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Report Highlights:

The Bulgarian dairy industry developed successfully and made good progress in 2020. The total dairy herd increased by six percent, cow milk production grew by more than seven percent, and milk collection and processing also expanded. This was due to increasingly large and more efficient dairy operations, higher milk yields, and industry consolidation. During the first seven months of 2020, milk deliveries continued to grow, but at a slower pace by about one percent over the same period in 2020. The hot and dry summer of 2021 was challenging for dairy farmers; however, the expectations are for stabilization of the dairy industry in 2021. Currently, the main concern for farms is skyrocketing feed grain and energy prices. COVID-19 did not considerably affect Bulgarian dairy consumption, which continued to grow by two percent in 2020 over 2019. Due to a better tourist season, consumption has expanded in 2021 and prospects for 2022 are optimistic.

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Dairy Farms and Dairy Cow Inventory

In 2020, the multiyear trend of decline in the number of dairy farms reverted and the number of farms grew by 22.3 percent to about 18,000 farms (Table 1). All categories of farms experienced an increase, including the smallest farms with 1-2 cows, which grew by 31.8 percent. This is considered to be a temporary phenomenon related to COVID-motivated moves from urban to rural areas and small farming. In addition, consumer demand for direct fresh milk or dairy products from small farms increased due to the strive for healthier lifestyle.

The dairy cow inventory at all farms increased with the total dairy herd expanding by 5.9 percent (Table 1). The smallest farms (1-2 cows) still accounted for 67 percent of Bulgaria's total number of dairy farms, but they managed only six percent of the total national dairy herd (Graph 1). Commercial farms (over 100 cows) were stable and kept investing in productivity and technology. Farms with at least 50 cows accounted for seven percent of total dairy cattle farms and 59 percent of the national dairy herd. The average number of cows per farm slightly decreased from 15.6 in 2019 to 14.1 in 2020. In 2020, the national beef herd grew to 140,000 head, accounting for 38 percent of total cattle (although some of these were spent dairy cows registered as "for meat").



Graph 1: Distribution of Dairy Farms in Size, 2020

Source: Bulgarian Ministry of Agriculture, Foods and Forests Statistical Bulletins



Graph 2: Distribution of Dairy Farms in Size, 2020

Source: Bulgarian Ministry of Agriculture, Foods and Forests Statistical Bulletins



Graph 3: Dairy Farms and Dairy Cow Inventory Development, 2012-2020

Source: Bulgarian Ministry of Agriculture, Foods and Forests Statistical Bulletins

Post expects that Bulgaria's dairy cow inventory will further recover in 2021 and 2022, due to a more stable animal-health situation, favorable milk prices, and higher dairy inventory. Average milk yields are estimated to grow steadily, especially at commercial farms.

Fluid Milk Production

In 2020, total fluid milk production increased by seven percent. Cow milk production grew by 7.2 percent, sheep milk by 14.2 percent, and buffalo milk by 20.3 percent over 2019. The goat milk was an exception with 15.5 percent decline in 2020 from 2019 (Table 2). The growth in cow milk production was due to a six percent increase in the dairy cow inventory, as well as in improving milk yields. Cow milk deliveries in 2020 were also 6.7 percent higher than in 2019. According to official January-July 2021 data, cow milk deliveries continued to increase although at a slower rate by one percent over the corresponding period in 2020. Stable cow inventories and improving milk yields in 2021 should lead to a moderate milk production growth, and a rebound in 2022.

<u>Milk Deliveries:</u> Previously, the Bulgarian dairy sector's biggest challenge was the consistent decline in milk deliveries for processing (Table 3 and 4, Graph 4). However, over the last five years, this trend has shifted due to increased consolidation and commercialization. In 2020, total milk and cow milk deliveries grew by 6.5 and 6.7 percent, respectively, with the share of cow milk deliveries totaling 94 percent. Cow milk prices were favorable due to stronger demand from processing (Table 3). Cow milk deliveries achieved 77 percent of production in 2020. Post expects that this trend will continue as dairy farms and processors continue to modernize. Milk quality has become more consistent, largely due to farm consolidation.

