### Dear conference delegates and guests,

Welcome to the XV All-Ukrainian Conference with International Participation DAIRY BUSINESS – 2023!

This is the second time in a raw that we are holding this conference in the conditions of war, constant shelling, economic difficulties and problems that have arisen due to the attack of the aggressor country on Ukraine.

We never get tired of thanking our valiant Armed Forces for the possibility to continue working even in these difficult conditions. We are grateful for the opportunity to meet and discuss industry issues.

The theme of this year's conference is the operation of the dairy industry in wartime, because this is something that concerns not only us, industry specialists, but also consumers of our products. We will discuss the prospects for the post-war development of the industry, which is suffering significant losses and is in dire need of support. We will learn about the possibilities of investments in the development of the raw milk sector and processing capacities under existing conditions, about changes in the country's consumer market and the state of relations between dairy processors and retailers. Special attention will be paid to the prospects for the export of dairy products.

In the conditions of the war, Ukrainian dairy industry keeps its capacities in operating state, provides the domestic market with dairy products, establishes business contacts with European dairy organizations and companie sand prepares to become a part of the European lactosphere.

The organizers are grateful to all partners of the event. Without their support holding the conference would not be possible.

Together we will win! Glory to Ukraine!

Vadym Chagarovsky Head Dairy Union of Ukraine Vasyl Vintonyak Director of INFAGRO Analytical Agency



Vasyl Vintonyak INFAGRO Director



# **DAIRY BUSINESS IN UKRAINE**

The second year of the war which changed everything in our lives, is going. The war made an extremely negative impact on the country's dairy industry. But Ukrainians in general and dairy farmers in particular believe in Ukrainian Armed Forces, in our complete Victory, and make a lot of efforts to achieve this cherished goal and the recovery of the country's «wounded» dairy industry.

### **PRODUCTION AND PROCESSING**

The war continues, but both dairy farmers and dairy producers are heroically working and even in these difficult conditions they show good results. In the current year, agricultural enterprises managed to increase milk produc-

According to preliminary forecasts, industrial farms can get almost as much milk as in the pre-war year 2021, 2.8 million tons, or 8% more than in 2022 tion. According to preliminary forecasts, this year they will milk almost as much as in the pre-war year 2021, i.e. 2.8 million tons, or 8% more than in 2022. This is generally a record high indicator for the last 20 years. The in-

crease in production occurred solely due to increased productivity of cows, because their number in the current year remains unchanged (after its reduction by 9% in 2022), at about 388.000. The average annual productivity of cows in agricultural enterprises in 2023 will be more than 7.1 thousand kg.

The performance indicators are very good, but in the future agricultural enterprises must accelerate the increase of production in order to compensate for the rapid reduction of milk production in households. In this category, over the past 5 years alone, milk production has decreased by 35%, to 4.5 million tons and it will continue to fall, even after the Victory. The older generation of peasants is no longer able to keep livestock, and the youth consider keep-

ing cows economically impractical. In prospective, we assume a 10% annual decrease in milk production by households over a long period of time. That is, after ten years, only about 320.000 cows with an annu-

### In 10 years in households and family farms together there will be kept about 320.000 cows with a total annual yield of 1.8 million tons of milk

al total milk yield of no more than 1.8 million tons may remain in households together with that produced in family farms. In 2–3 years, the population will completely stop selling their milk for industrial processing. However, there is hope for the development of family farms, they are now considered quite promising.

Based on the given scenario, to meet the domestic demand, agricultural enterprises should significantly increase milk production not only due to better productivity, but also a significant increase in the number of cows. According to rough estimates, to form a positive milk balance in ten years, the industrial dairy herd needs to be doubled. Making such a breakthrough in the industry is extremely difficult, but possible.

Now, against the backdrop of problems with the export of grain and oilseeds, farmers began to understand that the dairy farming always means real money, and they will definitely invest more in the processing of agricultural products, including animal husbandry. In addition, when Ukraine joins the EU, significant Western investments will be attracted to the country. For European partners, the dairy sector will also be interesting.

