

Dairy Production in the Czech Republic 2005

Milk purchases

The dairy processing industry purchased and processed 2.476 billion liters of milk during 2005, according to statistics from a report of the Czech Ministry of Agriculture. In comparison with the previous year, that represents a slight decline of 19.5 million liters (i.e., by 0.8%). Reduced deliveries in the September-December period influenced the decline in milk purchases. In the January-August period, milk purchases had been higher than those for that same period of 2004 by 13.5 mil. liters (index 100.8).

Average butterfat content decreased year on year by 0.1% to 3.90%. Average protein content slightly declined year on year by 0.02% to 3.38%. Of the total volume of milk purchased, 98.7% was categorized in the "I" quality classification and higher.

Export of raw milk in tankers reached 142.8 mil. kg. These exports were predominantly to Germany, but in part also to Italy. Through the course of 2005, meanwhile, a total of 63.2 mil. kg of raw milk were imported in tankers, mainly from Poland and partially also from Slovakia.

Prices

The average procurement price for milk during 2005 increased from the previous year's CZK 8.06/liter by CZK 0.22 to CZK 8.28.

The greatest increase in the milk procurement price since the country's accession to the European Union in May 2004 occurred about one year later, in March 2005, when it reached CZK 8.44/liter. The price of milk in the later months of the year decreased to CZK 8.17/liter in August and by December had risen back to just CZK 8.18/liter.

Table 1: Price development for selected dairy products (CZK/l or kg)

Product	2004	2005	Change	index 2005/2004
Half-fat UHT milk, 1-liter carton	11.23	10.17	-1.06	96.6
Skim milk UHT, 1-liter carton	10.44	9.95	-0.49	95.3
Half-fat milk, 1-liter pouch	9.85	9.99	0.14	101.4
Half-fat fresh pasteurized milk, 1-liter carton	10.53	10.68	0.15	101.5
Natural yogurt up to 4.5% fat, 150 g cup (per kg)	32.19	x	x	x
Yogurt flavored creamy, 150 g (per kg)	39.77	x	x	x
Yogurt flavored no- and low-fat, 125 g (per kg)	x	x	x	x
Fresh butter (16% moisture), 250 g foil-wrapped (per kg)	96.02	69.05	-6.97	92.7
Soft quark (25% dry matter), 250 g foil-wrapped (per kg)	45.00	48.65	-3.35	92.6
Edam cheese, 30% FDM (per kg)	94.48	86.95	-7.53	92.0
Edam cheese, 45% FDM (per kg)	93.47	91.85	-1.62	98.2

Even as 2005's average purchase price for milk increased year on year by CZK 0.22 /liter (+2.7%), the prices of consumer dairy products sharply declined. In comparison with the same period in 2004, retail prices in December 2005 slipped for fluid UHT milk by 3.4%, for quark by 7.4%, for butter by 7.3% and for 30% FDM block Edam cheese by 8%.

The prices of other products remained steady, and only minor products sold in very small volumes managed slightly to increase.

Fluid milk production

Production of fluid milk sharply increased by 14.1% from 499.12 million liters in 2004 to 569.32 million liters last year.

Table 2: Fluid milk production, by process

Fluid milk	Production ('000 liters)		Share in %		index 2005/2004
	2004	2005	2004	2005	
Total fluid milk	499,120	569,323	100.0	100.0	114.1
of which:	144,074	147,818	28.9	26.0	102.6
fresh pasteurized					
UHT pasteurized	355,046	421,505	71.1	74.0	118.7

Table 3: Fluid milk production, by butterfat content

Fluid milk	Production ('000 liters)		Share in %		index 2005/2004
	2004	2005	2004	2005	
Skim/low-fat	60,296	70,610	12.1	12.4	117.1
Half-fat	415,013	460,699	83.1	80.9	111.0
Whole	23,811	38,014	4.8	6.7	159.6
Total	499,120	569,323	100.0	100.0	114.1

In a year-on-year comparison, the share of whole fluid milk increased from 4.8% to 6.7%. Production of skim and low-fat milks rose by 0.3% to 12.4%. The proportion of half-fat milk declined year on year, but it continued to be the dominant choice of consumers, as its share remained in excess of 80% of total fluid milk production.