<u>Milk Cost and Prices</u>: 2020 Bulgarian cow milk prices were higher than in the previous year (see average monthly prices <u>here</u>) and varied between \in 30.94/100 kg (July) and \in 32.47/100 kg (December). These prices lagged behind EU average prices by 10-15 percent in different months. In January-September 2021, prices varied between \in 32.43/100 kg (April and June) to \in 32.84/100 kg (September). Average milk prices in August 2021 (\in 32.65/100 kg) were 4.8 percent higher than in August 2020. Bulgaria's September 2021 average milk price was 10 percent below the EU average (\in 36.76/100 kg). Although Bulgarian cow milk prices are still below EU-averages, there is a clear trend of price convergence.

<u>Milk for Direct Sales</u>: Direct sales and on-farm milk consumption have declined since 2016 (Table 3). In 2020, the share of direct sales and on-farm cow milk use remained low, at 23 percent, due to the industry's commercialization and the efforts to limit gray market channels.



Graph 4: Cow Milk Production and Deliveries, 2012-2020

Source: Bulgarian Ministry of Agriculture, Foods and Forests Statistical Bulletins

Milk Processing

In 2020, Bulgaria had 243 dairy processors. Cow milk accounted for 94.4 percent of all industrial use in 2020, followed by sheep milk at 3.5 percent, goat milk at 1.4 percent, and buffalo milk at 0.7 percent (Table 4). Buffalo milk is produced in small quantities and does not meet the volumes required by commercial dairies and reportedly, the prices offered to farmers have increased.

Despite consistently increasing domestic milk deliveries and the growth in production in 2020, the demand for raw milk by the processors was stronger and led to higher total dairy imports, including imports of fluid milk and milk substitutes. Often, demand for imported milk is driven by cost and/or logistical advantages for imports. According to the authorities, in 2020 processors used 17,000 MT of imported raw milk, 6,107 MT of concentrated milk, 7,316 MT of powdered milk and cream, 6,020 MT of milk concentrate, and 1,362 MT of other milk substitutes (source: Ministry of Agriculture (MinAg) Bulletin 392/June 2021).

The total 2020 output of processed products grew by three percent to 332,000 MT (Graph 5) due to production increases in almost all types of dairy products: white cheese by 6.9 percent, yellow cheese by 7.6 percent, packaged drinking milk by 4.8 percent, etc. Output of cheese with added plant and/or vegetable oils (usually palm oil) increased by 9.6 percent despite the consistent consumer campaigns against these products (Table 6). The value of processed dairy products grew by 10 percent (source: MinAg Bulletin 392/June 2021).

Tentative data for January-July 2021 confirm a sustained trend for dairy production growth. The total output of processed dairy products grew by four percent over the same period in 2020. Cheese output increased by five percent and drinking milk by 5.8 percent. Output of yogurt increased by 2.4 percent and cheeses with plant oils grew by 2.8 percent.



Graph 5: Processed Dairy Products Production, 2012-2020

Source: Bulgarian Ministry of Agriculture, Foods and Forests Statistical Bulletins

Consumption

Annual dairy product consumption in 2020 increased by about two percent, from 65.5 kg/capita in 2019 to 66.8 kg/capita in 2020 (Graph 6). Fluid milk and yogurt consumption were higher at 18.0 kg/capita and 29.6 kg/capita, respectively. Fluid milk continued to face increasing competition from plant-based alternatives such as soy, almond, rice, and other types of milk. White cheese consumption declined to 11.8 kg/capita (by 2.5 percent) and yellow cheese was slightly higher at 4.6 kg/capita. These data do not include the food service sector, which is a substantial driver for consumer demand but had a limited role for the overall consumption in 2020 due to closed HRI outlets. Conversely, 2020 data show a moderate increase in home consumption, driven by COVID self-isolations, especially for butter and yogurt.

Despite consumer campaigns against "palm/plant oil" cheeses, lower-end cheese products continue to have their market share. Output of such cheeses in 2020 was 9.6 percent higher and the growth for January-July 2021 was at 2.8 percent. In August 2021, the authorities approved an amended regulation limiting sales of such cheese and making it more costly for dairy manufacturers, usually small companies. The regulation banned sales of such cheeses in bulk at window displays at shops and required mandatory packaging within three months (see Ag Policy section).