In any case, there will be a shortage of milk in Ukraine for some time, because on the one hand, the supply provided by households is falling rapidly, on

the other hand, to ensure the domestic demand, Ukrainian factories have to significantly increase the volume of milk processing to compensate the reducing volume of home made dairy production.

### According to preliminary estimates, in 2023 the volume of milk supplied to processing will increase by 7% to 2.9 million tons

After a significant drop in 2022, in 2023, according to preliminary estimates, the volume of milk processing will increase by 7% to 2.9 million tons. According to expert forecasts, the dairies' need for raw milk may double in 7–8 years. That is, the dairy industry of Ukraine can develop only under the condition of a significant increase in milk production by agricultural enterprises. With the beginning of the full-scale war, production of most dairy products decreased. This year the production is recovering, but a noticeable increase in

In recent years the largest share in milk processing structure has traditionally belonged to fresh milk products, which once supplanted cheese production volumes is expected only for fresh dairy products and cheeses, although the pre-war level will not be reached in these categories either. Milk is dried exclusively according to the residual principle, since the pro-

duction of dry milk products was unprofitable for most of the year, and there is simply not enough raw milk for the production of goods.

In the structure of milk processing by types, in recent years the largest share has traditionally belonged to fresh milk products, which at one time supplanted cheese. In the long term, the production of fresh dairy products in Ukraine will increase several times, the growth of production in the category of cheese, butter and dry milk products will be less significant, for a certain period the production of dry milk products will be even lower than in 2023.

#### CONSUMPTION

Last year, because of the war, a large number of Ukrainians went abroad. Now they are gradually returning to their homeland. This contributes to a certain increase in consumption of dairy products in the country, although this increase is still insignificant due to the economic crisis and the low solvency of the population. However, we predict that the total consumption of dairy products in 2023 will increase by 6% and amount to about 6.5 million tons (in milk equivalent). Sales of industrially made dairy products will increase by 13%.

There is some progress, but consumption of dairy products by an average resident of the country is still quite low. When Ukrainians get rich after

For most of 2023, Ukrainian exporters of dairy products are operating on the verge of unprofitability due to unfavorable external market conditions the Victory, they will buy much more dairy products, the potential is great. That is, individually, each Ukrainian will consume more milk, but it should be noted that the total consumption of milk and dairy products will not in-

crease to the pre-war level in the medium term. Therefore, Ukrainians will not need 8 million tons of milk for their own consumption anytime soon. The reason for such pessimistic forecast is not the best demographic outlook. Experts believe that even five years after the Victory, there will hardly be more than 34 million people living in Ukraine. But maybe over time, Ukrainians will drink as much milk as Finns, and eat as much cheese as French...

#### **FOREIGN TRADE**

Before the war, the changes in the dairy trade balance were not favourable for Ukrainian sellers, exports were rapidly falling and foreign purchases increasing. In 2021, both export and import of dairy products in milk equivalent amounted to about 0.6 million tons in milk equivalent.

Such negative changes would continue if it were not for the war, although it sounds unfortunate. Despite the problems caused by this war, last year Ukrainian producers of dairy products were able to make quite a good profit from exports. Dairy companies were forced to look for foreign sales markets due to a significant decrease in domestic consumption. Fortunately for them, last year the conjuncture on the global markets was quite favorable, prices rose to record highs. But sellers owe more to the decision of the friendly European countries, which allowed dairy products from Ukraine to be imported to their market without duties and quotas and also to the simplified transit through EU countries for deliveries to third countries.

In 2023, there are also no tariffs and quotas for exports to the EU, there is a possibility of transit, but the prices of external demand have fallen too much. Some products have halved in price over the course of the year, which is why Ukrainian exporters of dairy products work on the verge of breaking even for most of the year. In just a couple of years, it is unlikely that producers will be able to sell more than 0.4 million tons of dairy products (in milk equivalent), which is many times less than the figures five years ago, when more than 1 million tons of products were exported from the country.

