	1,191	390	1,059	-4.0%
Dev. countries	330	725	326	813	307	765	-1.8%
United Kingdom	272	475	248	549	239	534	-3.2%
France	244	440	243	456	220	466	-2.6%
Germany	158	289	155	296	141	298	-2.8%
Belgium	107	248	106	262	99	263	-1.9%
Netherlands	102	249	86	222	66	200	-10.3%
Italy	39	86	38	86	43	102	2.5%
Portugal	44	127	34	102	40	148	-2.4%
Poland	0	0	0	0	34	99	n.a.
Sweden	33	44	36	52	33	57	0.0%
Denmark	22	31	23	33	23	141	1.1%
Austria	24	33	21	28	22	30	-2.2%
Spain	33	86	30	100	20	57	-11.8%
Czech Republic	14	48	17	60	20	47	9.3%
Finland	17	26	18	27	14	25	-4.7%
Ireland	13	15	12	14	13	11	0.0%
Hungary	15	48	12	40	13	37	-3.5%
Slovakia	8	30	10	36	11	25	8.3%
Greece	11	13	13	16	11	16	0.0%
Lithuania	4	14	3	11	4	12	0.0%
Slovenia	4	9	4	9	4	8	0.0%
Cyprus	3	5	4	7	3	5	0.0%
Luxembourg	2	1	2	1	2	1	0.0%
Latvia	2	6	2	6	2	5	0.0%
Malta	2	2	1	2	2	2	0.0%
Estonia	1	4	1	4	1	3	0.0%

Source: Eurostat (2006)

Pulses

Global trade in pulses grew rapidly between 1980 and 2003 (approximately 5% per year) much faster than the production output. As a result, the proportion of pulse production that is traded increased significantly, from 7% in the early 1980s to 16% in 2001-2003. Nevertheless, the pulse trade remains a relatively thin market, especially when compared to other food commodities (FAO Global Pulse Markets, situation and outlook, 2005).

Despite growth in global imports, EU imports of pulses decreased by 4% annually between 2001 and 2005, amounting to € 519 million in 2005. Spain, Italy and the UK are the leading importers of pulses, accounting for more than half of total EU pulses imports in 2005. However, imports by Spain and Italy decreased considerably by 18% and 23% respectively. Imports by Hungary increased relatively the most, from € 5 million in 2001 to € 7 million in 2005, signifying an increase of 40%

The value of one kilogram of pulses fluctuated around € 0.50 per kg during the four year period. In 2001, the import prices were € 0.54 per kg, in 2003 this decreased to € 0.45 per kg and in 2005 this increased to € 0.51 kg again.

Table 6.2 Imports of pulses by EU member countries, 2001-2005
€ million / 1,000 tonnes

	2001		2003		2005		Average % change in value
	value	volume	value	volume	value	volume	
Total EU	609	1,125	516	1,141	519	1,018	-3.9%
Intra-EU	109	308	112	355	108	279	-0.2%
Extra-EU	501	817	404	787	411	738	-4.8%
Dev.countries	253	369	207	389	239	394	-1.4%
Spain	138	248	101	229	113	226	-4.9%
Italy	132	321	123	356	102	257	-6.2%
United Kingdom	91	151	74	159	88	162	-0.8%
France	68	103	61	114	54	95	-5.6%
Portugal	33	57	30	60	31	55	-1.6%
The Netherlands	39	68	30	57	29	51	-7.1%
Greece	25	36	23	36	23	36	-2.1%
Germany	31	53	25	45	23	38	-7.2%
Belgium	20	37	19	36	22	43	2.4%
Hungary	5	8	6	10	7	11	8.8%
Czech Republic	6	12	5	10	5	11	-4.5%
Austria	4	5	3	4	3	3	-6.9%
Poland	0.0	0.0	0.0	0.0	3	4	n.a.
Slovakia	4	9	3	7	3	6	-6.9%
Ireland	3	4	3	4	3	4	0.0%
Sweden	3	3	3	4	2	3	-9.6%
Cyprus	2	3	2	3	2	4	0.0%
Slovenia	3	3	2	3	2	3	-9.6%
Denmark	2	2	2	2	1	3	-15.9%
Lithuania	0.6	1	0.4	0.7	0.4	1	0.0%
Malta	0.4	0.5	0.4	0.8	0.4	2	0.0%
Finland	0.4	0.3	0.4	0.2	0.4	0.2	0.0%
Latvia	0.3	0.5	0.2	0.6	0.3	0.7	0.0%
Luxembourg	0.4	0.2	0.3	0.2	0.3	0.1	0.0%
Estonia	0.0	0.1	0.0	0.0	0.1	0.2	n.a.

Source: Eurostat (2006)

6.2 EU imports per product group

Rice

The leading supplier of rice to the EU is Italy, with a market share of 27%, followed by India (11%) and Thailand (9%). Rice imports from Spain, the fourth largest supplier, decreased the most, from € 125 million in 2001 down to € 85 million, signifying a 32% decrease. Imports from Sweden increased relatively the most, from € 732 thousands in 2001 to € 3.3 million in 2005, an increase of 233%. Most of this increase can be attributed to new rice processors in Sweden, founded in 1997 (<http://www.swedishrice.com>) and Amanat Nawaz Rice established in 2004 (<http://www.zebrice.com>).

Paddy rice is the rice least imported into the EU. It forms the smallest product group of the types of rice distinguished based on their degree of processing. Paddy rice is hardly sourced in extra-EU countries, but mainly in Italy and Spain. Together with the UK and France, these four countries almost completely cover the EU demand for paddy rice. Imports of brown rice decreased by 17% in the four year period reviewed, amounting to € 367 million in 2005. More than half of total imports is sourced in developing countries. The main supplier is India (29%), followed at a distance by the USA (15%). Milled rice is the most imported rice variety in terms of value, EU imports increased by 18% between 2001 and 2005, amounting to € 659 million in 2005. The supply is dominated by Italy (41%), followed at a distance by Belgium (13%). EU

imports of broken rice decreased by 23% between 2001 and 2005, amounting to € 95 million in 2005. The supply of broken rice is not dominated by one or two countries, but is provided by various countries, under which Italy, Spain. The Netherlands and Thailand.

Table 6.3 EU imports and leading suppliers of rice to the EU, 2001 – 2005, share in % of value

Product	2001 € mln	2005 € mln		Leading suppliers in 2005 (share in %)	Share in EU imports (%)
Rice	1,177	1,082	Intra-EU:	Italy (27). Spain (8). Belgium (8). The Netherlands (7). France (5). Germany (3). UK (2)	64
			Extra EU excl	USA (7)	8
			DC*: DC*:	India (11). Thailand (9). Pakistan (4). Guyana (2)	28
Paddy rice	50	40	Intra-EU:	Italy (26). Spain (23). UK (16). France (13). The Netherlands (12). Germany (2)	95
			Extra EU excl	USA (4)	4
			DC*: DC*:	Thailand (0.5). Bangladesh (0.5).	1
Brown rice	443	367	Intra-EU:	Spain (10). Italy (9). Austria (7)	29
			Extra EU excl	USA (15)	15
			DC*: DC*:	India (29). Pakistan (9). Thailand (9)	56
Milled rice	560	659	Intra-EU:	Italy (41). Belgium (13). The Netherlands (8). France (6). Germany (5). Spain (4). UK (3)	84
			Extra EU excl	USA (3)	4
			DC*: DC*:	Thailand (8). Pakistan (1). India (1)	12
Broken rice	124	95	Intra-EU:	Italy (18). Spain (17). The Netherlands (15). Belgium (4). Greece (3)	64
			Extra EU excl		4
			DC*: DC*:	Thailand (18). Egypt (8). Pakistan (4)	32

Source: Eurostat (2006)

*Developing Countries

Pulses

Kidney beans are the pulses most widely imported into the EU, accounting for almost half of total EU imports of pulses. Nevertheless, imports of these beans decreased by 16% between 2001 and 2005, amounting to € 228 million in 2005. The main supplier is Canada (27%), followed by Argentina (17%) and China (16%). Chickpeas are the second most imported pulses into the EU. Imports also decreased, by 10% in the four-year period reviewed, amounting to € 103 million in 2005. The composition of supplying countries for this pulse looks rather different than for kidney beans. The dominant supplier of chickpeas is Mexico (39%), followed by Turkey (24%).