Table 4: Fluid milk production, by packaging type

Fluid milk	Production ('000 liters)		Share in %		index 2005/2004
	2004	2005	2004	2005	
UHT pasteurized	355,046	421,509	71.1	74.0	118.7
Fresh pasteurized	53,085	51,704	10.6	9.1	97.4
Other	90,989	96,110	18.3	16.9	105.6
Total	499,120	569,323	100.0	100.0	114.1

There was a sharp 2.9% increase in production of UHT pasteurized milk in cartons to 74% of the total. This came at the expense of fresh pasteurized milk in cartons and especially of milk filled into other containers, whose share declined by 1.4 percentage points to 16.9%.

Table 5: Production of creams, including cultured creams

Product	Production ('000 liters)		Share in %		index 2005/2004
	2004	2005	2004	2005	
Creams, including cultured	49,794	53,761	100.0	100.0	108.0
of which, sour cream	13,816	14,351	27.7	26.7	103.9
with min. 30% fat content	24,977	27,617	50.2	51.4	110.6

Total production of creams, including sour cream, increased during 2005 by 8% relative to 2004 to 53.76 million liters. The output of sour cream rose by 3.9% and that of cream with a minimum of 30% fat content by 10.6%.

According to Czech Statistical Office figures, total exports of products in category CN 0401 – milk and non-condensed unsweetened creams grew from some 90,000 tons in 2004 to more than 274,000 tons in 2005. This resulted from the increase in exports of raw milk, sweet creams and fluid milk. The corresponding imports in this group of products reached approximately 110,800 tons.

Table 6: Production of yogurts

Product	Production in tons		Share in %		index 2005/2004
	2004	2005	2004	2005	
Total yogurts	91,871	100,997	100.0	100	109.9
of which: flavored	65,474	74,460	71.3	73.7	113.7
low-fat up to 0.5%	12,124	11,142	13.2	11.0	91.9

Yogurt production increased by 9.9% from 91,871 tons in 2004 to 100,997 tons last year. The proportion of flavored yogurts grew from 71.3% to 73.7%. The share of low-fat yogurts decreased year on year by 2.2 percentage points to 11%.

Among the cultured fluid products, the group of other cultured products (excluding buttermilk) showed a 9.2% increase in production to 27.55 million liters. The share of flavored products within this group dropped from 39% to 38.2%.

Imports of products in group CN 0403 (yogurt, kefir, buttermilk and others) increased from 29,650 tons in 2004 to 35,403 tons (+32.8%). There was a rise also in the volume of exports in this group of products, as these grew year on year from 15,587 tons to 28,067 tons (+78.9%).

Butter production

Total butter production reached 54,104 tons in 2005, according to the Ministry of Agriculture's 6-12 statistical report, which includes production and the use of all types of butter, including butter spreads and butter with vegetable oil. The total production represents a drop of 8.8%, or by 5,248 tons, in comparison with 2004.

Table 7: Butter exports, production and inventories

Butter	Production in tons		Change	index 2005/2004
	2004	2005		
Beginning inventory, 1 Jan.	17,621	2,206	444	125.2
Production	59,352	54,104	-5,248	91.2
Domestic market sales	41,270	44,523	3,253	108.0
Exports	13,486	7,092	6,394	52.6
Ending inventory, 31 Dec.	2,206	1,828	-378	82.9

The sharp decline in butter production was influenced mainly by the reduced fat content in raw milk procured (by more than 3,000 tons) and the residual butterfat was incorporated into other dairy products, notably into fluid milk for consumption, creams, yogurts and other cultured products. Reduced butter production also influenced the sharp decline in exports of butter, which declined year on year by nearly one-half to 7,092 tons (index 52.6).

Table 8: Butter production, by type

Butter type	Production in tons		Change	index 2005/2004
	2004	2005		
Fresh	29,968	29,306	-62	99.8
Other/blocks	11,620	6,299	5,321	54.2
Butter spreads	8,396	10,172	1,776	121.2

Fresh butter production hovered in 2005 at approximately the level of the previous year. Total output volume reached 29,306 tons (index 99.8). Block butter production declined rapidly year on year by 5,321 tons from 11,620 tons to 6,299 tons (index 54.2). Production of butter spreads sharply increased by 21.2%, from 8,396 tons to 10,172 tons. Butter imports grew from 4,442 tons in 2004 to 6,502 tons in 2005 (+46.3%).