In 2022, because of the war a decrease in consumption of dairy products in Ukraine and high prices on the world market, the import of dairy products decreased significantly. So far, it remains insignificant even in the current year. But in a few years, it will probably double due to a significant decrease in milk production in Ukraine. And this import will remain significant until Ukrainian agricultural enterprises can significantly increase milk production.

#### DAIRY INDUSTRY AFTER THE WAR

Ukraine is unique in terms of its potential, especially in the field of agroindustrial complex. Therefore, after the Victory, the accession first to the EU, and then to NATO, powerful Western investors will definitely come to our country and join the development of the dairy industry.

With proper investment, agricultural enterprises can double milk production in ten years. During this time, new modern processing facilities will be built and existing ones will be modernized to annually process more than 6 million tons of milk.

DAIRY BUSINESS in Ukraine has a great future.



# DAIRY INDUSTRY OF UKRAINE IN THE SECOND YEAR OF WAR

The dairy sub-complex is an important component of Ukraine's agricultural industry that ensures the country's food security in terms of the key type of food – dairy products, as well as forms significant volumes of added value due to the significant labor-intensiveness of milk production and processing.

Even before the start of the russian military aggression, structural changes began in the dairy sector, while the conditions of martial law acted as a catalyst for the relevant processes. As a result, in recent years the dairy sector in Ukraine underwent significant structural deformations and they will only get intensified in the near future.

### DYNAMICS OF THE NUMBER OF COWS

During 2015–2021 the total number of cows in Ukraine dropped by almost a third. In 2022, during martial law, the number of cows decreased by another 12.4%. In 2023, this trend will continue – it is expected that the decrease will be more than 7.1% of the level at the beginning of the year. Thus, the total number of cows in Ukraine at the beginning of 2024 is expected to be at the level of about 55% of the indicator of the beginning of 2015.

At the same time, in 2015–2021 the number of cows in agricultural enterprises dropped by only 19.6%. In 2020, the process actually stopped, and if it were not for russian military aggression, in 2022 the trend of increasing the number of cows would have continued. Instead, the result of the actions of the aggressor country was a 7.3% decrease in the number of cows in agricultural enterprises. In 2023, a minimal decrease of this indicator is expected – within 1.0–1.5%. Thus, the number of cows in agricultural enterprises as of the beginning of 2024 will be about 73% of the indicator of the beginning of 2015. It is expected that from 2024 the number of cows in agricultural enterprises will begin to increase.

#### DYNAMICS OF RAW MILK PRODUCTION

Despite a significant decrease in the number of cows in agricultural enterprises, in 2015–2021 their milk production remained practically unchanged and ranged from 2.67 to 2.77 million tons. This became possible due to a significant increase in the productivity of cows in agricultural enterprises, which increased by 74% during the period 2010–2021. It is expected that in 2023 the average milk yield from a cow in enterprises to exceed the mark of 7 thousand kg/head.

In 2023, a record for the past twenty years volume of milk production in agricultural enterprises is expected (more than 2.8 million tons: +7.5% to the indicator of 2022 and +2.7% to that in 2021).

On the other hand, the volume of milk production by households in 2023 will continue to decrease significantly – to the level of about 4.5 million tons (more than 56% of the 2015 level).

Reserves for increasing the efficiency of dairy farming in Ukraine in the segment of agruicultural enterprises are far not exhausted. Taking into account the average level of cow productivity in the countries with a developed dairy sector, it is possible to talk about the feasibility of further improving the technologies of keeping cows to increase the efficiency of this type of agricultural activity.

#### **CONCENTRATION OF DAIRY FARMS IN UKRAINE**

The prerequisites for the concentration of dairy farms in Ukraine have already formed. The processes of concentration of dairy farms have been taking place in Ukraine for a long time, the number of specialized dairy farms and the number of cows kept by them has been increasing. First of all, the number of enterprises that keep cows significantly reduced: during 2010–2021, their number fell from 3.741 to 1,686 units (more than 2.2 times). In 2022, their number decreased to 1.440 units. (2.6 times less than in 2010). It is obvious that the trend towards a decrease in the number of agricultural enterprises that keep cows will continue in Ukraine.