Conversely, the market for higher-end dairy products such as specialty fruit yogurts has grown, both in volume and in value. The consumer demand has been favorable and stimulated sales of more premium products. New product launches and expanding product diversity have been key for the positive market development. In July 2021, a published market study by JTN (source: <u>http://progressive.bg/bg</u>) showed that the number of consumers buying fruit yogurts and fruit dairy drinks is increasing. Fruit specialty yogurt is consumed once a week by 14 percent of consumers and fruit dairy drink by 13 percent of

consumers. These two products are the most preferred by consumers in the age group of 33-39 years. On the other hand, 32 percent of consumers do not buy fruit yogurts/drinks, mainly those above 40 years of age. There is a seasonality in consumption with higher use of dairy yogurts/drinks in the summer. The most preferred flavors are strawberry, forest fruits, and raspberry.



Graph 6. Dairy Products Consumption per Capita, 2010-2020

Source: Bulgarian Ministry of Agriculture, Foods and Forests Statistical Bulletins

Trade

2020 dairy product imports (HS#0401-0406) by volume increased by 4.1 percent to 147,000 MT. Imports consisted mainly of fresh milk for processing (40 percent of total imports), non-fat dry milk (NFDM), whole milk powder (WMP), and whey. Cheese imports accounted for 19 percent of total imports, up by 6.6 percent over 2019 (Graph 7 and 9). 2020 dairy exports decreased to 43,000 MT, down about six percent from 2019. Cheese accounted for the largest share of exports at 54 percent (Graph 8), followed by fresh milk at 23 percent.

Graphs 7 and 8: Dairy Imports and Exports Structure, 2020



Source: Eurostat/Trade Data Monitor/ TDM

Fluid Milk (HS#0401): 2020 imports of non-concentrated fresh milk (HS#0401) increased considerably by 24.5 percent due to strong demand by the processors and despite improved milk deliveries. Major suppliers were Romania, Hungary, and Poland. During the first six months of 2021, imports grew by 15 percent because of the usual winter milk deficit and the recovering HRI and summer tourism, which drove higher consumer demand for processed dairy products. In 2020, fluid milk exports were on par with 2019. This trend was sustained in January- June 2021.

NFDM (HS#040210): 2020 imports of NFDM decreased by 15 percent over 2019. Poland and Germany were the major suppliers. In 2021 through June, imports grew by eight percent.

WMP (HS#040221, 040229, WTO-Dry Whole Milk and Cream): Combined 2020 imports of WMP declined by 17 percent to 1,500 MT. According to January-June 2021 data, WMP imports decreased further by 36 percent. The main suppliers were Poland and the Netherlands.

Butter (HS #040510, 04051090, WTO-Butter and Milk Fat, in BET): Combined 2020 butter imports increased by 5.9 percent to a record-high of 9,000 milk equivalent (BET) from 2019, driven by favorable consumer demand. Bulgaria sourced butter mainly from Germany and the Netherlands. January-June 2021 butter imports moderated by seven percent, mainly due to 16 percent higher average import price.

Cheese (HS#0406): 2020 cheese imports reached a record high of 28,000 MT, upward by 3.3 percent over 2019. Cheese imports continued to exceed exports by almost 4,900 MT (Graph 9). Official January-June 2021 data show imports expanding by another 12 percent over the same period in 2020. Cheese imports were sourced mainly from Poland, Germany, and the Netherlands.

Cheese exports are traditionally important for Bulgaria and supported by various private and public programs. However, since 2016, cheese exports have declined. In 2020, cheese exports were on par with 2019. For the first six months of 2021, exports increased by 14 percent. Bulgaria's main cheese export markets are Greece, the United States, Germany, Romania, and the United Kingdom. (Graph 9).



Graph 9: HS#0406 Cheese Trade, Imports and Exports, 2012-2020

Source: Eurostat/TDM

Agricultural Policy

Animal Health:

No significant diseases have affected the dairy industry in 2020 and to date in 2021.

Animal Breeding and Selection:

In 2020 and 2021, the MinAg continued to allocate more resources to support the breeding association and subsidize the use of high-quality genetics by farmers. Breeding Associations receive a subsidy every year to support its administrative expenses for keeping the pedigree books. In early 2021, the associations received \$4.7 million.

According to industry sources, new subsidies had a positive effect on breeding work. Imports of bovine semen in 2020 reached 135,000 doses, one percent more than 2019, followed by 30 percent higher imports in January-June 2021. In value terms, 2020 imports reached \$750,000, 22 percent higher than in 2019. In 2021 through June, imports in value grew by 39 percent.

