

## The Food Industry In Poland

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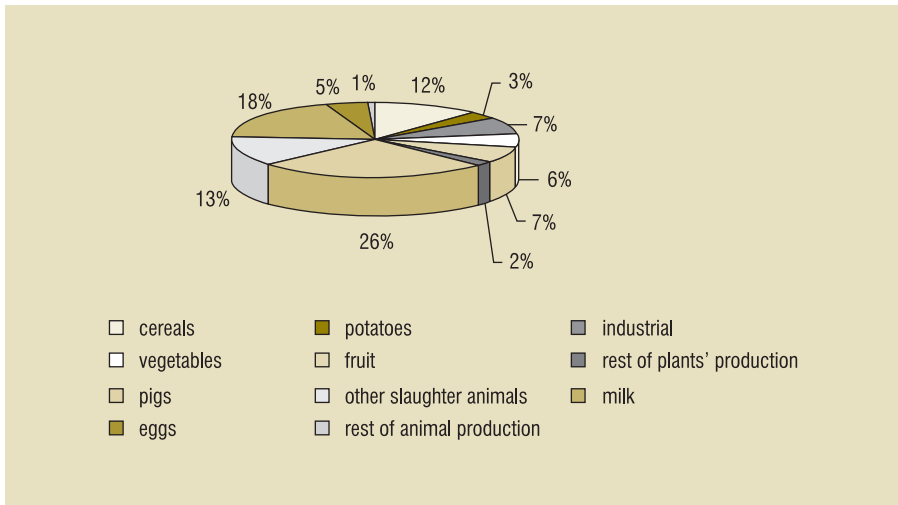
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### ■ 12.1 INTRODUCTION

The accession of Poland to the EU countries was closely connected with a change of its agricultural policy, such as implementation of Common Agricultural Policy and the Integrated System of Control and Management procedures, which would enable receiving direct payments for agriculture. Subsequently, 1.4 million farmers applied for direct payments, covering up to 94 per cent of the land area feasible to receive these payments. In 2004 agricultural sector received 8.1 billion PLN, about 2 billion Euros in total. As a new EU member, Poland has become a subject of the common tariff of duties system, implying free movement of goods and services within the EU borders, a fact that contributed to a 40 per cent growth in export of Polish food products in the EU market. Besides, integration had an influence on trade with countries outside the EU including Russia.

In 2004, the Polish economy was on path of dynamic development Gross Domestic Product, industrial production, as well as domestic and foreign trade increased rapidly. Thus, year 2004 can be characterized by the following features:

1. Increase in consumption of vegetable fats, fruits and vegetables
2. Meat consumption decrease by 3 - 4%, dairy products decrease by 0.5% and the animal fats decrease by about 3%.
3. Increase in consumption of drinks, different types of snacks and desserts as well as convenience foods (products for quickly preparing meals).



**Figure 12.1** Percentage of agricultural production in Poland per sector in 2004

Source: [2]

The rapid growth of Polish food export refers to all branches of the food industry. The largest growth has been observed in secondary processing of cereals and the dairy sector, yet in confectionary sector, meat and poultry-farming it can also be described as large. Supply of the Polish food products to the EU markets increased by a rate twice as high as that of the export by the whole food and agricultural sector.

Joining the European Union did not bring any substantial changes in structure of the food industry in Poland. Both the number of industrial companies and level of employment remained at the same level.

The structure of food and drink manufacturers in Poland constitutes a network of about 21,500 operating companies, including:

- 300 large companies (more than 249 workers),
- 1,300 average size companies (50-249 workers)

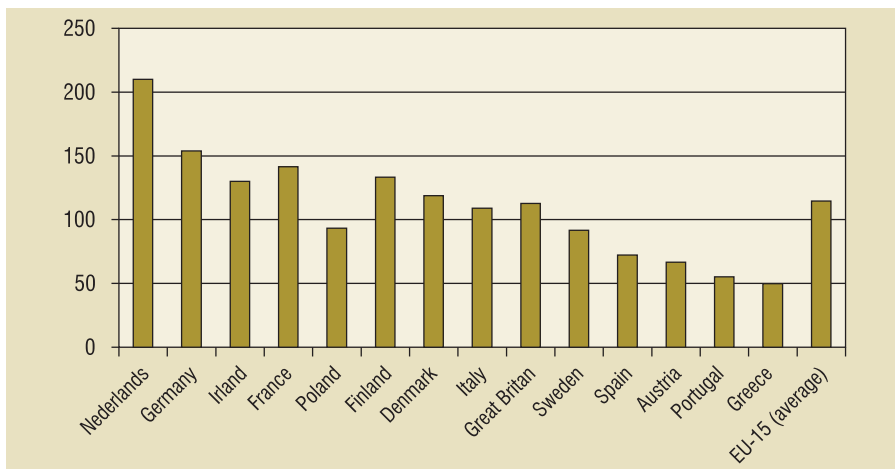
- 5,400 small industrial companies (10-49 workers)
- 14,500 micro-companies (up to 9 workers)

**Table 12.1** Number of companies and size of employment

Specification	Number of companies			Size of employment (in thousand)		
	31 XII 2001	30 VI 2003	30 VI 2004	31 XII 2001	30 VI 2003	30 VI 2004
Production and processing of meat	800	741	784	74.9	76.7	79.1
Poultry production	9	115	125	13.5	15.6	16.5
Fish processing	84	79	85	10.1	9.2	9.9
Processing of milk	333	295	286	49.4	46.6	44.9
Cereals' grinding	150	132	129	8.5	7.6	7.4
Bread production	323	339	350	24.1	23.5	24.4
Pastas production	44	43	44	3.1	3.2	2.9
Confectionery production	61	58	55	8.0	9.1	8.5
Fodders production	155	131	128	9.1	8.1	8.2
Oil industry	14	14	13	3.4	3.1	2.6
Sugar production	73	71	39	16.1	13.6	10.0
Sweets production	86	77	73	17.7	16.2	15.5
Potatoes processing	20	15	15	5.2	4.7	4.7
Starch processing	-	7	8	-	0.8	1.0
Fruit processing	219	199	216	20.7	20.0	23.6
Juices production	31	32	39	5.4	5.6	6.2
Alcohol-free drinks production	104	76	77	12.5	12.8	11.3
Other food production	113	95	99	14.2	12.4	11.8
Coffee and tea processing	36	32	26	4.3	3.7	3.3
Spirit industry	46	40	47	5.8	5.3	5.1
Wine industry	53	41	41	2.9	2.5	2.2
Beer industry	49	52	47	10.9	10.5	9.6
Tobacco industry	15	12	10	8.1	6.2	6.3
Food industry	2906	2696	2736	327.9	317.0	315.0

Source: [32]

Opening of the European market for Polish food products has been followed by an evident increase in their sale. This was due to the European consumers' perception of these products as being organic, produced in a traditional way using small quantities of fertilizers and pesticides (Figure 12.2).



**Figure 12.2** Use of fertilizers in the EU countries (in kilos per hectare)

Source: [25]

Domestic demand is shaped by two factors [6]:

A. The income situation of households

During the third quarter of 2004 real salaries rose only about 0.8%, while at the same time, pensions dropped by about 1%. The real value of welfare benefits also decreased, and the unemployment rate reached 20%.

B. Prices of food products

In the first half of 2004, prices of food rose about 7.2% and their level in the second half-year was about 8.5% higher than in the same period of the previous year. The highest increase has been recorded in case of the prices of sugar, confectionery products, meat, animal fats and dairy products.

Both of the above factors negatively affect the demand of poor people, who constitute about 60% of the whole population.

In the first half of 2004 there has been an increase in investment activity by companies producing foods and drinks. In 2004, expenditure on fixed assets were about 60% higher than at the beginning of the current decade, in current prices it would account for up to 8 billion PLN (2 billion Euro) and rate of investment reaching 8.5%. The largest growth in investment activity was observed in initial processing of animal products in particular, albeit it

was also large in the case of other agricultural products. The own resources are the main source of funding of investments. The increase of debt level and long-term bank credits in funding these processes were also noticeable.

The financial situation of food and drink manufacturers can be characterized by the following [6]:

1. Stability of generating profits, financial security and liquidity and low debts of the manufacturers of coffee and tea, spirit industry, milling, dairy sector, oil and potato industry.
2. Less stable, but also secure, financial state of fish, sugar, fodder, confectionery, tobacco and beer industry.
3. Wine industry, meat and poultry-farming facing the most difficult financial situation.
4. Creating threat for the companies in fruit and vegetable industry, juice, bakery and pasta industry.
5. Increase in the number of profitable companies, which report satisfactory financial results and have secure structure of resources to finance their assets.