If in 2010, on average, one enterprise of those keeping cows owned 157 cows, then in 2021 it was 252, and in 2022 became 274 cows. It is expected that in 2023, the relevant indicator will approach the level of 300 cows / enterprise.

In 2010, the share of the herd of cows in agricultural enterprises that kept up to 100 cows made up 10% of the total number. In 2021, the share of such livestock reached 5.6% or changed almost 1.8 times. It is estimated that in 2023 this indicator will drop down to 5% (in relation to the value of the indicator in 2010). On the other hand, in 2010 the share of cows at enterprises with more than 500 cows was 36.3% of their total number, in 2021 the corresponding indicator had grown up to 52.5% (in 1.45 times). As to the enterprises with more

than 1.000 cows, the corresponding indicators were 11.3% by 2010 and 29.0% in 2021.

### THE PRICE SITUATION ON THE RAW MILK MARKETS

In 2023, prices for raw milk of grade «Extra» in hryvnias significantly exceed the corresponding level of the previous year.

After all, in Ukraine, after a three-month price «lull» at the end of spring - midsummer 2023, from August 2023 raw milk prices began to rise: +2.5% in August, +6% in September. The seasonal increase in raw milk prices in the second half of 2023 is ahead of the pace of the corresponding growth in 2022.

As a result of the revaluation of hryvnia in August-September, the price of raw milk in euros increased by 8.5% compared to the August level and by 12.1% compared to the July level.

As a result, in September 2023 the difference between the price level in Ukraine and the EU countries significantly decreased: at the end of 2022 the domestic price of raw milk was less than 60% of the average level for the EU and Poland; in April-May 2023 it was about 70% of the average indicator for the EU and Poland; and in September 2023 it reached 82% of the average indicator for the EU and almost 88% – for Poland.

At the same time, in September 2023, in the EU countries the trend towards stabilization of the price of raw milk continued. The previous trend, which was formed at the end of 2022, was fixed throughout the first half of 2023 predicting a decrease in price, and due to which the price lost more than a quarter: it dropped from  $\xi$ 58.3/100 kg (end of 2022) to  $\xi$ 43.7/100 kg (beginning of the II half of 2023).

In September the raw milk prices in key countries – milk producers in the EU (Germany, the Netherlands, Poland) decreased by more than a quarter comparable to the prices at the end of 2022 (that is, the price decrease amounted to more than 1.5 times).

As a result, in October 2023, the domestic milk processors was deprived of a price advantage when purchasing raw milk – the price difference with the average indicator for EU countries does not exceed 15%, in Poland – less than 10%. This significantly reduces the competitiveness of domestically produced dairy products, and dairy products and will have a negative impact on the volume of their foreign trade in the near future.

### THE PRICE SITUATION ON THE DAIRY MARKETS

In 2023 the price situation on the foreign markets of dairy products (primarily, commodities) was unfavorable. Prices for dairy products in the EU countries in August-September 2023:

- compared to the level of prices at the end of 2022, the prices decreased by almost a quarter: in particular, on WMP, SMP and hard cheese by 23%; for butter and dry whey by 26–27%.
- against the price level in mid-2022, the prices lost almost a third: in particular, hard cheese by 20%; WMP by 36%; for butter by 39%; SMP by 43%; dry whey by 47%.

Taking into account the significant volumes of exports and the favorable price situation in foreign markets, milk processing enterprises significantly increased the volume of raw milk purchases in the fall of 2022, stimulating price growth in the competition for the raw milk.

This year, the situation is significantly different – the volume of exports in 2023 will be significantly lower than in the previous year. In addition, since June 2023, a trend has been formed to reduce the volume of exports of dairy products from Ukraine, which will continue at least until the end of 2023. thus, the prerequisites for price growth in the second half of 2023 differ from the previous year – the export factor in this case is significantly less.

#### THE KEY RESULTS OF THE MILK PROCESSING OPERATIONS IN 2023

The second year of the war for milk processors turned out to be no less difficult than the first one with all the challenges and risks of the first months of fullscale russian military aggression. Moreover, in terms of economic performance, it will be significantly worse – the profitability of milk processing will significantly decrease compared to the level of 2022.

