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# PRODUCTION OF MILK AND DAIRY PRODUCTS, 2022

In 2022, as compared to 2021, the quantity of collected cows' milk decreased by 5.4%. The quantity of ewes' milk decreased by 19.0% and of goats' milk by 8.4%.

Expressed in quantities, it means that in 2022, as much as 23 140 t less cows' milk, 525 t less ewes' milk and 326 t less goats' milk was collected.

The quantity of whole milk imported by dairies increased in 2022 as compared to 2021 by about 29 900 t, that is, by 20.5%, while the quantity of imported cream increased by about 2 800 t (57.8%).

Compared to the previous year, the production of drinking milk increased by about 13 000 t (4.9%), the production of cream by 362 t (1.1%) and fermented products by 152 t (0.2%), while the production of drinks with a milk base decreased by 2 500 t (11.1%).

There was an increase of 108 t (2.7%) in the production of butter and of 883 t (2.7%) in the total cows' cheese production in 2022 as compared to 2021. The production of cheese from ewes' milk (pure) decreased by 9.8% and of cheese from goats' milk (pure) by 4.2%.

Regarding the production of other types of cheese, the production of soft cheese decreased by 64.1% (960 t), of medium-soft cheese by 1.8% (3 t), and of hard cheese by 17.5% (177 t). The production of fresh cheese increased by 0.4%, of medium-hard cheese by 0.3%, and of extra hard cheese by 441.7%.

As compared to the previous year, the milk fat content in collected cows' milk decreased by 5.5%, in ewes' milk by 19.5%, and in goats' milk by 8.7%.

Regarding individual dairy products, the milk fat content in drinking milk increased by 4.9%, in fermented products by 123.0%, in butter by 2.7%, and in cheese from cows' milk (pure) by 0.6%. The milk fat content decreased in cream by 0.7% and drinks with a milk base by 9.4%.

The cows' milk protein content decreased in drinking milk by 12.3% and in cream by 5.2%. It increased in cows' cheese by 6.4%.

# 1 MILK AND DAIRY PRODUCTS, 2022<sup>1)</sup>

	Quantiti	es, t	Indices	
	2021	2022	<u>2022</u> 2021	
Availability				
Cows' milk collected	428 665	405 525	94,6	
Ewes' milk collected	2 756	2 231	81,0	
Goats' milk collected	3 882	3 556	91,6	
Cream	z	z	z	
Whole milk import – only dairies	145 868	175 777	120,5	
Skimmed milk import – only dairies	z	z	z	
Cream import – only dairies	4 892	7 719	157,8	
Other products (e.g. cheese, butter, yoghurt) – only dairies	z	z	z	
Production of fresh products	<u>'</u>	,		
Drinking milk	264 776	277 769	104,9	
Whole and raw milk	137 135	144 465	105,3	
Semi-skimmed milk	125 123	130 208	104,1	
Skimmed milk	2 518	3 096	123,0	
Buttermilk	z	z	Z	
Cream	32 096	32 458	101,1	
With fat content of < 29%	21 027	21 601	102,7	
With fat content of > 29%	11 069	10 857	98,1	
Fermented products (yoghurts, drinking yoghurts and other)	89 917	90 069	100,2	
With additives	17 856	19 040	106,6	
Without additives	72 061	71 029	98,6	
Drinks with a milk base	22 512	20 012	88,9	
Other fresh products (milk jelly and other)	z	z	Z	
Production of other products		·		
Powdered dairy products	z	z	Z	
Butter	4 064	4 172	102,7	
Other yellow fat dairy products	z	z	Z	
Cheese from cows' milk (pure)	32 356	33 239	102,7	
Cheese from ewes' milk (pure)	245	221	90,2	
Cheese from goats' milk (pure)	142	136	95,8	
Other cheese (mixed)	10	14	140,0	
Soft cheese (> 68% of moisture)	1 498	538	35,9	
Medium-soft cheese (62% – 68% of moisture)	169	166	98,2	
Medium-hard cheese (55% – 62% of moisture)	12 901	12 942	100,3	
Hard cheese (47% – 55% of moisture)	1 010	833	82,5	
Extra hard cheese (< 47% of moisture)	427	2 313	541,7	
Fresh cheese	16 748	16 818	100,4	
Processed cheese	2 865	2 782	97,1	
Whey – total	37 358	34 832	93,2	
Export of milk and cream in bulk – only dairies	Z	z	Z	

<sup>1)</sup> See Notes on Methodology.