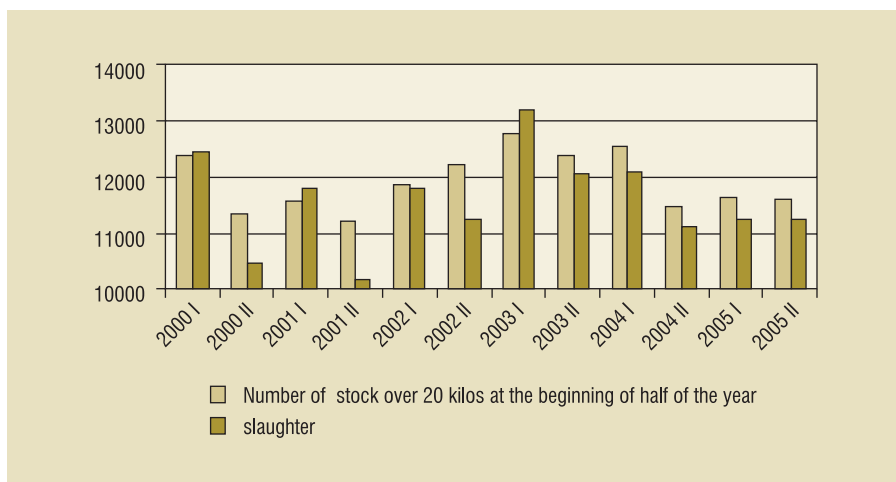
## **12.2 THE MEAT MARKET**

The meat market in 2004 was shaped by two overall factors. First was a decline in pork production and the second, concerning mainly the beef market, was accession to the UE.

### **12.2.1 Pork Market**

In result of appreciation in pork prices and decrease of price of cereal and after packages pasture in the year 2004, breeding of pigs has become profitable again. Pork production in 2004 totalled about 1980 units and was 10,4% or 230 thousand tons lower than in 2003. A slight increase of pork production is expected in the year 2005. A several-percent increase in the fourth quarter of 2005 will not compensate the decline by at least 5% in the first half of the year. However it would begin consequent, gradual increase in production that is estimated to the middle of 2005. The improvement of profitability of pork production has caused growth of interest in breeding of pigs within last year.

In effect in the next months downward tendency will expire and the increase phase of pigs will begin. In the half of 2005 it will be probably larger than in the half of last year and it could be estimated between 17.5 and 17.7 million, versus 17.0 million in mid 2006 stock is forecast to increase to 18.5 million.



**Figure 12.3** Polish stock of pigs and slaughter in thousand heads

Source: [22]

The price developments forecast in Poland would go in line with the price forecast for the EU. In the second half of 2004 the prices of pork in Poland were higher than in the EU, which decreased exports and increased imports. In period January - October 2004 the exports of pork (with products, the fat and offals) totalled about 165 thousand tons and it was about 11% smaller than in the analogous period of 2003. In the first half of 2005, as a result of high prices and the limited range of subsidising the export of pork, its export will be about 1/3 less than in the analogous period of 2004 and be about 80 thousand tons. An opposite situation has occurred in imports. At the beginning of the last year, as a result of low national prices, the import of pork was less profitable. However, imports of pork accrued along with their growth. In the period May - October 2004 it was about 2.6% larger than in the analogous months of 2003, when during the period January - April it was about 24% smaller than in the analogous period of 2003. The total within ten months of 2004 in Poland was about 91 thousand tons of pork, which is over twice more than the previous year [22].

**Table 12.2** Foreign trade in equivalent of pork meat (in thousand tons)

Item	2002	2003	2004	2005 P
<b>Total Export</b>	86,7	250,5	208,6	176,0
of which:				
meet	37,0	201,3	146,6	110,0
products and offals	31,4	17,8	42,4	46,0
<b>Total Import</b>	59,7	58,6	123,5	111,7
of which:				
meet	46,4	51,6	99,1	90,0
products and offals	7,7	5,2	16,9	14,7
<b>Balance</b>	+27,0	+191,9	+85,1	+64,3

*P – prognosis IERiGŻ – PIB, Source: [22]*

### 12.2.2 Beef Market

Adverse (unfavorable) economic conditions in previous years and at the beginning of last year caused downward tendencies in cattle stock. In June 2004 cattle's stock reached 5.4 million, about 2.5% lower than in the analogous period of the year 2003. It is expected, that the growth of prices of beef purchase and lower prices of fodders than the previous year will encourage the farmers to calves breeding and stop the downward tendency in the cattle stock.

Due to the fact of keeping the high supply cows on slaughter in the first half of the previous year the production of beef in this period grew up to 172 thousand tons and it was about 10% larger than in the analogous period of the year 2003. As a result of smaller cattle's older than 1 year-old stock, in the second half of 2004 its supply on slaughter, and in after-effect also beef production - got smaller. Downward tendencies in beef production will continue in the first half of the year 2005. In following period – as a result of limitation the number of calves destined for slaughter and export - reconstruction of young slaughter cattle stock is possible [22,33].

Abolition of customs limits with considerably lower than slaughter cattle prices in majority of remaining countries of EU in Poland caused the growth of export of beef meat and live cattle to these countries. In the first half of the previous year 37.3 thousand tons of live cattle were exported, of this 28.6 thousand tons to the countries of EU, it is about 8% and 38% more than in the first half of 2003. In equivalent of meat during ten months 2004 93 thousand tons of beef (with products and offals) was exported, which is about 26% more

than the year earlier. It is considered, that in the first half of 2005 the export of beef could be higher than the previous year. Because of low demand the national import of beef stayed at a low level for years. There are no forecasted important changes in the near future.

**Table 12.3** Polish foreign trade in equivalent of beef meat (in thousand tons)

Item	2002	2003	2004	2005 P
<b>Total Export</b>	107.8	92.5	117.2	136.0
of which:				
meat, products and offals	71.7	54.8	73.8	70.0
livestock	36.1	37.7	43.4	44.0
<b>Total Import</b>				
of which:				
meat, products and offals	3.7	5.2	3.7	5.0
livestock	3.6	5.2	3.7	5.0
	0.0	0.0	0.0	0.0
<b>Balance</b>	+104.1	+87.3	+113.5	+131.0

*P- prognosis, Source: [22]*

### 12.2.3 Processing of meat

In 2004 the process of industrialization of slaughter was continued. In 2004 meat prepatation production increased by 4%. In large and average companies the smoked meat production was about 5.1% higher than in 2003. The meat dishes production increased, though simultaneously the production of tinned foods was smaller. It is possible to estimate that industrial production of all meat products exceeds 1 million tons. In the first quarter of 2005 a drop in meat products production had place, also in the whole year 2005 production of products from red meat will not reach the level of the previous year and will probably amount to 950-970 thousand tons.



**Table 12.4** Production of Polish meat industry (in thousand tons)

Item	2001	2002	2003	2004	2005 P
Industrial slaughters	894.5	975.6	1210.2	1315.0	1400.0
In which:					
flock:	751.8	835.4	1032.8	1115.0	1180.0
cattle and calves	133.2	135.4	171.7	195.0	215.0
Production of red meat preparations	998.2	956.4	968.7	1005.0	965.0
In which:					
smoked meat	860.1	817.2	801.5	840.0	800.0
tinned goods with hams	47.2	43.4	50.7	45.0	45.0
other meat preparations	90.9	95.8	116.5	120.0	120.0

*P- prognosis IERiGŻ, Source:[22]*

In the fourth quarter of 2004, 3,100 institutions of red meat processing industry in Poland were active, of which 555 were entitled to sell on the EU market. There was not a mass wave of bankruptcy and liquidation of institutions of meat processing, as well as significant reduction of employment, as was expected in the period of integrating with EU.

Investments in meat industry in the year 2004 reached a record level totalling over PLN 1.5 billion, four times higher than in the period 2000-2001. The profitability of the sector was low and financial condition was very difficult also.

## 12.2.4 Consumption of meat

**Table 12.5** Consumption of meat, offals and meat preparations in Polish households (in kilos per capita)

Item	2003	2004	Index of change in %
Raw meat:			
pork	16.80	15.96	95.0
beef	2.28	2.16	94.7
veal	0.36	0.24	66.7
poultry	18.00	18.00	100.0
Other raw meat (fresh, cooled or refrigerated)	0.24	0.24	100.0
<b>ALL RAW MEAT</b>	<b>37.68</b>	<b>36.60</b>	<b>97.1</b>
Offals	1.68	1.68	100.0
Meat preparations and meat products:	26.40	26.76	101.4
High-quality smoked meat	5.16	5.88	114.0
Poultry smoked meat	2.40	2.52	105.0
Other smoked meat	15.24	14.76	96.9
<b>TOTAL</b>	<b>65.76</b>	<b>65.04</b>	<b>98.9</b>

Source: [22]

According to GUS estimations the balance of meat consumption in the year 2004 totalled 71.5 kilos per capita and was about 0.6 kilo smaller, 1% less in comparison with the previous year. Pork consumption decreased from 41.2 to 39.2 kilos, about 5%, and beef from 5.8 to 5.3 kilos, about 10%. Decrease of consumption of red meat has been partly compensated through the consumption of poultry growth. It is expected that in the first half of 2005, because of keeping the high level of prices of meat articles and the deterioration, in the profitable population consumption these products will be lower than in analogous period in the year before. In the second half of the year, and especially in the fourth quarter, under pressure of the growth of production and supply and also lowering the prices of pork, preferred by Polish consumers, the consumption of meat and preparations will probably rise. In effect in whole 2005 consumption of these products will be approximately that

recorded in 2004. The consumption of poultry will increase with stabilization in beef and pork meat consumption [22,29,33].