Table 6.4 EU imports and leading suppliers of pulses to the EU, 2001 – 2005, share in % of value

Product	2001 € mln	2005 € mln		Leading Suppliers in 2005 (share in %)	Share in EU imports (%)
Pulses	609	519	Intra-EU:	UK (5). The Netherlands (5). France (2). Germany (2)	21
			Extra EU excl DC*:	Canada (23). USA (9).	33
			DC*:	China (12). Turkey (8). Argentina (8). Mexico (8). India (3).	46
Chickpeas	114	103	Intra-EU:	Portugal (4). Spain (2)	10
			Extra EU excl DC*:	Canada (8). USA (5). Australia (3)	18
			DC*:	Mexico (39). Turkey (24). India (9)	73
Urad and mung beans	23	20	Intra-EU:	The Netherlands (4). Ireland (4). Germany (3)	19
			Extra EU excl DC*:	Canada (7). Australia (5)	13
			DC*:	China (43). India (7). Myanmar (4). Egypt (3). Argentina (3)	68
Adzuki (small red) beans	4.6	3.7	Intra-EU:	Italy (4). The Netherlands (3)	14
			Extra EU excl DC*:	USA (13). Canada (5).	21
			DC*:	China (42). Turkey (4). Madagascar (4). Argentina (4). Mexico (3). Peru (2)	65
Kidney beans	273	228	Intra-EU:	The Netherlands (9). Germany (2). Belgium (2)	19
			Extra EU excl DC*:	Canada (27). USA (10)	37
			DC*:	Argentina (17). China (16). Ethiopia (2). Chile (2)	44
Other Vigna and Phaseolus beans	38	26	Intra-EU:	The Netherlands (5). UK (3). Germany (3). Poland (2)	21
			Extra EU excl DC*:	Canada (16). USA (13)	30
			DC*:	China (22). Argentina (7). Madagascar (5). Peru (4). Turkey (4). India (3).	49
Lentils	91	90	Intra-EU:	Germany (2). The Netherlands (2). Belgium (2)	11
			Extra EU excl DC*:	Canada (46) USA (15)	62
			DC*:	Turkey (15). China (7). India (3)	27
Broad and horse beans	55	36	Intra-EU:	UK (59). France (13). Spain (3). Germany (3)	81
			Extra EU excl DC*:	Australia (2)	2
			DC*:	Syria (5). Egypt (5). Turkey (2). Morocco (2)	17
Other leguminous vegetables	10	12	Intra-EU:	UK (21). Germany (12). France (8). The Netherlands (4)	54
			Extra EU excl DC*:	Canada (1). USA (1)	4
			DC*:	China (16). Malaysia (6). India (6). Sri Lanka (3). Peru (3)	42

Source: Eurostat (2006)

*Developing Countries

6.3 The role of the developing countries in imports of rice and pulses

Rice

Total rice imports from developing countries decreased by 8% between 2001 and 2005, amounting to € 307 million in 2005, signifying a market share of 28%. The market share of developing country suppliers did not increase in any of the different rice varieties in the period reviewed. Developing countries' supply of broken rice decreased the most, by 8% annually between 2001 and 2005, amounting to € 31 million in 2005, though still signifying a considerable market share of 32%.

India's supply of rice decreased slightly by 1% annually between 2001 and 2005, amounting to € 114 million in 2005, signifying a market share of 11%. The market shares of Thailand (9%) and Pakistan (4%) remained stable and the supply of Guyana decreased by 3% annually between 2001 and 2005, amounting to € 25 million, signifying a market share of 2.4%. The rice sector in Guyana is essentially an export-oriented industry in which about 70% of Guyana's total rice production is exported. This makes Guyana unique as most other rice exporting countries (with the exception of Suriname) only export a very small percentage of their production. The new EU import regime implemented in September 2005 harmed ACP countries like Guyana and Suriname more than any other supplying country, since duty on brown rice went from € 265/mt to € 65/mt for third countries like USA (which has a heavily subsidised rice industry) and from € 72/mt to € 18/mt for ACP countries that cannot subsidise rice. In other words, more developed countries gained € 200/mt while ACP countries only gained € 54/mt.

As can be seen in Table 6.5. import value from developing countries is by far the highest for brown rice - the rice most imported into the EU -, followed by milled rice and broken rice. Since the supply of milled rice is dominated by Italy, the most interesting product for developing country exporters regarding value and market share would be brown rice and broken rice strongly depending on the duty difference between brown and milled rice.

Table 6.5 Rice supplied to the EU by developing countries, 2001 – 2005, in € million/ 1,000 tonnes

	2001		2003		2005	
	value	volume	value	volume	value	volume
Total rice	330	725	326	813	307	765
Brown rice	221	416	217	485	206	508
Milled rice	67	151	71	174	70	145
Broken rice	42	157	36	150	31	112
Paddy rice	0.4	0.9	1.3	4.2	0.4	0.8

Source: Eurostat (2006)

Pulses

Total pulse imports from developing countries decreased slightly by 1% annually between 2001 and 2005, amounting to € 239 million, signifying a considerable market share of 46%. Developing countries' supply of 'other leguminous vegetables' increased the most, with 25% annually, amounting to € 5 million in 2005, signifying a market share of 42%. The supply of lentils also increased considerably by 12% annually, amounting to € 24 million in 2005, signifying a market share of 27%. Supply of 'other Vigna and Phaseolus beans' decreased the most, by 9% annually, amounting to € 13 million in 2005.

Table 6.6 Pulses supplied to the EU by developing countries, 2001 – 2005, in € million

	2001		2003		2005	
	value	volume	value	volume	value	volume
Total pulses	253	369	207	389	239	394
Kidney beans	116	185	109	211	101	193
Chickpeas	80	100	49	84	75	89
Lentils	16	27	14	35	24	49
Urad and mung beans	13	15	8.6	16	13	19
Other Vigna and Phaseolus beans	19	27	14	25	13	22
Broad and horse beans	5	9	6	910	6	13
Other leguminous vegetables	2	3	4	5	5	4
Adzuki (small red) beans	2	2	2	4	2	4

Source: Eurostat (2006)

Opportunities and threats

Market opportunities exist at the time of writing for suppliers of non-genetically engineered long grain rice crops, as imports from the US have been banned temporarily due to GE contamination. In September 2006, at least nine countries in Europe have discovered strains of genetically modified rice in shipments of long-grain rice from the United States. Since Europeans consumers are usually more wary of genetically modified products, the findings resulted in the EU applying tighter testing rules on U.S. rice, effectively halting U.S. exports worth around € 73 million a year. Since October 2006, many buyers have switched to importing white rice from Thailand. The USA faces loss of market share if the GE-issues are not resolved soon, offering possibilities for other suppliers of white long grain rice, mostly Thailand.

Another development offering opportunities for mainly Asian rice producers is the vertical integration noticed where 'source suppliers', mainly Basmati millers from Pakistan and India, have decided to open a rice mill in the EU.

Please refer also to related opportunities and threats mentioned in the previous 2 chapters on industrial demand and production.

If we compare imports of pulses sourced in developing countries with consumption and production figures, it seems that the EU mainly imports pulses for human consumption and is self sufficient in pulses used for animal feeding. Therefore, it is recommended that developing country exporters focus on the retail segment of the pulse market.