#### 2 MILK FAT CONTENT IN MAIN DAIRY PRODUCTS, 2022

	Milk fat content, t		Indices
	2021	2022	<u>2022</u> 2021
Availability			
Cows' milk collected	17 338	16 390	94,5
Ewes' milk collected	190	153	80,5
Goats' milk collected	127	116	91,3
Cream	Z	z	Z
Whole milk import – only dairies	5 930	7 122	120,1
Skimmed milk import – only dairies	Z	z	Z
Cream import – only dairies	1 921	3 033	157,9
Products			
Drinking milk	6 996*	7 341	104,9
Buttermilk	z	z	Z
Cream	5 662	5 623	99,3
Fermented products (yoghurts, drinking yoghurts and other)	1 283	2 861	223,0
Drinks with a milk base	523	474	90,6
Other fresh products (milk jelly and other)	Z	z	Z
Concentrated milk	-	-	-
Powdered dairy products	Z	z	Z
Butter	3 332*	3 421	102,7
Other yellow fat dairy products	Z	z	Z
Cheese from cows' milk (pure)	5 187*	5 219	100,6
Whey – total	121	105	86,8
Export of milk and cream in bulk – only dairies	Z	Z	z

## 3 COWS' MILK PROTEIN CONTENT IN MAIN DAIRY PRODUCTS, 2022

Products	Protein content, t		Indices
	2021	2022	<u>2022</u> 2021
Drinking milk	8 596	7 536	87,7
Whole milk	4 490	3 918	87,3
Semi-skimmed milk	4 025	3 535	87,8
Skimmed milk	81	83	102,5
Buttermilk	Z	Z	Z
Cream	984	933	94,8
Powdered dairy products	Z	z	Z
Butter and other yellow fat dairy products	Z	Z	Z
Cheese from cows' milk	5 343	5 687	106,4
Processed cheese	360	342	95,0
Whey	212	190	89,6

## **NOTES ON METHODOLOGY**

#### Sources and methods of data collection

Data on the annual production of milk and dairy products are taken over from the Croatian Agency for Agriculture and Food – the Central Laboratory for Milk Quality Control (SLKM). The data collected that way refer to the quantity of cows', ewes' and goats' milk collected, milk fat and protein contents, the production of dairy products from cows' milk and the foreign dairies' trade in milk and dairy products.

The Laboratory processes the collected data and submits them, according to the previously defined deadlines and in suitable form, to the Croatian Bureau of Statistics for further processing.

The methodology for carrying out the survey on milk and dairy products is based on the Methodological Basis for Gathering Data on Milk and Dairy Products Statistics (NN, No. 42/13).

#### Coverage and comparability

There are about forty dairies operating in the Republic of Croatia for which the SLKM makes analysis of purchased milk and from which it collects data on the production. The coverage includes industrial and registered small dairies.

#### Confidentiality

Aggregated data for which there are reasons for confidentiality (small number of units, the dominance rule or secondary confidentiality rule) according to the Official Statistics Act (NN, No. 25/20) and to the Ordinance on the Statistical Data Protection Method of the Croatian Bureau of Statistics are treated as confidential and therefore are not published.

#### **Definitions**

Drinking milk comprises raw milk, whole milk, skimmed milk, semi-skimmed milk and skimmed milk containing no additives.

Raw milk comprises milk that has not been heated beyond 40 °C or undergone any treatment that has an equivalent effect.

Whole milk (pasteurised, sterilised and uperised) comprises milk with fat content ≥ 3.5%, subject to heat treatment.

Semi-skimmed milk (pasteurised, sterilised and uperised) comprises milk with fat content 1.5% – 2.8%, subject to one heat treatment.

Skimmed milk (pasteurised, sterilised and uperised) comprises milk with fat content < 1.5%, subject to one heat treatment.

Pasteurised milk - milk treated with high temperature (at least 72 °C for 15 seconds).

Sterilised milk - milk treated with high temperature (120 °C for 30 minutes) in hermetically sealed containers.

**Uperised milk** - milk treated with high temperature (135 °C for not less than 1 second).

**Buttermilk** is a residual product of the processing of milk or cream into butter.

Cream comprises cream for direct consumption, containing more or less than 29% of milk fat.

Fermented products include yoghurts, drinkable yoghurts, acidified milk and other fermented products either with or without additives.

Drinks with a milk base comprise products containing at least 50% milk equivalent (chocolate milk, buttermilk with additives, etc.).

Other fresh products comprise fresh milk products not elsewhere specified (mainly milk-based desserts).

Concentrated milk comprises milk obtained by partial elimination of water from whole milk, semi-skimmed or skimmed milk.

Powdered dairy products comprise products obtained by eliminating water from cream, all kinds of milk, buttermilk and fermented products.

Butter includes traditional butter, melted butter, butter oil and similar products containing more than 80% of milk fat.

Other yellow fat products comprise products based on butter with milk fat content of less than 80%.

Cheese includes fresh or matured, solid or semi-solid products, obtained by coagulating milk, cream, buttermilk or other products.

Processed cheese comprises products obtained by grinding, mixing, melting and emulsifying one or more varieties of cheese, with or without additives.

Whey includes liquid whey and powdered whey in liquid equivalent. It is a by-product obtained during the manufacture of cheese or casein.

#### **Abbreviations**

°C degree Celsius

t tonne

z data are not published for confidentiality reasons

### Symbols

- no occurrence < less than > more than

more than or equal tocorrected data

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