**Table 12.6** Consumption of meat in Poland in the year 2001 (in kilos per capita)

Countries	Meat				
	General	Beef and veal	Pork	Poultry	Mutton and goat meat
Germany	83.1	10.6	52.4	14.5	1.0
Greece	91.5	22.1	35.2	19.1	12.9
Italy	91.2	22.8	42.5	18.2	1.5
<b>Poland</b>	<b>70.5</b>	<b>6.3</b>	<b>46.8</b>	<b>17.0</b>	<b>0.0</b>
Spain	118.1	14.7	66.5	26.8	6.1

## **12.3** POULTRY AND EGG MARKET

### **12.3.1** Poultry

The year 2004 was a crucial period for the EU-15 and the new 10 members of the EU in functioning the poultry-farming market. Since 1st May 2004 for both sides of the Accession Treaty the ready market has expanded. This was due to the free trade exchange, unrestricted by quotas and customs barriers within the EU. The competition conditions for the poultry-farming companies have become more demanding.

The Polish poultry farming is a significant competitor for the manufacturers from the EU-15. The Polish share in the chicken meat production on the EU market in 2004 is estimated at about 10% [1].

In the year 2004 the poultry meat production in Poland totalled 915 thousand tons. It was 6% more than in the previous year. Three quarters of domestic poultry production consists of chickens, about 23% of turkeys, the remaining part being water poultry. As there is a short-term production cycle, particularly in the case of broiler chickens (about 6 weeks), the level of production changes comparatively quickly, following the market demand, and the valid prices [2].

**Table 12.7** Poultry production in Poland (in thousand tons)

Year	Total poultry production	Of which: farm production
2002	1,134	1,030
2003	1,228	1,123
2004	1,310	1,195
2005P	1,380	1,270

Source: [13]

In the first-half year of 2004 the demand for poultry on the home market was limited. This was due to the low prices of pork. The high prices of fodders also caused the worse profitability of poultry's production. The second half - year 2004, as a result of considerably lower prices of fodders and the abolishment of export duty barriers to the EU, turned out to be more profitable for poultry farming. However, since August 2004 the chances for the export growth have been limited. It was attributable to the appreciation of PLN and closing Russian market for Poland. However, the conditions of import have improved. Almost four times higher import and the growth in domestic production caused the increase in supply of chicken meat to almost 100 thousand tons, or about 13%. The profitability of production in 2004, although significantly reduced over the last months, compared to the favorable period following the accession, remained at the level providing further moderate increase of poultry production [12,21].

In 2005 it is estimated that the rate of production growth will stay on a similar level to 2004. If poultry export to Russia is again allowed, the level of chicken meat export will grow in 2005 to about 140 thousand tons [21].

Poultry overproduction has been observed in the last years. The poultry-farming firms produced 1035 thousand tons of meat in the year 2004, about 7% more than in the previous year. In 2004 the production of poultry products rose to about 160 thousand tons (the production of cured poultry meats increased by 20% and the production of tinned meats by 7.5%).

There are 175 industrial plants entitled to sell on the EU market and 133 small companies not fulfilling the EU standards so they are allowed to sell only on the Polish market [21].

In 2004 live poultry, offals and chicken products' export increased to 129 thousand tons from 108 thousand tons in the year 2003, and foreign-currency incomes to about 284 from about 245 million euros. Imports totalled

89 thousand tons in 2004 and its value reached about 95 million euros and was twice as high as in the previous year. The positive balance of poultry foreign trade turnovers shaped on the level 188 million euros and was about 14 million lower than in the year 2003. The duties and quotas abolishment in a trade exchange within the EU-25 since May 2004 decided the foreign trade results[4].

In 2005 the export of live poultry, meat, offals and chicken products could total 140 thousand tons, which will be over 8% more than in the previous year. However, imports will probably stay on 2003 year level and will total about 90 thousand tons. Domestic turnovers with the EU -25 countries will decide growth in poultry's export and import [21].

**Table 12.8** Data concerning poultry market in Poland (in thousand tons)

Specification	2002	2003	2004	2005F
Domestic production	794	860	915	980
Import	31	24	89	90
Total supply	825	884	1,004	1,070
Export	58	108	129	140
Domestic consumption	767	776	875	930
Of which: - supply to retail chain	693	703	805	861
- other turnovers	28	24	23	22
- self-provide	46	49	47	47

*F- forecast Source: [21]*

Poultry retail prices in Poland rapidly increased after accession to the EU. However the red meat prices rose much faster. Therefore poultry prices declined in comparison with other types of meat. The average Pole consumed in 2004 about 21 kilos of chicken meat, about 6.6% more than in the year 2003. The share of chicken meat in meat, offals, and meat preparations consumption rose from 27% in the year 2003 to 30% in the year 2004.

In 2005 it is estimated that, as a result of expected growth in production, supply as well as the prices will decrease, the chicken meat consumption will rise to about 1.5 kilos per capita, to the level of 22.5 kilos. This growth will be mainly observed in the first half - year 2005. In second half-year 2005 the

pace of poultry growth consumption will decrease because of the expected increasing tendency of pork production and supply [21].

### **12.3.2 Eggs**

Poland is an important producer of hens' eggs – 9<sup>th</sup> place in Europe and 22<sup>nd</sup> in the world. Its production is growing every year. In 2004 totalled 520 thousand tons. During the year 2004 and in the first months of 2005 the Polish egg market was characterized by excessive supply. This was due to production development in a profitable period within the previous two years. Additionally there has been an increase in egg imports since the accession to the EU, especially in the last three months of the year 2004. At present, lower competitiveness of Polish export can be observed. This is caused by a worse relation between the national and union prices, and the unfavourable foreign-currency exchange rate, so there will be a 1% increase in eggs' export in 2005 to about 525 thousand tons [12]

According to expert opinion, the production of eggs products in 2004 showed an increasing tendency. The increase concerned particularly liquid egg products, which are in strong demand by the food industry. The production of frozen egg mass also increased.

About 10% of shell eggs production is processed. In the last year eleven of thirteen Polish eggs processing companies got the authorizations to sell on the common market of the EU [21].

Imports in the year 2004 totalled about 5 thousand tons (67 million pieces) and it was 2.5 times higher than in the year before. The egg export was similar to the year 2003 and totalled about 29 thousand tons (456 million pieces), 5.5% of whole production.

In 2005 the egg and products export should total about 356 million pieces and it will be about 100 million pieces fewer than in 2004. The possibilities to sell on the EU -15 market will be smaller than during last two years, mainly because of the poultry and egg production recovering after the bird influenza epidemic [12].

**Table 12.9** Data concerning egg market in Poland (in thousand tons)

Item	2002	2003	2004	2005F
Production	499	518	520	525
Import	1	2	5	5
Export	12	30	29	22
National consumption	488	490	496	508
of which: - to brood	41	42	42	43
- losses	0	1	0	1
- consumption	447	447	454	464

*F- prognosis Source: [21]*

Egg consumption in Poland totalled in 2004 212 pieces per person, about 1-2% less than in 2003. The level of egg consumption in Poland depends on price, season, and also prices of meat and their products, particularly pork. It indicates that these food products are used alternatively by consumers.

## **12.4 FISH MARKET**

The basic instrument of fishing management in Poland is established annual haul limits expressed in maximum quantity of fishes possible to catch. The fishings of Polish Baltic fleet totalled in the previous year 153.7 thousand tons, in the face of 142.7 thousand tons in 2003. Deep - seafishing also increased by about 8%.