The leading developing country supplier of pulses to the EU is China. As stressed by industry sources, competition from China is very fierce as they are able to grow and export a wide range of pulses due to the climatologically richness of the country, with good quality at very competitive prices. This, combined with the small margins obtained in the trade of pulses and the ongoing increase in scale production, makes it hard for new developing country exporters aiming to supply the European pulse market.

6.4 Useful sources

- EU Expanding Exports Helpdesk - <http://export-help.cec.eu.int/>
Go to: trade statistics.
- Eurostat – official statistical office of the EU - <http://epp.eurostat.cec.eu.int>
Go to: 'themes' on the left side of the home page - 'external trade' - 'data – full view' 'external trade - detailed data'.

7 EXPORTS

The EU is a strong net importer of rice and pulses. Exports of rice remained stable between 2001 and 2005, amounting to € 744 million. Exports of pulses increased strongly by 8% annually, mostly due to strong growth in exports from the UK and France, amounting to € 201 million in 2005.

**Table 7.1 Exports of rice and pulses by the EU and its principal exporters
2001- 2005, € million / 1,000 tonnes**

	2001		2003		2005		Annual % change in value
RICE	value	volume	value	volume	value	volume	
Total EU	760	1,345	797	1,500	744	1,615	-0.5%
Italy	289	568	294	577	310	744	1.8%
Belgium	113	122	123	154	112	132	-0.2%
Spain	129	296	148	388	94	292	-7.6%
Netherlands	65	104	68	124	65	127	0.0%
France	62	111	48	84	48	107	-6.2%
Germany	43	57	45	63	37	60	-3.7%
UK	37	35	44	48	34	38	-2.1%
Greece	12	30	11	27	24	75	18.9%
PULSES							
Total EU	147	336	215	788	201	648	8.1%
UK	33	147	70	437	64	343	18.0%
France	22	68	48	219	39	168	15.4%
Netherlands	36	35	38	36	33	26	-2.2%
Belgium	11	23	12	24	16	33	9.8%
Spain	13	17	14	21	12	17	-2.0%
Portugal	8	10	10	12	10	13	5.7%
Italy	9	11	10	15	8	10	-2.9%
Germany	7	13	8	15	7	18	0.0%

Source: Eurostat (2006)

Italy is by far the largest exporter of rice, accounting for almost half of EU exports. The bulk of Italy's export comprises milled rice destined for France and Germany. Belgium is (surprisingly) the second largest exporter of rice in the EU, mainly because Boost Nutrition C.V, a leading European rice miller, is located in Belgium (<mailto:info@boost.be>). Furthermore, the importance of the port of Antwerp leads to a lot of re-export.

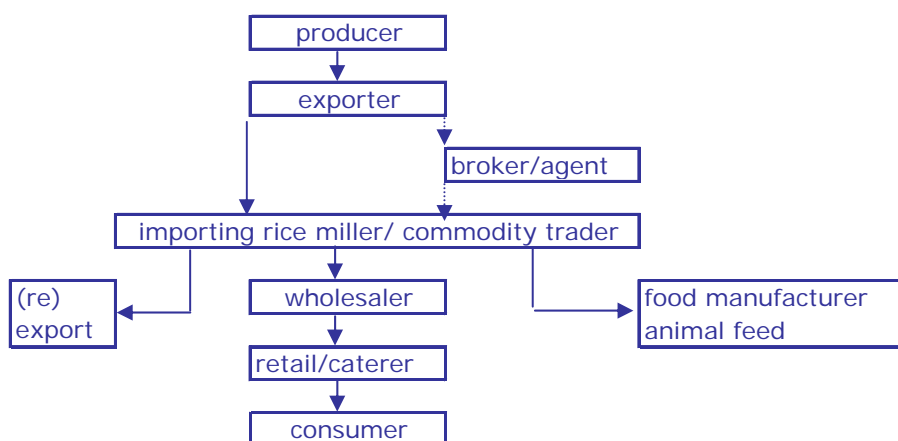
Pulses most exported by the EU in terms of volume and value are kidney beans (€ 72 million) and broad and horse beans (€ 55 million). EU exports of broad and horse beans increased by 15% annually between 2001 and 2005, amounting to € 55 million, turning the EU into a net exporter of broad and horse beans. Also exports of 'other leguminous vegetables' increased considerably, by 26% annually between 2001 and 2005, amounting to € 34 million in 2005. The Netherlands is the leading exporter of kidney beans (€ 26 million), mainly destined for France, Belgium and Germany. France and the UK almost exclusively account for total broad and horse beans exports by the EU. Most of the broad and horse beans exports by these two countries is directed to Egypt.

8 TRADE STRUCTURE

8.1 Distribution channels

The rice and pulses distribution channel theoretically follows the models as displayed in Figures 8.1 and 8.2. Although rice and pulses are both commodity products, some differences exist in the distribution channel of the two product groups, therefore they are treated separately in this chapter. The trade channels mentioned in this chapter which are most commonly used for rice pulses are also the recommended trade channels for DC exporters.

Figure 8.1 The trade channel for rice



Rice

The main players in the EU trade for rice are **commodity traders, rice millers and food manufacturers**. Approximately 70% of rice derived from Extra-EU sources is directly imported by rice millers and the remaining by rice importers, mainly commodity traders. It is important to note that the rice may have already gone through a processing stage in the country of origin before it is exported. The EU hardly imports paddy rice so most rice has already been milled to cargo rice or is fully milled before exporting. However, the packaging into final retail packages is mostly in the hands of European rice millers. The millers, also commonly referred to as rice processors sell the rice to food manufactures who “transform” the rice into frozen products, pre-cooked dishes, special packages, or directly to a retail outlet (supermarket chain and/or wholesalers) before the rice finally gets to the customer and/or end-user.

There is a rice forward market in Chicago, US, but this is mainly used to speculate. Most EU rice millers, which are not (yet) integrated into a larger group and not vertically integrated into producing, make the largest amount of their purchases via a **broker** or after negotiation with millers in countries of origin. Particularly when the exporter is not familiar with the miller, a broker will be used as an intermediary. The broker draws up the contract for the buyer and the seller, but is never the owner of the shipment. The seller then ships the rice to the importer, after which brokers generally receive a commission of 1%.

The major part of EU sales of rice for human consumption is realised through the **supermarket channel**. Supermarkets buy their rice from food manufacturers and/or from rice millers. As is the case with many (food)products, the market share of private label rice has increased considerably over the last ten years.

As a result of the convenience trends, rice increasingly finds its way through the **processing industry** (e.g. pasta and bread industries, beer and other liquor distilleries) to the supermarket shelves. It is estimated by industry sources that approximately 20% of EU

demand for rice finds its way to food manufacturers which use the rice in their instant meals. The market share is expected to increase to 30%-40% in the near future. Most often, the processing industry does not directly trade with exporters in developing countries, but through brokers, agents or importers. They prefer to outsource the risks and costs such as import licences and certification involved in trading.

The use of rice in the pharmaceutical and cosmetic industry is also expected to increase as, due to concerns for the environment and health and wellbeing, consumers are becoming increasingly suspicious of products containing synthetic ingredients. As a result, demand for natural-based beauty products is growing – with ingredients, such as rice, rising rapidly in popularity. Euromonitor explains: “Rice has become a favourite in personal care in 2006 and can now be found in products such as Estée Lauder, Elizabeth Arden and Beiersdorf’s Nivea ‘Douceur de Riz’, a shower gel that contains “the softness of rice”. Malaysian producers are among those seizing the chance to supply the cosmetics and toiletries market (Euromonitor, 2006). The amount of rice used in cosmetic products is rather small and therefore does not offer the best opportunities for developing country producers.

Vertical integration

Increasingly, we witness one and the same actor fulfilling several facilities in the product chain, leading to ongoing vertical integration or to completely closed supply chains from the grower to the final consumer. This has mainly initiated by Basmati millers from India and Pakistan which have opened mills in the EU. Moreover, major retail chains and general food stores are capable of varying their supply sources, buying directly from producers, specialised wholesalers, importers, or a combination thereof.