Quark and quark specialties

Table 9: Production of quark and quark specialties

Product	Production in tons		Change	index 2005/2004
	2004	2005		
Quarks	34,368	29,444	-4,924	85.7
Crèmes	10,356	10,645	289	102.8
Quark desserts	3,488	3,642	154	104.4
Total	48,212	43,731	-4,481	91.1

Within this group of products, one can observe the continuously favorable development of crèmes, whose production volume grew by 2.8% to 10,645 tons. Positive growth was registered also in the production of quark desserts, where there was a year-on-year increase of 4.4% to 3,642 tons.

A very sharp decline in production – by 14.3% – was reported for the category of quarks, as the total had been 34,368 tons in 2004 but was just 29,444 tons in 2005. The largest decline of 2,957 tons to 4,330 tons (40.6%) was reported in the group of soft and high-fat quarks.

A decline of 1,794 tons was reported in production of soft quark, output of which totaled 20,471 tons (-8.1%). Meanwhile, production of hard quark rose by 123 tons to 1,476 tons (+9.1 %). Industrial quark showed a very sharp decline of 1,373 tons to 2,090 tons (-60.4%).

Cheeses

Production of natural cheeses declined year on year by 2.8%, from 94,367 tons to 91,720 tons. Production of processed cheeses remained basically steady, growing by just 77 tons to 19,990 tons (+0.4%).

Table 10: Development in cheese production, total

Product	Production in tons		Change	index 2005/2004
	2004	2005		
Natural cheeses	94,367	91,720	-2,647	97.2
Processed cheeses	19,913	19,990	77	100.4
Total cheeses	114,280	111,710	-2,570	97.8

Overall production of natural and processed cheeses declined year on year by 2,570 tons to 111,710 tons (-2.2%). Using such data as is available, the following table provides an overview of natural cheeses production in accordance with traditional product categories.

Table 11: Production of natural cheeses

Cheese groups	Production in tons		Change in tons	index 2005/2004
	2004	2005		
Fresh unripened	8,029	7,721	-308	96.2
Soft ripened	x	x	x	x
Brined cheeses	8,191	7,221	-970	88.2
Mold cheeses	14,040	14,905	865	106.2
Selected semi-hard	52,366	47,998	-4,368	91.7
Hard and extra hard	5,672	8,709	3,037	153.5
Other	x	x	x	x

In order to protect certain data, the volume of production of soft ripened cheeses is not included here.

The greatest share in total production of natural cheese falls into the group of selected semi-hard cheeses, including especially Edam, Gouda and Madeland. Production of cheeses in this category sharply declined year on year by 4,368 tons (-8.3%). This slump surpasses in volume the overall decline in the volume of natural cheeses. A sharp increase in production was registered for hard and extra hard cheeses (+53.5%) and for mold cheeses (+6.2%). A decline in production was reported also for brined cheeses (-11.8%). Overall, sales of domestic natural cheeses in the internal market remained fairly steady, as there was only a slight decline of 55 tons for the year to 76,385 tons.

The import of assorted products in the group CN 0406, which includes cheeses and quarks, grew very sharply year on year by 13,566 tons (+ 40.9%), i.e., from 30,975 tons in 2004 to 43,641 tons in 2005. Approximately one-fourth of the overall imports was made up of fresh cheeses and quarks (25.2%), while more than half (53.5%) consisted of natural hard cheeses (predominantly from Poland and Germany). Nearly one-fifth (19%) was made up of processed cheeses, with a large proportion of this being cheeses of Polish origin.

The export volume of cheeses and quarks grew slightly, from 18,495 tons in 2004 to 19,586 tons in 2005 (+5.9%). This did not reach even half the volume (44.9%) of imports in this category.

Dried milk production

Table 12: Production, exports and inventories of dried milk (less infant formulas)

Product	Production in tons		Change in tons	index 2005/2004
	2004	2005		
Beginning inventory, 1 Jan.	7,307	3,691	-3,616	50.5
of which – NFDM	6,002	2,298	-3,704	38.3
– WMP	1,305	1,393	88	106.7
Total production	53,160	51,028	-2,132	96.0
of which – NFDM	32,832	33,464	632	101.9
– WMP	20,328	17,564	-2,764	86.4
Total exports	42,596	28,020	-14,576	65.8
of which – NFDM	28,605	15,189	-13,416	53.1
– WMP	13,991	12,831	-1,160	91.7
Ending inventory, 31 Dec.	3,693	3,009	-682	81.5
of which – NFDM	2,298	1,905	-393	82.9
– WMP	1,393	1,104	-289	79.3

High inventories of dried milk at the beginning of 2004, at 7,307 tons (of which 6,002 tons were nonfat dry milk), had been caused by their having been held back from export in 2003. On the basis of an extraordinary measure before the country's accession to the EU (on 1 May 2004), their volume was reduced to 1,720 tons, of which 845 tons were of NFDM.