Further price dynamics on the raw milk market will be determined by a set of factors, primarily the market situation (changes in volumes of consumption due to the return of Ukrainian citizens from abroad and export prospects). However, it is obvious that the prices of raw milk in the near future will grow and this will negatively affect the competitiveness of domestically produced dairy products.

Considering the current level of world prices for dairy commodities, as well as the price level for raw milk in EU countries, Ukraine's prospects for dairy exports do not look as attractive as in the second half of 2022 and the first half of 2023. In addition, moreover, recently, with the return of emigrants to Ukraine, the volume of imports of dairy products – first of all, cheeses – began to gradually increase. Thus, in the second half of 2023 imported dairy products are massively returning to the shelves of domestic supermarkets.

In such conditions a significant price increase of raw milk will lead to a decrease in the competitiveness of domestic production, a decrease in the profitability of milk market operators, and in the future – to a decrease in the volume of purchases of raw milk, and, accordingly, a drop in the level of prices for it.

Therefore, the task of autumn-2023 is to maintain a balance between the price demands of milk producers and the possibilities of milk processing enterprises. In addition, the situation on the global dairy market, in particular, the situation on the raw milk market and European milk products is also important. Until now, the prices have remained low, which made it impossible for dairy processors to reach acceptable profitability.

#### UNSOLVED PROBLEMS THAT REQUIRE STATE REGULATION

At present, a critical situation has arisen in the dairy sub-complex of the agricultural sector of Ukraine. This may negatively affect both the activities of domestic milk processing enterprises and the level of food security of the state in terms of the vitsl type of food – milk and milk products.

According to preliminary calculations, in the current year the level of consumption of milk and milk products (in terms of milk) will decrease to less than 178 kg/person (more than 8% against the average level of the previous two years). In 2022 – the first half of 2023, the more or less acceptable level of consumption of milk and milk products (in terms of milk) was maintained «at the expense» of the population migration. However, in the second half of 2023, with the return of some citizens from abroad, the target indicator of consumption of milk and milk products (in terms of milk) decreased sharply. Moreover, in the future – in particular, in 2024 – the situation with providing the population with milk and milk products will worsen.

In view of the catastrophic decrease in the volume of milk production in households, which until recently were main milk producers in Ukraine, as well as the loss of the cow population as a result of russian military aggression, there is currently a significant shortage of raw milk in Ukraine. This causes the idleness of part of the available production capacities of milk processing enterprises of Ukraine, which are currently only half loaded, as well as to a significant increase in prices of raw milk. As of October, the latter may significantly approach the level of prices in some European countries.

The draft State Budget-2024 does not include budget expenditures for the state support of animal husbandry in general and dairy cattle breeding in particular. A similar situation took place in 2022–2023, when the state – for objective reasons – did not direct a single hryvnia of budget funds to support the development of animal husbandry in general and, in particular, dairy cattle breeding. It is quite logical that in the first two years of the war, the defense issues prevailed over the economic ones. However, in the third year of the war, development of the sectors of economy which form significant volumes of added value and ensure maintaining of an adequate level of food security in terms of vital food products, also need to be supported.

In view of this, the Dairy Union of Ukraine appealed to the People's Deputies of Ukraine – members of the inter-factional deputy association «For the development of the dairy industry of Ukraine» with a request to prepare proposals for the Draft Law of Ukraine «On the State Budget of Ukraine for 2024» (reg. No. 10000) with the aim of providing budget expenditures under the paragraph «State support for the development of animal husbandry» of the budget program «Financial support for agricultural producers» with the subsequent direction of finance to the development of dairy cattle breeding under the following sub-directions: partial reimbursement of the cost of purchased breeding cows (heifers) and semen of bulls; partial reimbursement of the cost of construction of dairy farms; a special budget subsidy for the growth of the herd of cows of own reproduction.