Due to increased concentration, the trade channel for rice as shown in Figure 8.1 is basically the same for all European countries concerned. The European rice market is dominated by the Ebro Puleva Group, with its headquarter based in Spain. The rice division is the most international business of the Ebro Puleva Group. It initially operated through Herba, which was wholly taken over and turned into a division of the Group in 2001. Ebro Puleva is the world’s largest rice processing company and in Europe attains a markets share of 30%.

Whilst the trade channel for rice in Europe shows signs of increased concentration, the market of food manufacturers is fragmented and much less transparent. Mostly, food manufacturers arrange their purchase on a national level (less on a European level) and buy their rice from the rice millers. Generally, rice millers only perform added value through milling and packaging, while the adding of spices and other ingredients is a completely separate market in the hands of food manufacturers. Since many small companies and only a few multinationals (among which Unilever: <http://www.unilever.com>) operate in this business, this part of the market is less transparent than the general EU rice market.

Listed below are the main players in the European trade channel of rice, please refer to the Country Surveys for more detailed information and names of other players.

Brokers:

- Schepens in Belgium (<http://www.schepens.be>).
- Jackson Son & Co in the UK (<mailto:rice@jackson.co.uk>).
- Marius Brun et Fils in France (<http://www.brunrice.com>).
- European brokers are united through Arvensia, the European Network of grain brokers (<http://www.arvensia.com>).

Commodity traders:

- Nidera (<http://www.nidera.com>) founded in The Netherlands in 1920.
- The Rice Company (<http://www.ricco.com>) of American origin and founded in 1991.
- ADM (<http://www.admprivatelabel.com>) founded in 1998, also of American origin.
- Novel Swiss (<http://www.novelcommodities.ch>).

All three are leading agricultural commodities traders serving the global market place, including a strong presence in the European market for rice.

Rice miller groups

- Ebro Puleva Group (<http://www.ebropuleva.com>), taking a 30% market share in the EU.
- Group SOS Alimenteras (<http://www.gruposos.com>) is the second largest food company in Spain after Ebro Puleva Group.
- Euryza GmbH (<http://www.euryza.de>) is the largest miller in Germany (Hamburg) and is part of the Ebro Puleva Group.
- Soufflet Alimentaire Group (<http://www.soufflet.fr>) based in France. Amongst others fields they are active in grain trading and rice and pulses processing. Soufflet Négoce is in the business of originating, handling, transporting and exporting cereals.

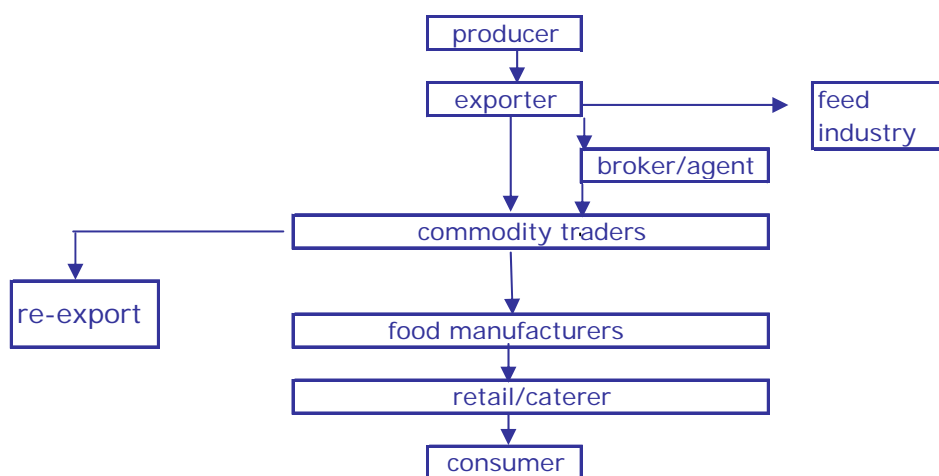
Independent rice millers

- Van Sillevoldt Rijst part of the French Marbour group since October 2003. The production facilities of Van Sillevoldt Rijst are located in The Netherlands (<http://www.vsr-rice.com>).
- The Alesie Group of Companies (<http://www.alesierice.com>) consists of a network of rice-mills in the Caribbean. Alesie Food Holland B.V. is the marketing and brokerage office servicing North and South Europe as well as markets in the Caribbean.
- Tilda in the UK (<http://www.tilda.com>).
- Veetee Rice. also located in the UK (<http://www.veetee.com>)
- Risco Scotti in Italy (<http://www.risoscotti.it>), market leader in growing, researching, processing and trading rice.
- Orisa (<http://www.corisa.it>) a cooperative society of rice-growers which operates in the Campidano plain in Sardinia. Just as Risco Scotti, it follows the whole product cycle
- Riso Gallo, the Italian rice people (<http://www.risogallo.it>). Market leader in risotto.
- Muellers-muehle in Germany (<http://www.muellers-muehle.de>).
- EuroBasmati in Hamburg. Germany specialized in Basmati rice (<http://www.euroBasmati.com>).
- Nouvelle Rizerie in Dunkerque, France (<http://www.nouvellerizeriedunord.com>).

These independent rice millers also import wholly-milled rice (white rice) when extra-EU prices are low or within duty free TRQ's. However, they mostly process cargo rice, whilst the trade of white rice is also in the hands of smaller sized food importer firms.

Pulses

Figure 8.2 The trade channel for pulses



As indicated by AEP as well as industry sources, the European pulses market is a concentrated and competitive market with a small number of canneries, food companies and packaging companies holding the major share of the market. Furthermore, the market is characterized by

an inadequately low level of innovation and marketing of pulse products, a lack of consumer awareness of grain legume crops and products, and a lack of communication at many levels of the food chain (AEP, Overview of the market and consumption of pulses in Europe, 2002).

Extra-EU suppliers of pulses for the **animal feed industry** (which only occurs in small amounts, as the EU is largely self-sufficient in pulses for animal feed) mostly export directly to the animal feed industry, without interference from importer/wholesalers. A leading company in the animal food industry is Cehave based in The Netherlands (<http://www.cehave.nl>) with production plants in The Netherlands, Belgium, Poland and China. They export premixes, nutritional speciality products and concentrates worldwide.

Extra-EU suppliers of pulses for **human consumption** export their pulses in bags of 50 kilograms to **commodity traders** in the EU who repack the pulses to be re-exported or distributed further to **food manufactures**, who eventually sell the processed pulses to the **retailers**. As indicated by importers, they normally do not trade directly with pulse suppliers but use an agent. Especially when a trader is unknown, an agent will be used as an intermediary to diminish the risks involved.

Little value adding takes place in the country of origin. In general, only the cleaning takes place in the country of origin and then still European importers stress that they need to clean the load again to obtain 99.9% purity. Grading and colour sorting can also take place in the country of origin but not necessarily. After cleaning and grading, the pulses may undergo further processes before being shipped. These processes include de-hulling, spitting, micronisation and fractionation. Goods produced via these methods include dry bagged split pulses and instantised pulses for retail packaging and canning, or as inputs for the ingredients market. Most European processing plants purchase cleaned raw pulses in 25 or 50 kg bags or in bulk containers; processors may use these large bags or bulk shipments directly (for canning) or repackage them into consumer size packages.