**Table 12.10** Fishing in selected EU countries (thousand tons)

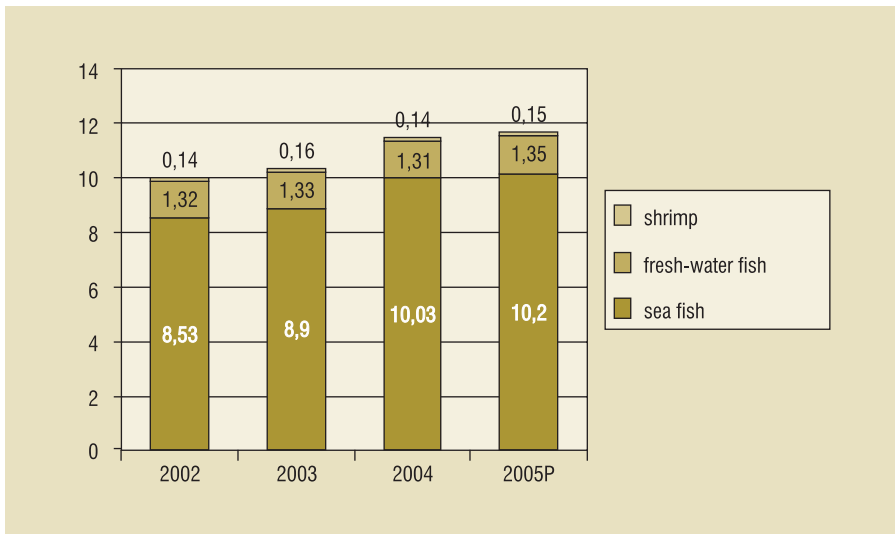
Country	2001	2002	2003
Germany	210.75	224.45	260.67
Greece	94.39	95.64	89.22
Italy	310.40	269.85	283.22
Poland	225.06	222.44	163.26
Spain	1108.87	882.98	840.49

*Source: [26]*

It is estimated that fresh-water fish production in 2004 totalled 48.9 thousand tons, compared with 50 thousand tons in the year 2003 [26].

At the end of 2004, 167 processing companies were entitled to trade fish products in the EU area. The size of total final production of fish processing on land in 2004 was estimated of about 291.5 thousand tons, about 5.3% more than the year earlier. Much higher (about 13%) was the increase of final consumptive production value, which was estimated of about 2.6 bln PLN. The production of exported preparations was enlarged, especially the smoked and tinned fish. In the 2004 the value of sale in the medium and large enterprises increased about 25%. The larger volume of sale, the higher prices, and the processes of concentration were the factors that have influenced this situation.

Poland belongs to the countries with low fish consumption, but balance consumption grew up in 2004 to 11.48 kilos of live weight per capita. The growth of consumption concerned the exclusive sea fish. It is a result of relative cheapening fishes and systematic broadening trade offer. Prognosis for 2005 suggests the enlargement of consumption of both sea fish (about 2%- to level 10.2 kilos per capita) and fresh-water fish (about 3%- to level 1.35 kilos per capita), that is totality to 11.7 kilo per capita, about 2% [26].



**Figure 12.4** Fish consumption in Poland (in kilos per capita)

*P-prognosis, Source: [26]*



**Table 12.11** Foreign trade of fish and fish products (in mln EUR)

Country	2001		2002		2003	
	Import	Export	Import	Export	Import	Export
Germany	2788.32	1144.06	2646.91	1148.13	2350.90	1047.39
Greece	361.86	244.57	414.04	241.74	402.20	282.78
Italy	3118.15	438.29	3129.78	465.12	3160.94	403.50
<b>Poland</b>	<b>415.71</b>	<b>244.74</b>	<b>360.63</b>	<b>250.36</b>	<b>343.57</b>	<b>270.66</b>
Spain	4419.00	2127.75	4294.91	2092.34	4451.50	2040.96

Source: [26]

Foreign trade of fish and fish products showed a significant increase in exports and imports. The exports of fish and fish products in 2004 exceeded 175 thousand tons (262.7 thousand tons in terms of live weight) with a value close to 350 million Euros. To increase the exports it was necessary to expand imports to over 280 thousand tons (479.6 thousand tons in terms of live weight). The positive balance of foreign trade declined from 55.8 to 51.4 million Euros. Poland exports mainly processed fish products, fillets and smoked fish. It imports mainly raw material.

It is expected that trade in 2005 will grow, though more slowly than in 2004, as the prices of exported products are still cheaper than in EU-15 [26].

**Table 12.12** Fish balance sheet in Poland (in thousand tons of live weight)

Item	2002	2003	2004	2005 P
Including sea catches	204.4	160.3	172.7	152.0
<i>Of which:</i> Baltic Sea catches	146.9	142.7	153.7	135.0
Deep-sea	57.5	17.6	19.0	17.0
Fresh-water catches and aquaculture	49.1	50.0	48.9	50.0
Total domestic catches	253.5	210.3	221.6	202.0
Import	374.1	424.5	479.6	521.0
Export	246.1	238.0	262.7	275.0
<i>Including:</i> ship to ship sales	88.2	66.3	58.6	50.0
from land	157.9	171.7	204.1	225.0
Domestic supply for consumption	381.5	396.5	438.5	448.0

P- prognosis, Source: [2]

## 12.5 THE DAIRY MARKET

After the accession to the EU the dairy market underwent considerable improvement, especially through the increase in export profitability and an improvement in financial standing of the dairy industry. At the same time the industry kept adjusting output in line with changing demand for dairy products on both domestic and foreign markets. The products such as: raw milk, powdered milk, whey, sour cream, yoghurts and other milk drinks, cheeses, butter, milk fats, ice-creams and casein are the basic products manufactured by Poland. Direct access to the common market allowed for an expansion of Polish dairy exports to the EU-25, while the sales on the Russian market and other traditional markets were reduced. Such increase was supported with an achievement of the EU veterinary standards and procurement prices of milk lower than in Western Europe. In the EU-25 Poland along with France, Germany and the United Kingdom is one of the major producers of butter (manufacturing over 150 thousand tons of it per year) and along with Italy, Netherlands and again the United Kingdom (producing over 300 thousand tons) is one of the largest producers of cheese [24].

Milk production shows a downward tendency. It amounted to 11,481 million litres and was 0.6% down from the previous year. The reduction in cows was the main reason for the milk decrease and even the increase in the cows' milking capacity was not able to compensate this situation. The average cows' efficiency in Poland rose in 2004 to about 4,083 litres in comparison with 2003 when amounted to 3,969 litres. The average cows' milking capacity totalled 114 l and was considerable higher than the previous 2 years. It was possible thanks to larger fodder reserves, their structure and quality improvement. In 2005 and 2006 there will be a continuous drop in milk production to about 11.7 million l as a result of reduction in the number of milk cows and even the cows' milking capacity (4300 l in 2006) will not be able to compensate this fall [24].

Despite the fall in the milk production the sale of milk in Poland rose by 1.9% in 2004. This was due to the decrease in milk consumption in the farms by 7.8% (about 130 million l). The consumption of milk was about 130 million litres (1.7%) down from 2004 as a result of milk consumption for fodder (by 5%) and for self-delivery of agricultural families (by 8.5%) and totalled in 2004 slightly over 2.7 billion litres (2.8 million tons). As a result the production commodity of milk increased up to 76.3%. The surplus

of production in recent years in comparison with domestic consumption amounted to 9-14% [24].

The directions of trade have changed, as a result of quotation of milk production as well as a visible improvement in milk production profitability after joining the EU. Milk sale for the milk industry rose by 6.3% mainly at the expense of direct sales, which declined from 1,380 million tons to 989 million tons. The whole sale of milk increased up to 8,758 millions tons (9.02 million tons) and slightly exceeded the milk quota granted to Poland [24].

The high dynamism of milk purchase was maintained for the whole year 2004. In the first quarter the increase in purchase totalled 6.2%, in the second and third quarter 4.7-4.9%, and in the fourth over 8.8%. The distance between Poland and EU decreased. They are about 15-20% lower than in Europe. The high dynamism of milk purchase was accompanied by the considerable improvement in the purchase of milk quality. On the average, in the case of Poland, the amount of the first class milk exceeds 90% and in many dairies which have the right to sell milk and their products on the EU exceed 99%.

In 2005-2006 season there will be further growth in sales of milk to the milk industry, at the expense of direct sale and milk consumption in households. It is expected that in 2005 milk purchase will exceed 8.2 billion liters (8.43 million tons) and almost will draw level with a wholesale quota granted to Poland. In 2006 milk purchase will probably exceed 8.6 billion liters (8.85 million tons), so without launching restructuring reserve Poland will have to pay a financial penalty for exceeding milk quotas. The amount of direct sale in the whole sale of milk will probably approach in 2006 the average level of EU-15 and will total 3-3.5% of the whole domestic production. The whole sale of milk in 2005-2006 might amount to 8.8-9.0 billion litres (9.1- 9.25 million tons), so it will be after launching restructuring reserve (416 thousand tons) slightly lower than the milk quota of Poland (9,380 thousand tons). Up to the end of 2006 Poland will probably not pay financial penalties for exceeding milk quota on condition that the restructuring reserve will be launched [24,34].

The number of creameries fulfilling the sanitary requirements in force increased from 215 in September last year to 219 in March 2005. After the accession to EU, as a result of an expansion of Polish dairy exports to the EU-25, there has been a significant improvement in economic-financial indexes of the food processing milk industry. Simultaneously, the rising producers prices

of the milk raw material constrained an improvement in financial standing of the dairy industry.