Other forms of the state regulation are also important, in particular:

- settlement of the problems in relations with trade networks, as the current situation leads to the leaching of working capital of milk processing enterprises;
- increasing the level of credit provision of milk processing enterprises due to the expansion of their participation in state support programs through affordable lending;
- reduction of the level of «shading» of the milk products market by stimulating the supply of raw milk for official processing (using the State Agrarian Register);
- state support for technical modernization and increasing the energy efficiency of milk processing in order to increase the competitiveness of domestically produced dairy products.

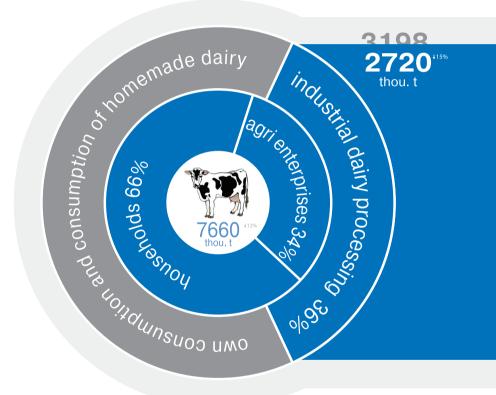
The last two tasks are designed to regulate the Draft Law of Ukraine «On Amendments to Certain Legislative Acts of Ukraine Regarding State Support for the Development of Production and Processing of Animal Husbandry Products» (reg. No. 7072 dated 18.02.2022), developed by representatives of the Dairy Union of Ukraine together with the People's Deputies of Ukraine – members of the inter-factional deputy association «For the development of the dairy industry of Ukraine».

We would like to hope that the state will not neglect the existing problems of the dairy industry, and legislative initiatives aimed at stimulating the development of dairy farming and milk processing in Ukraine will be adopted and implemented in the near future.

Expert and analytical service of the Dairy Union of Ukraine

# BALANCE

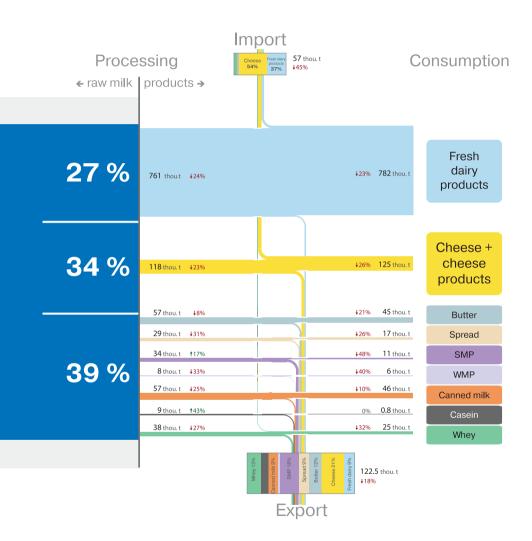
Production



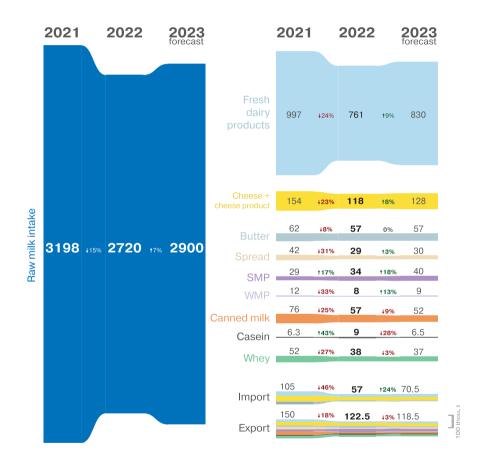


Data of 2022 without inventories

The data sources used for this booklet graphs – statistics of the State Statistics Service of Ukraine and Infagro analytics