Leading **commodity traders** in the EU are:

- Alanheri (Produkten) B.V (<http://www.alanheriprodukten.com>) an international trading company in agricultural commodity products such as cereals, various seeds, pulses, rice, dehydrated vegetables and dried fruits, based in The Netherlands with representative offices in China, Czech Republic and Ethiopia.
- DKSH Holding (<http://www.dksh.com/netherlands>). DKSH in The Netherlands deals in rice, seeds, pulses for human consumption, animal foods and by-products. They source, manufacture, market and distribute raw materials, own brands and private label brands.
- Poortman (<http://www.poortman.com>) an international distributor of pulses, edible seeds & birdseeds, based in the UK. Suppliers to manufacturers, canners, packers, wholesalers, importers. Sources mainly in China; Eco Organic Foods is a division of Poortman, they do organic pulses.

These traders supply the repackaged pulses to food manufacturers, canners and wholesalers, The most important **food-processing companies**, with their own brands in the EU are:

- Heinz Food Company (<http://www.heinz-direct.co.uk/>) of American origin. Their baked beans are especially popular in the UK.
- Hak and Jonker Fris, two leading preserved food companies in the EU, based in The Netherlands. Until 2005, Hak was part of the American H.J. Heinz Company and Jonker Fris belonged to the British Premier Foods. Since 2005, both companies have been taken over by the Netherlands' investor NPM (<http://www.npm.nl>) under the campaign 'Neerlands Glorie' (Dutch Glory).
- Bonduelle Group (<http://www.bonduelle.com>) emerged from the North of France and is now present in over 80 countries worldwide, their brand has the largest market share in France.
- Williams, of American origin (<http://www.williams.com>) market leader in TexMex meals under which "William chilli beans".

- Lima Food, based in Belgium (<http://www.limafood.com>), a pioneer in organic foods since 1957. Lima is part of the international group Hain Celestial and distributes more than 250 products through grocery and specialty store outlets in the EU and Japan. Lima exports 80 % of its production, mainly to France and Germany.
- Soufflet Alimentaire Group, based in France (<http://www.soufflet.fr>). Apart from rice, they are also major importers and processors in pulses. Soufflet Alimentaire imports raw materials from five continents. In contrast to Bonduelle and the other just mentioned food processors, Soufflet Alimentaire does not have its own brand for pulses.
- Muellers-muehle in Gelsenkirchen – Schalke, Germany (<http://www.muellers-muehle.de>)

Retail trends rice and pulses

Strong competitive pressures are forcing large supermarket chains to merge and independent retailers to form cooperative buying groups. Large chains have a lot of buying power, allowing them to keep prices very competitive while, at the same time, financing large scale promotional campaigns. The following developments are becoming increasingly evident in the European retail food industry:

- Increased category management
- Increased popularity of private labels
- Cross docking and Just-in-Time (JIT) Inventory

Implications of these developments are that the European retail food market will become more and more competitive. Additionally, companies aiming to supply to the European market must be able to work within the framework of the evolving industry. Retailers and wholesalers no longer want to hold large amounts of products in their warehouses. Retailers increasingly require processors to expand and integrate their services to include retail promotion and category management. To succeed in the European market, developing country processors must be able to supply the minimum required quantities, provide product and financial support and successfully compete in an aggressive market. Niche marketing is a viable alternative for small developing country processors if they specialize in a particular product/product line and are able to provide extraordinary service and support at the retail and consumer levels. An example of niche marketing is gluten-free or organic products.

Please refer to the country surveys for some names of leading retailers.

Organic trade

Generally, trade in organic rice and pulses occurs through traders specialised in organic commodities. Rice millers do not directly import much organic rice, because of the extra costs involved for cleaning the machinery.

The most important traders in organic commodities are primarily situated in Northern Europe, especially The Netherlands, Belgium and Germany. The commodities enter the European market via the ports of Rotterdam, Antwerp and Hamburg to be distributed further in the EU.

Please refer to the country surveys for specific information on trade channels for organic rice and pulses.

8.2 Useful sources

- Grain net, for news and information for the grain, milling, feed and seed industries, at: <http://www.grainnet.com/equipmentdirectory.html>.
- Food navigator Europe, for information on prices, business opportunities, mergers and innovation, at: <http://www.foodnavigator.com>.
- Two good examples of on-line marketplaces are <http://www.agricoreunited.com/cgi-bin/bvsm/AU2/index.jsp> and <http://www.foodtrader.com/>
- Organic Trade Services provides industry news and a marketplace for organic products, at: <http://www.organictrades.com/>.

- Greentrade. net is the marketplace reference in the organic industry. It is an international exchange platform for organic producers, manufacturers, and distribution networks, at: <http://www.greentrade.net>.
- Green Trade Net, the international database for organic products, at: <http://www.green-tradenet.de/>.
- COCERAL's mission is to express the position of the European trade and can be considered as a key intermediary as regards the European institutions and other international players, at: <http://www.coceral.com/main.html>.

9 PRICES

9.1 Prices

The prices of rice and pulses and the margins for the importers in the European Union depend on:

- Type of product (species);
- Timing, quantity and quality of world harvests (seasonality, weather conditions, etc.);
- Size and quality of stocks;
- Developments in related markets (livestock and feed markets);
- Relative quality of supplies;
- Exchange rates;
- Size of the order;
- Costs of production (blending, refining, packaging, transporting);
- Length of trade channel;
- Relationship between business partners; and
- Non-tariff trade barriers.

Organic rice and pulses are sold for around 25% extra in the speciality stores and supermarkets. This margin is spread out over the whole product chain, so it is difficult to estimate what premium the developing country exporter of the organic commodity receives. Unfortunately it happens that when there is a surplus of organic commodities, the products find their way to the conventional market, so that the exporter does not receive a price premium at all. Organic commodity traders find it hard to estimate how often this happens, but in general there is a shortage of supply of organic rice and pulses.

Due to changing weather conditions, prices of rice and pulses fluctuate strongly. The unpredictability of the weather also makes it impossible to predict prices for a period of more than a couple of months. However, many countries have built up stocks to have more control over supplies of rice and pulses and consequently over prices. Therefore, prices do not fluctuate as strongly as production volumes.

Table 9.1 Producer prices of rice and pulses, 2001-2003, €/tonne

	2001	2002	2003
Rice, paddy	304	305	281
Chick peas	832	831	922
Urad and mung beans	762	794	764
Lentils	768	818	823
Broad and horse beans	599	553	533
Other leguminous vegetables	590	518	492

Note: Figures are averages of prices in EU countries for which data are available and are only comparable between years.

Currency converted from US\$ to Euro using annual average exchange rates.

Source: FAO (2006)

Table 9.2 Prices of rice and pulses between January - December 2006, €/mt

		2006 High	2006 Low
Rice	Thai long grain white 100% B grade FOB, shipment (€/mt)	259	155
	Pakistan Basmati super, FOB Karachi (€/mt)	503	418
	Pakistan Basmati ordinary, FOB Karachi (€/mt)	422	398
	Vietnam 5% broken, C&F West Africa (€/mt)	240	236
	China 25% broken, FOB Beijing (€/mt)	161	159
Chickpeas	Turkish 1%, recleaned, ex-store UK	951	954
	Turkish 1%, CIF UK (€/mt)	684	677
Beans	US No.1 navy beans, ex-store UK	731	733
	US No.1 navy beans, CIF UK (€/mt)	523	518
	Dark red kidney UK, recleaned polished, ex-store UK	922	924

Lentils	Dark red kidney beans, No.1 grade CIF UK (€/mt)	643	637
	Black eyed beans No.1, ex-store UK	951	954
	Black eyed beans, CIF UK (€/mt)	724	717
	Lima beans Californian No.1, ex-store UK	1,039	1,042
	Lima beans Californian No.1, CIF UK (€/mt)	804	797
	Turkish red split crop 1+1 water polished, ex-store UK	922	924
	Turkish red split crop 1+1 water polished, CIF UK (€/mt)	483	478

Currency converted from US\$ and British £ to Euro using yearly average exchange rates.