In recent years there have been changes in the structure of dairy production, especially in powdered milk production. These are attributable to the fact that the demand for fat-free powdered milk is decreasing. This is happening both in domestic and international markets in favour of demand for full-cream powder. In 2004 the production of fat-free powder was scaled down from 135 thousand tons in comparison with over 148 thousand tons the previous year. At the same time the full-cream powder production was increased from 26.8 thousand tons in 2003 to 30.1 thousand tons in 2004. It is believed that above -mentioned tendencies of changes will be held inter alia as a result of growing import for full-creamed milk in powder. The increase in cheeses production from 195.2 thousand tons in 2003 to 220 thousand tons in 2004 is also significant and totalled about 13%. It is due to the increasing domestic demand and as well as the export to the members of the EU. What is more the milk drinks production, including yoghurts, is also on the rise. At the same time in recent years as the milk quality is improving there has been a gradual decrease in casein production. In 2002 about 5.3 thousand tons of casein was produced while in 2003 only 3.4 thousand tons and in 2004 about 100 tons. On the following graph the basic dairy products are presented [24].

In 2005 it is expected that above-mentioned tendencies will continue. First of all, there will be further increase in production of cheeses, especially rennet-ripe cheeses, melted cheeses and others including regional. Additionally, milk drink, especially yoghurt production will be continuously increasing. At the same time cream, butter and condensed milk production will remain at the same level. Only a vestigial amount of casein will be kept. In 2004 the dairy market produced, in the milk equivalent, 7,600 million litres of products, of which 2,050 million litres were exported and 5,550 million litres went on the home market, which is 245 million litres down from the previous year. In Table 12.13 are presented the dairy products balance in terms of milk, including foreign trade turnovers [24].

**Table 12.13** The Polish dairy products balance in terms of milk, including foreign trade turnovers (million litres)

Specification	2001	2002	2003	2004	2005 F
Production	11,538	11,527	11,546	11,478	11,410
Import	541	495	410	495	500
Total stock	12,079	12,022	11,956	11,973	11,910
Consumption	10,239	10,096	10,006	9,353	9,340
Grazing	636	630	600	570	570
Export	1,240	1,240	1,350	2,050	2,000
Total Allocation	12,115	12,022	11,956	11,973	11,910

\* the dairy products in conversion on milk in quantity of used raw material.  
F- forecast Source: GUS data

### 12.5.1 Milk and dairy products consumption

There has been a downward tendency in dairy products consumption in Poland since 1999. In 2003 the balanced consumption of milk, together with the milk allocated for the processed products and without milk processed for a butter totalled 181 litres per capita and was 24 litres (12%) down from 1998. Increased exports and the rise in prices led to a crucial reduction in milk consumption in 2004. According to the initial estimation it levelled at 170 litres per capita, about 6% down from 2003. In 2004, in comparison with the previous year, consumption of milk and its products fell about 3%. This was due to the drop in drinking milk consumption by 4.4%, especially low-fat milk, by 6.6%. Condensed milk, powder milk, yoghurts and cottage cheeses remained at the same level. However, there was increase in ripe cheeses (by 3%), sour cream and cream, milk drinks (by 8.3%). The rise in demand for ripe cheeses was probably caused by smoked meats going up in price [24].

The considerable rise in butter retail prices in the second half of 2003 and in the initial months after the accession to the EU and its price rise in comparison with the other edible fats was the cause for the consumption decrease. It is estimated that the balanced consumption of butter amounted to 4.4 kg per capita and was 6.4% down from 2003. In 2005, as a result of expected reduction in milk production and the high level of dairy products prices, consumption will probably decrease, especially in the country. In the Table 2 milk and its products consumption in the households are presented [24,34].

**Table 12.14** Milk and its products consumption in Polish households (kg per capita)

Items	2001	2002	2003	2004
Milk (l)	61.32	58.68	57.60	55.08
Of which:				
- whole milk	31.08	30.12	30.12	28.40
- skim-milk (below 3,2%)	30.24	28.56	27.48	25.68
Condensed milk and powdered milk (kg)	0.48	0.48	0.48	0.48
Yoghurts (kg)	3.84	3.96	4.20	4.20
Cheese (kg)	10.08	10.08	10.32	10.44
Of which:				
- cottage cheeses	6.36	6.24	6.36	6.36
- ripe and melted cheeses	3.72	3.84	3.96	4.08
Cream and sour cream (l)	5.40	5.28	5.04	5.20
Milk drinks (l)	2.88	3.00	2.88	3.12
Butter (kg)	3.96	4.08	4.20	3.96

Source: GUS data and IERiGŻ estimation

### 12.5.2 Foreign trade of milk and its products

The export of the dairy products from Poland in 2004 rose to a recorded level of 2050 million litres and was 52% up from the previous year. The European integration caused this growth of exports. In the period of the first fourth months the year 2004 the exports totalled 470 million litres for about 122.8 million €. Duty-free quotas to the EU in the pre-accession period also contributed to the export development. These quotas were entirely used. The high prices on the world market and the domestic currency depreciation in comparison with the euro was also beneficial for the export development. The veterinary condition improvement in production and milk processing was also a crucial factor for export success.

In 2005 the exports will be kept at the high level, which shows a great demand for Polish products in the EU as well as high prices on the world market. The limited demand on the domestic market will also influence the exports.

In the structure of commodity export, semi-finished products and products dominate further production. Milk and powdered whey, milk and sour cream

for further processing and casein made up about 50% of exports. Part of raw materials is also exported for processing.

In 2004 there were significant changes of the export geographical directions. Free access to the EU market caused the EU countries to become the main importers of Polish dairy products. Poland also had markets in Third World countries. In the June - December 2004 season considerable export of milk and sour cream for processing, yoghurts and milk drinks was noticed. On the German market there has been a great demand for Polish raw material (937,6 thousand tons). To the Netherlands 4.6 thousand tons of milk and sour cream were exported. The main ready market for yoghurts was the EU, to the EU-15- 1409 thousand tons and EU-10 – 13.7 thousand tons. On the east markets 13.1 thousand tons yoghurts and milk drinks were sold.

The development of Polish dairy market in future will be determined by competitive capacity, for offering high quality products at competitive prices or ability for offering unique products (e.g. ecological) for niche markets [24].

## **12.6 CEREALS' MARKET**

### **12.6.1 General profile of the Polish cereals market**

Cereal crops in the year 2004 totalled near 29 million tons, 24% more than in the previous year. Wheat-rye, maize and rye production have increased the most, about 28-33% and there has been a 18-24% increase in oats production, mixtures cereal, wheat and barley.

The Cereals market in Poland is characterized by [33]:

1. a fall of the cereals' deliveries to purchase, especially rye and maize
2. lowering the prices of purchase of grain basic cereals and growth of the maize prices
3. large supply on freight exchanges and low interest of their purchase
4. low level of interventionist purchases in Poland on stores of EU

### **12.6.2 Cereal production**

In the year 2004 basic cereal crops with mixtures totalled 26.5 million tons and were about 5 million tons higher than in 2003. This growth has been caused by:

1. increase of the sowing surface
2. growth of crops
3. motivating the farmers to enlargement of the cereal tillage under influence of: the high and growing prices, the aspiration for access to supplementary direct extra payments.

In the season 2004/05 a reduction of stores state reached 72%, accessible supplies were estimated at 29.7 million tons, about 14.5% higher than in previous season.

### **12.6.3 Cereal processing industry and national cereal waste**

In the year 2004 it was possible to observe, in large and average enterprises, a decrease in cereal grinding. Industrial grinding hug 2/3 cereals steered to cereals processing industry on food aims and in the year 2004 totalled 3.6 million tons. The production of flour, wheaten groats and manna-croups has decreased, however the production of pastas, barley and buckwheat groats has risen [34].

The high and rapidly growing prices have caused higher than intentional, 6%, fall of their fodder waste. Limitation of the cereal waste on fodder is conductive to reducing swine production, growth of volumetric fodder production, the cattle stock reduction.

Absorbency of the national cereals' market in the season 2004/05 is estimated to about 25.9 million tons, which means a 1% fall in relation to the previous season.

Consumption of the cereals and cereals products per capita in the season 2003/04 amounted to about 120 kilos/year in equivalent of flour or 150 kilo in grain. In 2004 a further fall of consumption of bread as well as products of the cereals grinding (flour and groats), however the consumption of pastas, cakes, bright and rye bread increased [33].



**Table 12.15** Polish consumption of cereal products in kilo per capita monthly according to investigations of home budgets

Cereal products	2001	2003	First half of the year	
			2003	2004
Bread	6.55	6.11	6.09	6.01
Of this:wheaten	1.07	1.01	1.01	1.04
- rye	0.19	0.21	0.21	0.25
- mixed	5.29	4.89	4.87	4.72
Flour	1.16	1.12	1.10	1.06
Groats and petals	0.27	0.28	0.29	0.27
Pasta	0.34	0.36	0.36	0.37
Cakes	0.53	0.56	0.56	0.59
Total	8.85	8.43	8.40	8.30

Source: [29]

#### 12.6.4 Foreign trade

Integration with the EU contributed to liveliness in export of cereal products. The amount of exported goods totaled in the first half of the year 2004 over 80 thousand tons, growth of about 37%, however the value reached 130 million Euros, growth about 66%, about 8% value of food industry export. The export of bread developed the most quickly, less so for cakes and grains differently prepared. The export of flours, cereal groats and petals has reduced to about 2 thousand tons [8].