### **DYNAMICS** OF MILK PRODUCTION AND PROCESSING





### **DYNAMICS** OF IMPORTS

### DYNAMICS OF EXPORTS

2023 forecast

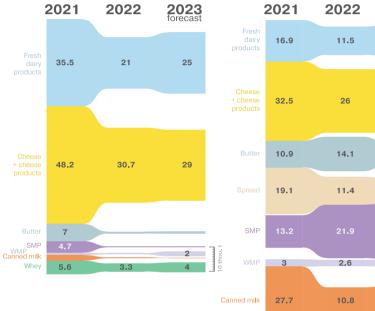
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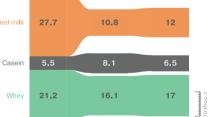
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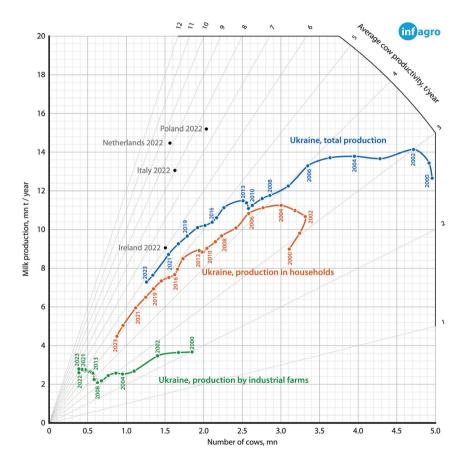
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### HOW MANY COWS DOES UKRAINE NEED?

It is known that «milk production», million tons/year and «livestock», thousand or million heads, are the main indicators in the dairy industry. There is also another important indicator: «cow productivity», thousand kg/year. All the three indicators are shown on the graph: separately for households and industrial farms (enterprises) and together for these categories of producers. They clearly demonstrate the state of milk production in Ukraine.

The graph also shows the same indicators the same indicators for 2022 for other countries geographically close to Ukraine and with a comparable number of cows.

Those who are not intimidated by the unusual type of the graph and look at its indicators carefully, will see a lot of interesting things.

First, pay attention to the «beams» of average productivity – the lines of equal productivity of cows. The steeper the «beam», the higher performance it displays. That is, for the same number of cows, milk production will be different depending on the cows' productivity. Which is obvious even without any graph. But having the real values of the indicators in front of your eyes, you can clearly see the picture of milk production and prospects (what will happen if ...).

The graph is built for the period 2000–2022 according to the data of the State Statistics Service of Ukraine (for Ukraine) and the CLAL analytical agency (for several EU countries: Poland, the Netherlands, Italy and Ireland).

According to 2022 data, having approximately the same number of cows as Ukraine, Poland produced 14.9 million tons of milk, the Netherlands 14.5 million tons, Italy 13.2 million tons, Ireland 9.0 million tons. Ukraine in 2022 produced 7.7 million tons of milk. This is an obvious indicator that the productivity of cows in Ukraine is still lower than in the selected EU countries (although it is very close to Ireland). This comparison was made for the average productivity of both cows kept in households and those in industrial farms.

### TOTAL PRODUCTION OF MILK BY ALL CATEGORIES OF PRODUCERS

If you look at the mark of the 2022 on the blue curve, you can see that in terms of cow productivity, Ukraine is close to Ireland, which in 2022 produced slightly more milk than Ukraine – 9 million tons with a herd of 1.505 million (Ukraine 7.7 million tons with a herd 1.34 million tons).

### MILK PRODUCTION BY INDUSTRIAL PRODUCERS (ENTERPRISES)

The green curve (milk production by industrial farms, that is, enterprises, that are actually main suppliers of milk for processing), shows that in 2022 the productivity of cows in Ukraine is approaching the level of productivity of cows in Poland, the country whose contribution to the total production of milk in the EU this year was 8.8%. The rest of the countries selected for the analysis of milk production are significantly ahead of Ukraine, mainly due to the high productivity of cows.

From the same graph, we can see that starting 2008, the number of cows in Ukrainian enterprises was decreasing, but at the same time, the volume of milk produced by them was growing. It was definitely due to the increase in productivity. In 2022, industrial farms had the herd of 388,000 cows.

### MILK PRODUCTION IN HOUSEHOLDS

Milk production in households (red curve) presents a different picture. In the period 2000–2002, the number of cows in the households increased, as well as their productivity. Then the herd began to decrease, and the productivity of cows was slowly increasing. This lasted until 2014. After that, the productivity was falling for some time, then in 2016 it resumed growth and crossed the productivity mark of 5,000 thousand kg/year in 2018. But against the background of a large-scale (three-fold) decrease in livestock from 3.3 million heads in 2002 to 954.000 heads in 2022, the increase in the productivity of cows in households does not compensate for the drop in the total volume of milk produced.