During the course of 2005, total production of dried milk declined year on year by 2,132 tons to 51,028 tons (index 96.0). In the overall volume, the share of NFDM production was 33,464 tons (index 101.9) and that of whole milk power (WMP) was 17,564 tons (index 86.4).

Exports of dried milk products declined year on year by 14,576 tons, from 42,596 tons in 2004 to 28,020 tons in 2005 (index 65.8). Export of NFDM declined by 13,416 tons to 15,189 tons (index 53.1) and the export of WMP likewise declined by 1,160 tons to 12,831 tons (index 91.7).

Inventories of dried milk reached 3,009 tons (index 81.5) as of 31 December 2005, of which NFDM totaled 1,905 tons (index 82.9) and WMP stocks were 1,104 tons (index 79.3).

Foreign trade

Table 13: Foreign trade in Czech dairy products (CZK mil.)

Indicator/year	2004	2005	Change	index 2005/2004
Export of milk and dairy products	7,637	9,204	1,567	120.5
Import of milk and dairy products	4,992	6,741	1,479	129.6
Balance	2,645	2,733	88	103.3

Data from customs statistics.

Foreign trade in dairy products during 2005 showed a 29.6% year-on-year increase in the total value of dairy product imports, as these rose from CZK 4.99 bil. to CZK 6.74 bil. (+CZK 1.48 bil.). Meanwhile, the value of dairy product exports grew by 20.5%, from CZK 7.64 bil. in 2004 to CZK 9.20 bil. (+CZK 1.57 bil.). The overall positive balance increased by a slight 3.3%, from CZK 2.65 bil. to CZK 2.73 bil.

Conclusion

The year 2005 was the first full year that the development of milk purchases and their processing into dairy products occurred in the conditions of the single market. The comparison of its results with those of the previous year is partially influenced by the fact that 2004 had still included four months prior to the EU entrance date.

While the volume of milk purchases declined modestly year on year, there did occur a noticeable increase in average procurement prices. This increase failed, however, to follow through to the prices for final products, the price level of which, on the contrary, actually declined.

The negative pressure that this put on the dairy economy was only intensified by the growing imports of frequently cheaper competing products, and in particular cheeses.

Comparison of the results from 2005 in the EU conditions with those of the pre-accession year 2003 accentuates the following characteristic features: While the volume of raw milk procurements declined by 2.2%, the average farm-gate milk price increased by CZK 0.49/liter (6.3%). Meanwhile, production of fluid milk for consumers grew by 20.1% and that of creams by 41.1%. On the other hand, there was a sharp decline of 13% in butter production while the output of dried milk fell by 19.9%. Together with this, there was a marked decline also in exports of both of these last-mentioned basic dairy commodities.

Prague, 7 February 2006
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Appendix

Production of dairy products in 2005

Product	Unit	2004 production	2005 production	index 2005/2004
Raw milk purchases	mil. l	2,496	2,476	99.2
Average butterfat content	%	4.0	3.90	97.5
Average protein content	%	3.40	3.38	99.4
Average procurement price	CZK/l	8.06	8.28	102.7
Fluid milk, total	'000s l	499,120	569,323	114.1
Creams, including cultured	'000s l	49,794	53,761	108.0
Yogurts, total	tons	91,871	100,997	109.9
Quarks, total	tons	34,368	29,444	85.7
Crèmes	tons	10,356	10,645	102.8
Quark desserts	tons	3,488	3,642	104.4
Butter, total	tons	59,352	54,104	91.2
Natural cheeses	tons	94,367	91,720	97.2
Processed cheeses	tons	19,913	19,990	100.4
Dried milk (less infant formulas), total	tons	53,160	51,028	96.0
of which – nonfat dry milk	tons	32,832	33,464	101.9

*Source: Statistical survey of the Ministry of Agriculture of the Czech Republic
Prague, 7 February 2006*

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