**Table 12.16** The export and import of milling products in the first half of the year 2003 and 2004

Specification	Thousand tons		Million euros	
	2003	2004	2003	2004
<b>Export</b>				
Flour	8.1	1.0	1.5	0.02
Groats, manna - croups	1.8	0.7	0	0.5
Grain differently prepared	9.8	11.1	15.9	20.5
Pastas and macaronic cake	3.0	3.2	8.4	7.4
Bread	20.3	44.4	25.4	65.3
Confectioner's bread and cakes	17.0	22.5	26.5	35.5
<b>Total</b>	<b>60.0</b>	<b>82.9</b>	<b>77.7</b>	<b>129.2</b>
<b>Import</b>				
Flour	10.0	12.1	3.4	4.0
Groats, manna - croups	16.9	13.2	3.5	3.7
Grain differently prepared	9.8	9.1	3.9	4.9
Pastas and macaronic cake	8.6	10.3	6.7	8.0
Bread	8.4	9.5	11.5	16.4
Confectioner's bread and cakes	3.2	6.9	4.7	10.6
<b>Total</b>	<b>56.9</b>	<b>61.1</b>	<b>33.7</b>	<b>47.6</b>

Source:[29]

## 12.7 MARKET OF FRUIT AND VEGETABLES

### 12.7.1 General profile of fruit and vegetables market

In Poland about 350 thousand farms produce fruit and vegetables, for 200 thousand of them it is the main source of earnings. The food processing industry develops about 60% of the fruits and 30% of the gathered vegetables. In the fruit and vegetable processing industry 400-500 thousand persons are employed and annually the earnings are 2.5-3.0 billion PLN, from which the income from exports totalled about 700 billion PLN, about 17% of the value of the agricultural - food products exports [32].

The market of the fruit and vegetable products is characterized by [12]:

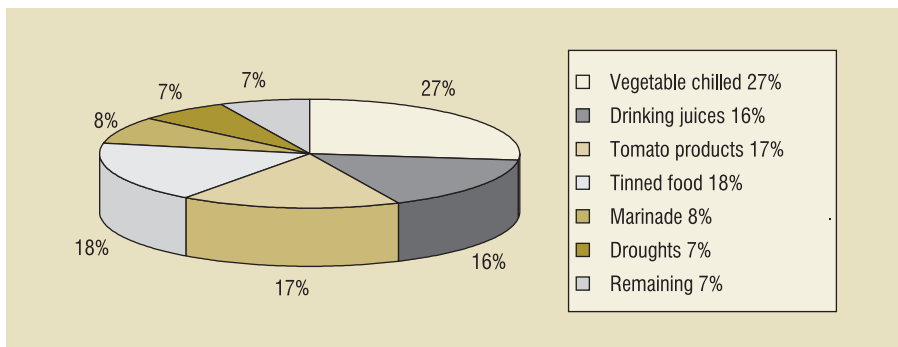
1. slowing of the pace of consumption growth
2. dynamic growth of production and exports

3. stabilization in imports of majority products
4. low pace of growth of product prices
5. the progressive growth of production concentration
6. improvement of functioning in the fruit and vegetables processing industry.

### 12.7.2 Fruit

Crops of all fruit (excepting gooseberry) in 2004 were about 3.6% higher than in 2003 and totalled 3,422 thousand tons. Sufficient quantity of rain-fall as well as coming the new apple, cherry orchards and black currants plantation contributed to this in the fruit-bearing period. The growth of crops caused the fall of prices of majority fruit.

In the season 2004/05 the fruit processing industry brought into cultivation 2.5 million tons of fruit compared with 2.4 million tons in the previous season, including: 1.8 million tons of apples, 47 thousand tons of raspberries, 90-95 thousand tons of black currants, 160 thousand tons of cherries, 80 thousand tons of plums, 12 thousand tons of pears, 12 thousand tons of cherry [25]



**Figure 12.5** Structure of the sold production of fruit products.

Source: [25]

In the season 2004/05 incomes from export of fruit and their products totalled 608 million Euros, about 15% less than in the previous season. There will be lower incomes from export of soft fruit and their semi-products: juices condensed and chilled fruits, concentrate of the apple juice, the sale of apples and products of higher processing degree will increase.

**Table 12.17** Export of fruit and their products (in million Euros)

Specification	2002	2003	2004	2002/03	2003/04	2004/05
Apple	53.4	60.8	70.0	62.3	71.0	74.0
Strawberry	9.2	15.0	10.0	11.8	10.0	11.0
Black currants	7.2	6.4	2.0	5.0	6.4	2.0
Red currants and gooseberry	1.0	1.9	0.5	1.8	0.8	0.6
Raspberry	17.7	23.2	12.5	10.3	23.0	13.0
Cherries	4.7	7.7	8.5	4.6	7.5	8.5
Plums	1.4	3.6	2.5	1.4	3.6	2.5
South fruits	11.2	8.5	10.0	10.0	11.9	11.0
Remaining fruit	8.7	6.8	6.0	8.3	7.2	7.4
<b>Total fruit</b>	<b>114.0</b>	<b>133.9</b>	<b>122.0</b>	<b>115.3</b>	<b>141.4</b>	<b>130.0</b>
Condensed juices and drinking, of this:	205.3	246.3	230.0	222.7	257.9	245.0
- apple-juice	136.7	172.8	165.0	152.5	179.7	170.0
Chilled fruits	243.5	257.4	200.0	257.9	260.2	170.0
Droughts	7.2	8.3	7.5	7.3	8.1	8.0
The jams, marmalade, pastes	31.5	31.5	34.5	30.8	31.9	34.0
Tinned products	15.5	16.3	19.0	14.2	18.7	20.0
Fruit temporarily preserved	1.0	0.7	1.0	0.9	0.7	1.0
<b>Total products</b>	<b>504.0</b>	<b>560.5</b>	<b>492</b>	<b>533.8</b>	<b>577.5</b>	<b>478.0</b>

Source: [25]

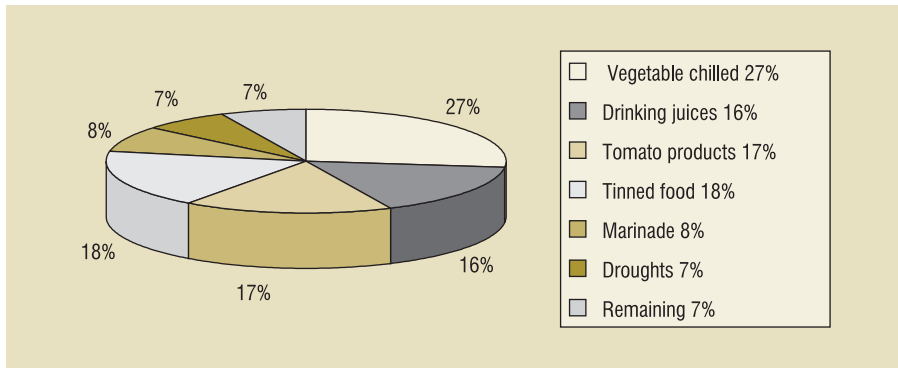
Factors determining export are[25]:

1. lower price of materials and production costs in Poland than in different countries of EU,
2. the rapidly progressive improvement of efficiency of fruit-vegetable trade,
3. the slow “shrinking” of the raw material base in countries of the “old” EU.

### 12.7.3 Vegetable

The land vegetable crops in the year 2004 totalled 4,759 thousand tons and were about 7.7% higher than in the previous year, however the protected vegetables' crops fell about 11% and totalled 630 thousand tons, mainly due to the fall of profitability of production tomatoes and cucumbers.

In the season 2004/05 the vegetable processing industry brought into cultivation over 1.1 million tons in comparison with 1.05 million tons in the previous season, including: 210 thousand tons of carrots, 125 thousand tons of onions, 60 thousand tons of beetroots, 110 thousand tons of cauliflowers, 77 thousand tons of cucumbers, and 60 thousand tons of string bean and green peas[25].



**Figure 12.6** Structure of the production of vegetable production.

*Source: [25]*

In the season 2004/05 incomes from exports of market gardening totalled 297 million Euros, rising about 7% in comparison with the previous season. Fresh vegetable exports enlarged over 10%, incomes from chilled vegetable exports rose about 7% and reached level 135 million Euros [25].