Source: Public Ledger (December 11, 2006)

Rice

Due to the restricted nature of the international rice market (5% of global production) and to the residual character of currency exchanges (producing countries produce first and foremost for their own consumption), international prices are extremely volatile. The opportunity for some countries to be either an exporter or an importer increases rice price instability. In fact, some large producers are practically self-sufficient and can be, depending on the year, exporters, importers or both simultaneously. Furthermore, changes occur in the support programmes and trade policies of main producing countries. This leads to significant changes in traded volumes and producer prices. Variations in the trade price reflect brand, product and packaging considerations. Most variations in trade pricing have little to do with brand or product, especially since certain brands are owned by one and the same group.

The international market is not influenced by referential prices, or by "Chicago Board of Trade" (CBOT) futures quotations - which have no liquidity. Nevertheless, it is still possible to obtain an idea of the long-term evolution of rice prices by observing the market of Thai White Rice, 5% Broken. In fact, this type of rice was chosen as a reference for the futures market in Bangkok, in function since 2003 (UNCTAD, market information in the commodities area). It should be noted that there is a correlation between the high-quality and low-quality rice markets; they often move in the same direction. However low-quality rice prices tend to fall more. The intensity of price fluctuations depends on the specific demands for each type of rice.

Table 9.3 Rice price indices (1998-2000 = 100), 2001-2005

	All	Indica		Japonica	Aromatic
		High	low		
2001	74	74	74	76	69
2002	72	73	75	67	74
2003	82	79	81	82	91
2004	104	101	110	104	96
2005	103	104	115	92	94
Jan-Sep 2006	107	112	113	100	100

High quality Indica rice less than 20% broken.

The index for aromatic rice follows price movements for Basmati and Fragrant rice.

Source: FAO Rice Market Monitor (September 2006)

Following a slight dip in prices in mid-2005, world rice prices are once more reaching the historic high levels seen in early 2004. US rice prices, notoriously volatile over recent years, have risen by 16% since September 2005. With continued uncertainty about the size of the 2006 US long-grain crop and falls in US rice stocks, these higher prices seem likely to be maintained. A similar price trend has been seen in Thailand, with the Thai government holding record stocks of rice (an estimated 5 million tonnes) and the Thai Baht strengthening over recent months. Thai rice prices increased by 17% over the course of 2006. Again no significant drop in prices is anticipated in the near future.

The prices in Thailand and the US reflect a more global phenomenon of insufficient rice supply. The USDA forecasts an 8% decrease in world ending stocks for 2006, to 66.1 million tonnes, the lowest stocks have reached since 1982-3. This represents a decline in global stocks for the fifth successive year (<http://www.ferm-eu.org>).

- European paddy rice prices also show an continuous increase in price level for the last couple of years. Part of this can be attributed to the Common Agriculture Policy reform. EU farmers are essentially limited to producing what is currently around 63% of the rice required by an enlarged EU. With the prices of international competitors rising around the world and with increased tariffs restricting imports of raw materials, European raw materials have been largely unchallenged. This has resulted in a sharp increase in the price of European paddy rice. In 2004/2005, the European Commission managed to stabilize the market by releasing over 300 thousand tonnes of rice from European intervention stocks. However, these stocks are now almost entirely depleted, leaving Europe's institutions powerless to counter rising prices. No significant drop in European prices is therefore currently foreseen in the near future.

Pulses

Prices of pulses are volatile compared to prices of other commodities as the market for pulses is a thin market; trade volumes are small. Pulses are basic products and the markets for these products are very competitive. Therefore, as stressed by industry sources, the margins are not very high. The exact amounts are not known, but the margins for the retail trader are probably larger than for the importer/wholesaler.

Prices of pulses are relatively low compared to prices of other basic food crops. The importance of pulses in diets of many people in developing countries is directly related to these low prices. Although the prices of pulses fluctuate, over the whole line the prices are stable with no trends pointing at an overall increase or decrease of the average price per ton. Factors of influence on the price development of pulses:

- The output forecast of for the major exporting countries (Australia, Canada, the united States, France, China, Myanmar and Turkey);
- Developments in related markets (livestock and feed markets) especially for feed-type pulses such as broad and horse beans;
- Exchange rates, because they determine the purchasing power of importers;
- Freight rates, because they add to the import cost and have effects on both the volume and flow of trade.

9.2 Useful sources

- FAO (Food and Agriculture Organization): <http://www.fao.org/>.
- Netherlands' Commodity Board for Arable Products: <http://www.gzpz.nl/>.
- Public Ledger: <http://www.public-ledger.com/>.
- Oryza (information about global rice market): <http://www.oryza.com/>.
- Rice online (information about global rice market): <http://www.riceonline.com/>.

10 MARKET ACCESS REQUIREMENTS

As a manufacturer in a developing country preparing to access EU markets, you should be aware of the market access requirements of your trading partners and the EU governments. Requirements are demanded through legislation and through labels, codes and management systems. These requirements are based on environmental, consumer health and safety and social concerns. You need to comply with EU legislation and have to be aware of the additional non-legislative requirements that your trading partners in the EU might request.

10.1 Legislative requirements

European legislation is compulsory for all products traded within the EU. Therefore, as an exporter in a developing country you have to comply with the legislative requirements that are applicable to your products. For information on legislation, go to 'Search CBI database' at <http://www.cbi.eu/marketinfo>, select Food Ingredients and the EU in the category search, click on the search button and click on legislative requirements for an overview of all documents on legislation.

10.2 Non-legislative requirements

Social, environmental and quality related market requirements are of growing importance in international trade and are often requested by European buyers through labels, codes of conduct and management systems. For information on non-legislative requirements go to 'Search CBI database' at <http://www.cbi.eu/marketinfo>, select your market sector and the EU in the category search, click on the search button and click on your subject of interest under non-legislative requirements for an overview of all documents on the subject concerned.

For more information on global standards for quality, packaging and labelling please refer to the following documents of the Codex Alimentarius on rice and certain pulses respectively:

- http://www.codexalimentarius.net/download/standards/61/CXS_198e.pdf
- http://www.codexalimentarius.net/download/standards/54/CXS_169e.pdf
- http://www.codexalimentarius.net/download/standards/55/CXS_170e.pdf
- http://www.codexalimentarius.net/download/standards/56/CXS_171e.pdf

The standards of the Codex Alimentarius often serve as guidelines for international trade standards.

Important non-legislative requirements for the two commodity groups as stated by industry sources are quality, consistency in quality, traceability and authenticity.

Rice

Market fragmentation has impeded the establishment of internationally recognized grades or quality standards in the rice market. Presently there are more than 50 different published international price quotations for rice. The international rice market can be broken down into several sub-markets, depending on at least three criteria:

- Based on the variety, there exist four distinct rices: Indica long grain rice), Japonica (a medium grain, which is sticky and humid when cooked), aromatic (a long grain, scented variety) and glutinous rice.
- Each of these can be further distinguished according to the quality of grain, typically on the percentage of broken and other factors, including the percentage of impurities, colour and chalkiness of the grain. In order to distinguish higher from lower qualities, FAO uses an arbitrary benchmark, with rice containing less than 20% of broken rice classified as "higher quality" and rice containing 20% or more broken as "lower quality".
- The degree of processing constitutes another criterion for segmentation of the rice market, with rice traded either in the form of paddy, husked, milled or parboiled rice.

The European Milling Federation stressed that changing European regulatory demands – evolving hygiene, traceability, contamination and pesticide legislation – continue to escalate the costs of milling. The most notable innovation in 2006 and earlier mentioned under Section 5.2 has been Community demands for DNA sampling of Basmati rice. This has placed an additional cost (estimated at an average of € 200/batch analysis) on importers. With new EU reviews of contaminants and pesticide anticipated over the coming 12 months, such technical costs are, according to the Federation of European Rice Millers expected to rise in the near future. Thanks to DNA analyses, prices for fragrant rice are more clear and open. Given the fact that it prevents the mixing of rice in countries of origin resulting in a more honest price and improving reputation of the product and rice industry in general, this can be seen as an opportunity for developing country producers. However, the extra costs involved could of course be a serious bottleneck.