Dairy Products Regulations:

In August 2021, the authorities approved an amended regulation (Ordinance 3 about specific requirements to dairy products) limiting sales of cheese containing plant oils or "extra" water. According to the regulation, production of any dairy product should be made using as a minimum 80 percent fresh milk and up to 20 percent other milk substitutes such as powder milk, concentrated milk and/or milk proteins. White cheese should contain not less than 40 percent dry substance and should not have less than 40 percent fat content. If a cheese product has lower than these characteristics, then it

should be labeled as "cheese with higher water content" and should be sold only packaged, not in bulk. Such products are considered "imitating" and the words "dairy" cannot be used on the label/package. The label should say "Imitating Product" and should list all ingredients. At retail, such products should be placed separately from other dairy products on shelves/spaces indicated as "imitating products". The regulation banned sales of such cheese in bulk at window displays at shops and required mandatory packaging within three months.

The industry reaction to the new regulation was mixed. While manufacturers of higher-end cheese supported the change as helping the consumer to make a distinction between "real" and "imitating" cheese, other industry stakeholders defined the regulation as highly discriminatory. These dairy producers opined that lower priced cheeses (usually priced at up to \$7-\$8.0/kilo) have their market segment among budget consumers while higher-end cheeses (usually priced at up to \$12-13.0/kilo) are unaffordable for these customers. The industry thinks also that mandatory cheese plastic packaging is against recent EC policies for lower use of plastic food packaging. The regulation is expected to make manufacturing and sales of such cheese more expensive, to increase the inflation pressure, and may lead to a loss of jobs and closure of smaller dairy manufacturers. The main concern expressed by various stakeholders in the dairy industry, however, remained why the Government should intervene on the market and determine what and how to sell.

Domestic Support:

Coupled support programs exist for dairy cows, for dairy cows under selection control, and for dairy cattle farms in mountainous areas. In 2020 (paid for 2019 campaign), \$19 million were paid to 3,900 dairy farms. The subsidy rate was set at €157/head for up to 30 animals and €143/head for above 30 animals. For dairy cattle under selection control, 923 farmers were paid \$23 million at a subsidy rate of €263/head for up to 30 animals and €240/head for above 30 animals. For dairy farms in mountainous areas, \$425,000 were paid to 312 small farmers with 5-9 dairy cows, at a rate of €150/head. In addition, dairy farms are eligible for so called transitional, not coupled, national aid. The budget of this program in 2019 was at \$22 million, and the beneficiaries were 4,500 farms at a rate of €89/head of cattle and €156/head of buffalo (source: Agrarian Report 2020).

In early 2021, about \$13 million were paid to 13,000 farmers (the eligible farmers should raise cows, heifers, buffalos, ewes, and she-goats) under *de minimis* program for animal feed. The subsidy rate for dairy cows was set between $\notin 10$ /head and $\notin 20$ /head depending on the size of the farm, if the cows are under selection control and if the farm is in the mountainous area. The goal of the program was to subsidize the feed cost for the drought-hit farms in 2020.

In school year 2020/21, Bulgaria continued to fund a school program for fresh produce and dairy products for children (about \$13 million paid for 2020/21). Total 430,000 children in 3,330 schools participated in the program in 2020/21. For the school year 2021/22, 415,000 children will take part in the program at 3,366 schools.

Geographic Indications

In February 2021, Bulgaria started an application process with the EC to receive Protected Designation of Origin status for the Bulgarian yogurt and for the Bulgarian white cheese in brine. It is expected that the process will take one to two years.

Changes in the number of dairy cattle farms and dairy herd, 2020 vs. 2019				
•	Number of farms as of end-2020	Change 2020/2019	Dairy cows, 1,000 head	Change 2020/2019
cows per farm 1-2	11,730	31.8%	14.4	32.1%
3-9	1,859	18.2%	8.7	17.6%
10-19	1,056	-5.2%	14.5	5.8%
20-49	1,764	4.7%	56.4	3.5%
50-99	820	9.0%	54.3	9.0%
100 and above	383	1.1%	79.5	3.0%
Total	17,612	22.3%	227.8	5.9%
Source: Bulletin 389, April 2021, Statistical Office, MinAg				