**Table 12.18** Vegetables and their products export (in million Euros)

Specification	2002	2003	2004	2002/03	2003/04	2004/05
Onion	19.1	27.9	33.0	20.4	36.3	32.0
White and red cabbage	2.7	7.7	3.4	8.2	2.7	5.0
Cucumbers	5.4	5.0	6.1	5.8	5.7	7.5
Carrot	1.0	1.6	2.0	1.2	1.6	1.8
Cauliflowers	1.8	2.7	3.4	1.9	2.9	3.5
Tomatoes	9.2	22.1	29.0	9.9	22.7	27.5
Remaining	13.3	18.1	18.1	14.6	20.9	19.7
<b>Total vegetable</b>	<b>52.5</b>	<b>85.1</b>	<b>95.0</b>	<b>62.0</b>	<b>92.8</b>	<b>97.0</b>
Mushroom	50.6	74.1	82.0	61.9	89.0	95.0
Chilled fruits	101.2	119.8	126.0	107.9	126.6	135.0
Chilled prepared products	0.9	1.3	2.0	1.0	1.8	2.0
Droughts	18.7	19.0	21.0	18.3	20.3	22.5
Marinade, in this:	14.3	15.2	16.0	15.3	15.4	16.0
-cucumbers pickled	7.7	8.1	7.5	8.0	8.0	8.0
Sauerkraut cabbage	3.0	4.5	4.2	4.5	4.0	4.5
Tinned food	8.6	8.7	11.3	8.9	10.8	12.5
Vegetable temporarily preserved	1.3	0.8	1.0	0.6	0.8	1.0
Pastes and paste (together from ketchup)	2.6	3.4	5.5	2.4	5.1	6.5
<b>Total products</b>	<b>150.6</b>	<b>172.7</b>	<b>187.0</b>	<b>158.9</b>	<b>184.8</b>	<b>200.0</b>
<b>Products from mushrooms</b>	<b>54.0</b>	<b>50.0</b>	<b>51.0</b>	<b>49.7</b>	<b>52.2</b>	<b>57.0</b>

Source: [25]

Integration with the EU did not alter the conditions of fruit and fresh sale and processed vegetables to the EU-15 in a significant way. Prices in Poland are usually lower than in EU-15. This unfortunately does not contribute to growth of fruit and vegetables consumption in Poland (which is a country with a lower consumption of fruit and their products). Poles consume an average of 55 kilos of fruit and 111 kilos of vegetables annually per capita. In the first half of the year 2004, in comparison with the year 2003, the fruit from trees consumption reduced about 42.1%, citrus fruit about 12.5%, bananas about 5.6%, apples about 2.8%, and only berry fruit consumption rose about 35.3%. The situation on vegetables and their products' market, in the same

period was: lettuce consumption increased about 25%, cauliflowers about 11.1%, cabbage about 6.3%, tomatoes about 4.0%, beetroots about 4.0%, and carrots about 1.8%. Only cucumbers consumption reduced about 24% and onions about 2.2% [3].

## **12.8** THE MARKET OF ALCOHOL-FREE AND ALCOHOLIC DRINKS

### **12.8.1** Juice and alcohol-free drinks

The structure of fruit and vegetable juice consumption showed continuous changes in previous years. In the years 1998-2004 the mixed juices consumption rose the most quickly, especially carrot-fruit. Congeneric juices (both from citrus and national fruit) consumption stayed at an unchanged level. The congeneric juices vegetable consumption, mainly tomato, is also stable. An average Pole drank in the last year about 19 litres of juices, of which: 8 litres of juices mixed fruit and fruit-vegetable, 4 litres of orange juice, 3 litres of apple juice, 1 litre of grapefruit juice, and 1 litre of tomato juice.

**Table 12.19** Polish consumption of juice and fruit, vegetable drinks and other alcohol-free drinks [litre per capita]

<b>Products</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
Juices totality	17.3	16.8	17.7	19.0
Fruit juices	12.5	11.5	11.5	12.0
- from citrus fruit	5.6	5.2	4.9	5.0
- congeneric from remaining fruit	5.5	5.0	5.0	5.0
- mixed juices	1.4	1.3	1.6	2.0
Vegetable juices	4.8	5.3	6.2	7.0
- congeneric	0.8	0.8	1.0	1.0
Mixed vegetable and vegetable-fruit juices	4.0	4.5	5.2	6.0
Fruit and fruit-vegetable drinks	9.6	9.9	13.6	14.0
Mineral waters	34.0	40.7	55.2	57.0
Remaining alcohol-free drinks	47.8	48.4	61.4	62.0

Source: [16]

In the next years there could be noticed an increased tendency in consumption of mixed juices (mainly two and multiple fruit juices), juices and nectars with addition of vegetable extracts, peppermint juices, vitamin enriched and also fruit-milk juices. Low consumption congeneric juices will stay unchanged. Fruit-vegetable drinks, bracing drinks and mineral waters are directly competitive products for juices. In the last years consumption of these products rose at a higher pace than juices consumption.

In Poland the exports of juices totalled about 5% and imports about 1%. Exports show dynamically increasing tendencies. In 1998-2004 the value of exports rose five-times and amounted to 20 million Euros in the year 2004. Mainly, Poland exports orange and mixed (carrot-fruit) juices.

The market of drinking juices is characterized by [16]:

1. systematic increase tendency in production
2. growing export both to countries of EU-25 and to third world countries
3. increasing consumption on national market in mixed juices
4. stable imports at low level
5. improvement of efficiency of processing industry and quickly adapting processes to conditions functioning on EU markets
6. high competitiveness consumption juices of other alcohol-free drinks (fruit-vegetable drinks, bracing drinks and mineral water).

**Table 12.20** The financial coefficients of alcohol-free and alcoholic drinks trade

The trades	Net profitability in %		Financial liquidity		The long-term debt		Participation of profitable firms in turns in %	
	2003	2004	2003	2004	2003	2004	2003	2004
Juices production	3.38	1.80	1.08	1.07	2.05	1.76	84.3	68.3
Different alcohol-free drinks production	4.60	7.02	1.21	1.14	1.17	2.66	94.8	85.3
Spirit articles production	1.99	16.38	1.48	1.63	0.64	1.33	56.0	65.6
Beer and malt production	6.93	8.07	0.76	0.85	2.03	2.05	68.2	76.7
Vine production	0.01	4.75	1.01	0.95	1.20	1.51	75.2	67.6

Source: [18]



## **12.8.2 Alcoholic drinks**

### ***Spirit industry***

The Polish spirit industry occupies a strong position on world market. The spirit industry characterizes the high quality of offered products as well as a high technological level. In first half of 2004 the pace of growth totalled about 20%. At present spirit sector is in a safer financial situation, net profitability totalled in first half of the year 2004 16.4%. The most well-known Polish marks are: Wyborowa, Żubrówka, Żytnia [1].

### ***Beer industry***

The beer market in Poland occupies 10th place on world and 5th in Europe (after Germany, Great Britain, Russia and Spain). Annual consumption rose during 12 years from 30 to 74 litres per capita, about 130%. On Polish market 3 categories predominate of beers: regular 72%, strong 25% and specialist 3%. Men answer for 85% of whole beer consumption. On the Polish market we have 4 main breweries: Piwowarska Campaign, Grupa Żywiec / Heineken, Browar Belgia and Carlsberg - Okocim [6].

## **12.9 POTATO MARKET**

### **12.9.1 Potato production in Poland**

Potato crops in Poland in 2004 were 14.0 million tons and were 1.9% higher than in 2003, despite the reduction of the area cultivated with potatoes by 6.9%. Since the beginning of the nineties the potato area has declined by over 1 million ha. In 2005, it will be reduced by 5% again, due to the fact that the production in the whole country is still larger than the demand and consumption needs. In prospect of several years, the area cultivated with potatoes in Poland will be gradually reduced but at a decreasing rate [28].