10.3 Packaging, marking and labelling

The packaging and labelling practices are basically the same for rice and pulses. A general requirement is that rice and pulses are packaged in containers which safeguard the hygienic, nutritional, technological, and organoleptic (i.e. scent, colour and pureness) qualities of the product. When the product is packaged in sacks, these must be clean, sturdy, and strongly sewn or sealed. Polyethylene bags are usually used for packing rice and pulses, on which the brand or private label could be sealed. European rice and pulses are sold either in a truck load (140 sacks of 100 kg each per truck) or in packs of 1.5 and 15 kilograms to manufacturers or retailers.

In the case of international distribution, exporting channels could either be in break bulk vessels or container vessel. The former type of vessel carries very heavy loads ranging from a few hundred metric tons up to over 25,000 metric tons. Rice and pulses are packed into polyethylene bags, each of which is directly transferred to the break bulk vessel. The net weight for each packed bag varies from 1 kg, 30 kg, 50 kgs, to 1 metric ton. Container vessels are commonly used as a means to ship import and export goods internationally, and provide a quick and convenient way to load and unload the packed commodities. However, a container vessel could carry less weight and the shipping cost is more expensive than that of the break bulk vessels. The weight per container ranges from 23 (20' container) to 27 (40' container) metric tons. After transferring packed rice and pulses into a container, the latter is loaded on to the vessel's deck.

Packaging of **rice** varies greatly from one brand to the next, although sizes are more or less uniform. Pre-prepared products (curry rice, Cantonese-style rice, etc.) normally come in packs or pouches of 1 kg, 500 gram or 350 gram. When the rice is destined for a restaurant or a work canteen, however, package sizes can be greater.

Rice arriving in Europe can either already be packaged (if the producer took care of this) or in bulk. In the former case the producer is the one who has to comply with European wrapping and packaging norms. Generally, the following rules are defined:

- Where the packaging is sealed (i.e. rice sent in pouches, bags, boxes, etc.) it has to feature the following markings, either written directly on the container or else on a label:
 - Appropriate commercial title indicating whether the rice is of a deluxe variety and, if so, whether it has been coated (or if it is "pre-cooked");
 - Net weight, where smaller packages contained within a larger one are being shipped. The total net weight has to be a multiple of 250 gram (except for pre-cooked rice which can be sold in pouches of 200 gram);
 - A marking indicating in the habitual manner, on the packaging or on the label, the name or brand of rice, thus identifying the grower or packager, as per the stipulations of the most recent current legislation.
- In the case of pre-cooked rice, the packaging must define the pre-cooking process and give instructions as to how much time consumers will need to cook the rice.

- If the rice is being sold in bulk, the drawers, boxes and other containers in which it is being transported must include a label or sticker making clear to the rice's purchasers the name and/or category of rice they are receiving. It is strictly prohibited to mislead purchasers, or to include indications that may confuse them as regards the nature, substantive attributes and characteristics of the goods being sold (ITC Market Brief "The French Rice Market". 2003).

You can download information on requirements on packaging, marking and labelling in specific EU countries from the CBI website. Go to 'Search CBI database' at <http://www.cbi.eu/marketinfo>, select your market sector and the EU country of your interest, click on the search button and click on 'market surveys' for an overview of documents on the country of your interest.

For more information on packaging and labelling, see also the earlier mentioned documents of the Codex Alimentarius under Section 10.2.

10.4 Tariffs and quota

You can download information on requirements on tariffs and quota in specific EU markets from the CBI website. Go to 'Search CBI database' at <http://www.cbi.eu/marketinfo>, select Food Ingredients and the EU country of your interest, click on the search button and click on 'market surveys' for an overview of documents on the country of your interest.

Conventional duty rates for rice and pulses are laid down in EC No. 1549/2006: http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_301/l_30120061031en00010880.pdf

However, in order to support exports from developing countries, the EU operates the Generalised System of Preferences (GSP). As from 1 January 2006, a new GSP system became applicable; it consists of 3 schemes instead of 5 as in the years between 1995 and 2006. The general scheme covers roughly 7, 200 products which can be divided into non-sensitive products and sensitive products. Non-sensitive products enjoy duty free access, while sensitive products benefit from a tariff reduction of 3.5% points on the Most Favoured Nation (MFN) tariff.

Everything but Arms

Also from 1 January 2006, a new 'GSP Plus' scheme applies to especially vulnerable countries with special development needs. The beneficiaries must meet a number of criteria including ratification and effective application of 27 key international conventions on sustainable development and good governance. There is a special scheme for Least Developed Countries (LDCs): 'Everything but Arms'. This allows for the world's 50 poorest countries duty-free access to the EU for all products except arms and ammunition.

To apply for the GSP preferential tariff, the evidence of origin has to be submitted to the EU Customs by a Certificate of Origin, known as 'Form A' or 'EUR 1'. This form must be completed by the exporter and subsequently be endorsed by the authorities of the exporting country which have been nominated by the European Commission to issue 'Form A' or 'EUR 1'. Two conditions attached to the application of the GSP preferential tariff are:

- only goods originating in a beneficiary country are eligible for GSP treatment;
- the goods must be transported directly from the exporting country to the EU.

More information about the GSP and the countries falling under the GSP scheme can be found at: http://europa.eu.int/comm/trade/issues/global/gsp/index_en.htm

Common Agricultural Policy Reform

As of June 2003, EU farm ministers adopted a fundamental reform of the Common Agricultural Policy (CAP). The 2003 CAP reform requires the decoupling of support payments from production, under the act: the Single Farm Payment (SFP). This will completely change the

way the EU supports its farm sector. The new CAP will be geared towards consumers and taxpayers, while giving EU farmers the freedom to produce what the market wants. In future, the vast majority of subsidies will be paid independently from the volume of production. The reforms also had vast consequences for producers of rice and pulses, briefly discussed below.

EC Rice Regime

Over the last two years, major changes to the EC rice regime and resetting of European import tariffs for rice have led to a fundamental reshaping of the rice market. The Reform in 2003 aimed to stabilise the rice market and reduce intervention stocks which had been accumulating since the mid-1990s. The Reform reduced the intervention price for rice by 50% to € 150/ton in order to be more closely aligned to world prices. Rice producers were compensated with an increase in direct aid: from € 52/ton to € 177/ton. Of this, € 102/ton is part of the single farm payment and € 75/ton is crop specific aid. The Maximum Guaranteed Areas granted to rice production were also reduced. EU farmers are now limited to producing what is currently around 63% of the rice required by an enlarged EU.

In the light of reductions in the intervention price, the European Community sought to renegotiate the tariff structure under GATT Article XXVIII negotiations. Through negotiations undertaken independently with the US (for brown rice) and Thailand (white rice), agreement was finally reached to reduce bound rates to € 175/ton for white rice and € 65/ton for brown rice. The actual rates applied by the Community vary (between € 30 and € 65/ton for brown rice and € 145/ton and € 175/ton for white rice) according to the respective volumes of rice imported in the previous 6 months. In September 2005, when the Post-CAP reform trade negotiations ended, the tariff was set at € 42.5/ton and after relatively low imports in the first quarter of the campaign, the expectation was that the € 42.5/ton tariff would be maintained throughout 2005/6. However, uncertainty provoked 'panic' purchases of brown rice in 2006. As a result the trigger import volume was met and, contrary to expectations, the tariff rose by € 22.5/ton to € 65/ton. Therefore, please keep in mind that the import tariffs as in Table 10.1 are regularly subject to change.