Appendix: <u>Table 1. Dairy Cattle Farms and Dairy Herd, 2020</u>

Table 2. Milk Production, 2009-2020, MT

Milk Production, 2009-2020, MT						
Years	Cow milk	Buffalo milk	Sheep milk	Goat milk	Total milk	
2009	1,073,401	7,022	87,247	64,090	1,231,760	
2010	1,124,360	7,933	85,001	60,410	1,277,704	
2011	1,125,824	8,868	89,296	61,543	1,285,531	
2012	1,093,034	8,081	87,403	53,333	1,241,851	
2013	1,147,418	8,704	93,814	54,425	1,304,362	
2014	1,102,731	8,850	74,615	44,565	1,230,762	
2015	1,028,036	9,454	73,964	40,810	1,152,265	
2016	1,018,567	9,460	79,296	40,969	1,148,291	
2017	968,177	10,355	69,040	43,585	1,091,157	
2018	898,774	11,731	71,190	43,179	1,024,873	
2019	826,293	13,281	66,969	37,226	943,769	
2020	881,763	15,898	76,114	31,309	1,005,084	
Share, %	87.7%	1.6%	7.6%	3.1%	100.0%	
2020/2019	7.2%	20.3%	14.2%	(-15.5%)	7.0%	
Percent						
Change						
Source: Bulletin 389, April 2021, Statistical Office, MinAg						

Table 3. Produced and Processed Domestic Milk in 2018-2020, MT

Produced and processed milk in 2018				
Total milk Including cow milk				
Processed at dairies	681,195 MT*	642,903 MT*		
Other: direct sales, on-farm and feed	343,679 MT	255,000 MT		
Total milk	1,024,873 MT	898,774 MT		
Change 2018/2017	+10.1% more	+11.1% more processed cow		
processed total milk milk				
Produced and processed milk in 2019				

	Total milk	Including cow milk		
Processed at dairies	693,538 MT*	654,647 MT*		
Other: direct sales, on-farm and feed	250,231 MT	171,646 MT		
Total milk	943,769 MT	826,293 MT		
Change 2019/2018	+1.8% more processed	+1.8% more processed cow		
	total milk	milk		
Produced and processed milk in 2020				
Decessed at dairies 720,946 MT* 680,537 MT*				
Other: direct sales, on-farm and feed 284,137 MT 201,225 MT				
Total milk	1,005,084 MT	881,763 MT		
Change 2020/2019	+6.5% more processed	+6.7% more processed cow		
	total milk	milk		
Source: Bulletin 392, June 2021, Statistical Office, MinAg				

Table 4. Milk Production and Processing, 2018-2020, liters

	Processing on milk, domestic and imported, 2018-2020						
Type of milk	2018		2	2019		2020	
	000 liters	% of total processed milk	000 liters	% of total processed milk	000 liters	% of total processed milk	
Cow milk	641,533	94.4%	644,904	94.4%	676,449	94.4%	4.9%
Sheep	25,098	3.7%	23,496	3.5%	25,318	3.5%	7.8%
Goat	8,923	1.3%	9,291	1.4%	10,413	1.4%	12.1%
Buffalo	3,690	0.6%	4,760	0.7%	4,461	0.7%	-6.3%%
Total	679,244	100.0%	682,451	100.0%	716,641	100.0%	5.0%
Source: Bu	Source: Bulletin 392, June 2021, Statistical Office, MinAg						

Table 5. Quality of Milk in 2020

	Fat Content, Percent	Protein Content, Percent			
Cow milk	3.69%	3.23%			
Sheep milk	6.45%	5.28%			
Goat milk	3.59%	3.23%			
Buffalo milk 6.89% 4.27%					
Source: Bulletin 392, June 2021, Statistical Office, MinAg					

Table 6. Production of Processed Dairy Products in 2019 and 2020

Production of processed dairy products in 2019 and 2020					
2019 2020 Change 2020 vs.2					
Packaged fresh milk, thousand liters	71,396	74,834	4.8%		
Packaged cream, MT	2,707	2,906	7.4%		
Yogurt	153,239	156,497	2.1%		
Cheese, total	101,841	104,987	3.0%		

-White cheese	62,192	66,459	6.9%	
incl. cheese with plant fats	12,575	13,780	9.6%	
-Yellow cheese	25,978	27,962	7.6%	
-Smoked cheeses	1,891	1,600	-15.4%	
Butter/oils	1,087	1,025	-5.7%	
Source: Bulletin 376, June 2020, Statistical Office, MinAg				

Attachments:

No Attachments.