**Table 12.21** Potato crops in selected EU countries

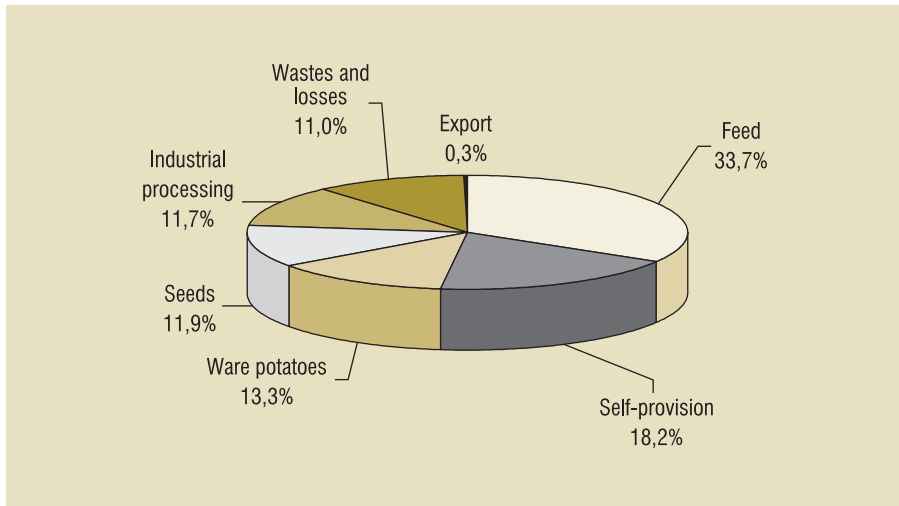
Country	2001	2002	2003	2004 <sup>1</sup>
Belgium	2564	2909	2522	3028
France	6050	6877	6348	6400
Spain	2992	3099	3790	1852
The Netherlands	7015	7363	6469	7262
Germany	11503	11114	9916	12300
Poland	19379	15524	13731	13999
The United Kingdom	6649	6966	5918	6300

<sup>1</sup> estimation, Source: [28]

### 12.9.2 Demand for potatoes

In the 2004/2005 season the potato turnover reached a level of 3.45 million tons (decreased by 0.2 million tons compared to the previous year). There has been also a significant drop in potato processing for starch. The use of potatoes in French fries and crisp production has increased. On the other hand, potato export has decreased; the potato sales for direct consumption is expected to drop also.

In the current season, potato use in agriculture has increased. This particularly refers to potatoes used as animal fodder, due to the expected slight change in the level of self-sustaining agricultural families in comparison with the previous season, which would amount to about 2.55 million tons. In the upcoming season, due probably to the lower potato crops, their use for fodder might decline by as much as 0.8-1.0 million tons. However, despite the long-term downward trend, the consumption of potatoes in Poland is still high in comparison with the EU-25. Among these 25 countries Poland occupies second position (after Latvia) in potato consumption per capita. The Polish model of potato consumption, compared to Western European standards, can still be characterized by the low consumption of potato products and the high level of self-sustenance in this respect. [28].



**Figure 12.7** Use of potato in Poland

Source: [28]

### 12.9.3 Potato industrial processing

In autumn 2004, all potato-processing plants were purchasing potatoes. They purchased altogether about 880 thousand tons of potatoes, of which 760 thousand tons were starch potatoes and 120 thousand tons for dried potato products. In total, 2004/2005 potato purchase by industry amounted to 890 thousand tons, which covered almost 6.4% of the crop [28].

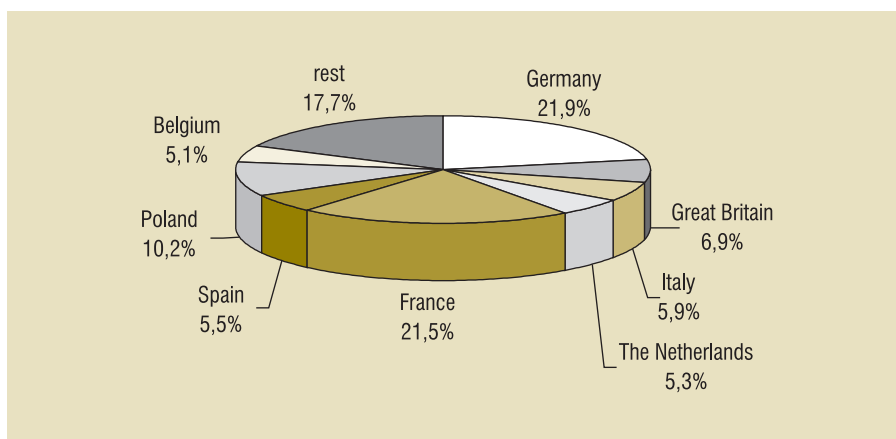
### 12.9.4 Potatoes and their products: foreign trade

In the first half of 2005, the income from the export of fresh potatoes and their products is expected to be about 5 million euro higher than in the first half of 2004, which was 57 million euro. The value of exports in this period will amount to over 46 million euro in comparison with 37.3 million euro in the first half of 2004. In the next season, Russia and other Middle-East Countries will be still the biggest market for Polish potatoes and the new members of the EU, which were already the importers of Polish potatoes before the accession to the EU. These are: Hungary, Lithuania, Latvia, The Czech Republic and Slovenia [28].

## 12.10 SUGAR MARKET

### 12.10.1 Sugar Industry in Poland

In 2004 the number of sugar-beet cultivators in Poland was about 77.9 thousand and an average plantation had an area of 3.75 hectares. In comparison, the EU-15 had about 224 thousand sugar beet cultivators and the area of average plantation was 7.26 hectares [21, 34].



**Figure 12.8** Percentage of EU sugar production per country in 2004/2005

Source:[21]

### 12.10.2 Production of sugar

In Poland the sugar production (in terms of white sugar) in 2004/2005 is estimated at 1,800 thousand tons, which is about 96 thousand tons less than in the previous season. This production quantity was achieved by processing about 12.6 million tons of sugar-beet. The content of sugar in altered material reached 17.67%, while in 2003/04 it was 18.00% and on average 16.95% in the five previous years. Beetroot crops reached the level of 410 dt / h. The area cultivated with beetroot was by 9.3% lower than the average of the last five-year period. The quota A which had been negotiated before joining the European Union amounted to 1,580 thousand tons, while quota B was 91.9 thousand tons. The production in the current season is about 130 thousand tons higher. This sugar will have to be exported by 31 December 2005 [21,34].

**Table 12.22** Raw material base and production quantity of sugar industry in Poland

Specification	1999-2003	2003	2004 (preliminary data)
Area of sugar-beet tillage (thousand ha)	322	286	292
Sugar-beet crops (dt/hectare)	389	410	410
Sugar-beet harvest (mln t)	12.3	10.9	12.0
Content of sugar in beetroots (%)	16.95	18.00	17.67
Efficiency of sugar from beetroots (%)	14.83	16.08	15.80
Production of sugar in season (thousand t)	1864	1946	1850
Production of sugar per hectare (t)	5.84	6.80	6.17
Beetroot use in 1 t of sugar (t)	6.74	6.22	6.37

Source: [3]

### 12.10.3 Foreign trade

During the period 1 July 2003 to 30 June 2004, the country exported 393.5 thousand tons of sugar, which was about 3.5% less than the year before. In the same period of time, imports decreased by about 47% to 45 thousand tons. In season 2004/2005 the production of sugar exceeded the production quotas by about 330 thousand tons. Therefore, in season 2004/2005 exports will rise about 15% up to 450 thousand tons, while imports will stay on the present level and amount to 45 thousand tons.

## 12.11 CONCLUSION

The year 2004 will join the history of Polish agriculture as a period of considerable improvement in profitability of agricultural production. This situation took place not only because of the first direct payments received by Polish farmers, but as the result of increase in prices of basic agricultural products. In the following years the conditions of agricultural development will be more favorable. Not only will the amount of direct payments increase every next year (until the year 2013), but also the prices of agricultural products will increase also. This rise in food prices should not affect the consumption

due to the fact that at the same time, the EU accession will result in higher living standards of Polish society. Additionally, Polish farmers are expecting growing demand for Polish food on foreign markets [21].

In general, Polish food industry of 2004 can be characterized by the following events [21]:

1. In sections such as: poultry slaughter, production of chilled fish, chilled fruit and vegetables, vegetable marinades, margarines, cream, milk, flour, groats, pastas and cigarettes, the production rate was higher than in the first months of 2004.
2. Rate of chocolate production, vodkas, alcohol-free drinks, fruit and vegetable products, milk drinks, fodders stayed on high level.
3. Production of fresh bread, bakery products as well as coffee and tea processing was sufficiently stable.
4. The slowdown of the production growth rate in dairy sector and in meat industry.
5. In production of fish products, animal fats, beer, wine drinks and wines as well as the juices and fruit-vegetable drinks the decline in dynamic was observed.

**WEAKNESSES:**

- Small area of farms, production dispersion
- Poor farmers' knowledge about new technologies, marketing and possibilities connected with Polish accession to EU
- Difficulties in finding foreign markets outside the EU
- Creation of trade barriers by third countries
- Frequently changing legislation (especially taxes)
- Weak infrastructure
- Fluctuation in exchange rates (PLN to EUR).

**STRENGTHS:**

- Opening EU market for Polish agri-food products
- Custom duties abolition in trade with the EU Countries.
- High dynamic rate in production and export (meat, milk, cereals, potatoes)
- High competitiveness of products caused by low prices and one of the lowest labour costs in the EU.

- Extra direct payments. Increase in profitability in frames of production quotas
- Conventional agriculture may constitute basis for organic food production
- Increase in foreign investment activity on Polish market.

**CHALLENGES:**

- Creating vertical and horizontal co-operatives among producers, processing companies and traders
- Increase in consumer knowledge
- Appropriate use of financial support (PHARE, SAPARD)
- Increase in competitiveness, offering traditional Polish products
- Research & Development of new products.

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