Pulses

Decoupling officially began in 2005, but individual countries may delay implementation until 2007. Regarding crops, nearly all EU countries plan to have full decoupling by 2006. The system of support in the ten countries which joined the EU in 2004 is somewhat more complex, but generally pulse crops and rice (Hungary) in these countries will receive lower levels of support for a number of years. Broad and horse beans are classified as protein crops. They are eligible for additional premium; the amount of aid is € 55.6 per hectare for a maximum guaranteed area of 1.4 million hectares for the EU. Chickpeas and lentils will have the same SFP as other types of production starting in 2006.

A reduction of the Customs duty payable for a number of products, is allowed for limited quantities of imports. The contingents for these products are often reached within a few days. At the moment that the total EU imports of the products exceed the contingent, the general tariff applies again. The actual status of contingents can be found at the following website: http://ec.europa.eu/taxation_customs/dds/en/qotcau.htm.

Table 10.1 Import tariffs by product group

HS code	Product description	Conventional import duty (%)	Country group	
			SPGA Contingent	SPGA Conventional
10	Cereals			
1006	Rice			
1006 10	Rice in the husk (not for sowing practices)	€ 211/t	0	€ 168.8/t
1006 20	Rice, husked (brown)	€ 42.5/t	0	€ 34/t
1006 30	Rice, semi-or wholly milled, polished etc or not	€ 145/t	0	€ 332.8
1006 40	Rice, broken	€ 65/t	0	€ 102.4
07	Edible vegetables			
0713	Pulses			
0713 20	Chickpeas	0	n.a.	0
0713 31	Urad and mung beans	0	n.a.	0
0713 32	Adzuki (Small red) beans	0	n.a.	0
0713 33	kidney beans	0	n.a.	0
0713 39	Other Vigna and Phaseolus beans	0	n.a.	0
0713 40	Lentils	0	n.a.	0
0713 50	Broad and horse beans	3.2	n.a.	0
0713 90	Other leguminous vegetables	3.2	n.a.	0

Note: SPGA: excluding Myanmar. SPGL: excluding Chile and Moldavia

Source: <http://hbi.douane.nl/tarieven/aktueel/M/S2/ContentFS.htm> (November, 2006)

Value added taxes (VAT)

Although fiscal borders between EU countries were in theory dominated from 1 January 1993 onwards, in practice, harmonisation of VAT (tax levied at consumer sales' level) rates has not yet been achieved. Please refer to the country surveys for the VAT rates applied in the different EU member states.

Import duties are levied on the value of the products at the moment of entrance into the European Union. i.e. Customs value (as established in the GATT valuation code). Regarding rice, a fixed tariff is applied as explained under the EC Rice Regime (Table 10.1). In the case of an importer who buys FOB, the import duty will be calculated on the basis of the FOB price, increased by the shipment costs up to entrance into the EU. An importer buying CFR or CIF will have to pay import duties calculated based on the CFR/CIF price, minus the shipment costs made within the EU.

It is very important to realise that this information is more complex than indicated (because of exceptions and special rules) and that VAT rates and import tariffs are subject to continuous changes (like the exhaustion of quota). Therefore, this information can only be considered as an indication of the actual situation. For exact and up-to-date information on import duties one should contact the local Chamber of Commerce or Trade Promotion Office. Information can also be obtained from the Chamber of Commerce in Rotterdam, the European Commission or the Customs department. Another option is to consult the Internet site of the Netherlands Customs where the General Customs Tariffs for all products are listed, including exceptions that are made for import from specific countries. This information, written in Netherlands' language, is up-dated daily.

APPENDIX A HS CODES OF RICE AND PULSES, 6-DIGIT CLASSIFICATION

HS codes	Products
1006	Rice
1006 10	Rice in the husk (paddy)
1006 20	Rice, husked (brown)
1006 30	Rice, semi-or wholly milled, whether or not polished or glazed: parboiled
1006 40	Rice, broken
0713	Pulses
0713 20	Chickpeas (Garbanzos), dried; whether or not skinned or split
0713 31	Urad and mung beans (Vigna Mungo, Vigna Radiata L. Wilczek), dried, shelled; whether or not skinned or split
0713 32	Adzuki (small red) beans, dried, shelled; whether or not skinned or split
0713 33	Kidney beans (Phaseolus Vulgaris), dried, shelled; whether skinned or split
0713 39	Other beans of the species Phaseolus (common) and Vigna, dried; whether or not skinned or split, like Pinto, Lima, Black, White, Navy or Pea beans
0713 40	Lentils, dried, shelled; whether or not skinned or split
0713 50	Broad beans and horse beans, dried, shelled; whether or not skinned
0713 90	Other leguminous vegetables, shelled, dried; whether or not skinned or split

APPENDIX B LISTS OF DEVELOPING COUNTRIES

OECD DAC list - January 2006 - When referred to developing countries in the CBI market surveys, reference is made to the group of countries on this OECD DAC list of January 2006:

Afghanistan	Gabon	Nepal	Uruguay
Albania	Gambia	Nicaragua	Uzbekistan
Algeria	Georgia	Niger	Vanuatu
Angola	Ghana	Nigeria	Venezuela
Anguilla	Grenada	Niue	Vietnam
Antigua and Barbuda	Guatemala	Oman	Wallis & Futuna
Argentina	Guinea	Pakistan	Yemen
Armenia	Guinea-Bissau	Palau	Zambia
Azerbaijan	Guyana	Palestinian Admin. Areas	Zimbabwe
Bangladesh	Haiti	Panama	
Barbados	Honduras	Papua New Guinea	
Belarus	India	Paraguay	
Belize	Indonesia	Peru	
Benin	Iran	Philippines	
Bhutan	Iraq	Rwanda	
Bolivia	Jamaica	Samoa	
Bosnia & Herzegovina	Jordan	Sao Tome & Principe	
Botswana	Kazakhstan	Saudi Arabia	
Brazil	Kenya	Senegal	
Burkina Faso	Kiribati	Serbia	
Burundi	Korea Rep. of	Seychelles	
Cambodia	Kyrgyz Rep.	Sierra Leone	
Cameroon	Laos	Solomon Islands	
Cape Verde	Lebanon	Somalia	
Central African Rep.	Liberia	South Africa	
Chad	Libya	Sri Lanka	
Chile	Macedonia	St. Helena	
China	Madagascar	St. Kitts Nevis	
Colombia	Malawi	St. Lucia	
Comoros	Malaysia	St. Vincent & Grenadines	
Congo Democratic Rep.	Maldives	Sudan	
Congo Rep.	Mali	Suriname	
Cook Islands	Marshall Islands	Swaziland	
Costa Rica	Mauritania	Syria	
Cote d'Ivoire	Mauritius	Tajikistan	
Croatia	Mayotte	Tanzania	
Cuba	Mexico	Thailand	
Djibouti	Micronesia. Fed. States	Timor-Leste	
Dominica	Moldavia	Togo	
Dominican Republic	Mongolia	Trinidad & Tobago	
Ecuador	Montenegro	Tunisia	
Egypt	Montserrat	Turkey	
El Salvador	Morocco	Turkmenistan	
Equatorial Guinea	Mozambique	Turks & Caicos Islands	
Eritrea	Myanmar	Tuvalu	
Ethiopia	Namibia	Uganda	
Fiji	Nauru	Ukraine	

CBI countries – January 2007:

CBI supports exporters in the following Asian, African, Latin American and European (Balkan) countries:

Albania
Armenia
Bangladesh
Benin
Bolivia
Bosnia-Herzegovina
Burkina Faso
Colombia
Ecuador
Egypt
El Salvador
Ethiopia
Georgia
Ghana
Guatemala
Honduras
India
Indonesia
Jordan
Kenya
Macedonia
Madagascar
Mali
Moldavia
Montenegro
Morocco
Mozambique
Nepal
Nicaragua
Pakistan
Peru
Philippines
Rwanda
Senegal
Serbia
South Africa
Sri Lanka
Suriname
Tanzania
Thailand
Tunisia
Uganda
Vietnam
Zambia