### HOW MANY COWS ARE NEEDED FOR THE STABLE OPERATION OF THE INDUSTRY?

The stable trend of reduction of livestock in households will continue, and this indicates that a significant part of the population, which consumed dairy products of their own production, will move into the segment of consumers of industrially made dairy products. This means that milk processors should increase the volume of dairy production. It may become possible only under the condition of the growth of milk production by agricultural enterprises, which are the main raw milk suppliers.

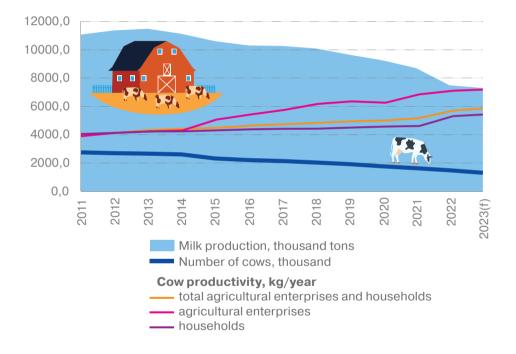
The annual changes in both cows number and their productivity are obvious when you look on the graph. As we can see, these changes has never occured sharply. Based on the current indicators, using the graph, we can say that if the current level of productivity is maintained, the volume of milk for processing prognosed by some strategies for 2030 (6 million tons), can be achieved by the growth of the number of cows in industrial farms from the current 388,000 to

approximately 980.000 heads. How many years this may take depends on how soon our Victory over the russian aggressor will come, as well as whether dairy farming will become attractive for investments. We hope it will. And then the green curve on this graph will finally turn around and head to the right (more cows) and up (higher cow productivity), indicating increased milk production and therefore positive changes in dairy industry.

#### CONCLUSION

- Since 2000, there has not been a single case, when during a year there happened a sharp positive change in any of the studied parameters: the productivity of cows, their number and their derivative milk production. It is obvious that for the rapid growth of milk production which Ukrainian dairy industry needs, there should appear a strong prerequisite. Such a prerequisite can be the adoption of legislative documents on creating some special economic conditions for development of the existing and creation of new industrial dairy farms. Milk production should become super profitable against the background of other types of agricultural activities.
- The descending trend in milk production in households is obvious and nothing indicates the possibility of its positive changes. It is hard to count on the role of the family farms in quick growth of the milk production. In any case, for industrial (not craft) milk processing, the rate of production growth that family farms can provide do not solve the problem of the shortage of quality raw milk supply to dairy enterprises.
- The real way to avoid further deterioration of the shortage of quality raw milk that processing industry suffers, is the state guarantee of the economic benefits to those who wish to invest in dairy farming. The financial state support, given that the country is at war, seems unlikely in the short term. And if such an opportunity is found, it will be a pleasant bonus.

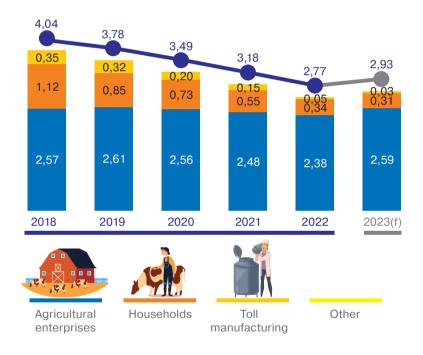
# **RAW MILK** Livestock. Cow productivity. Milk production



Due to the growth in cows' productivity, in 2023 milk production in agricultural enterprises may increase by 7% to record high figures for the last 20 years.
The number of cows in households is constantly reducing. Milk production in this category is rapidly decreasing and the negative trend cannot be stopped.

# DAIRY PROCESSING. MILK PROCUREMENT 2018-2023

### MILK PROCUREMENT BY CATEGORY OF SUPPLIER million tons/share



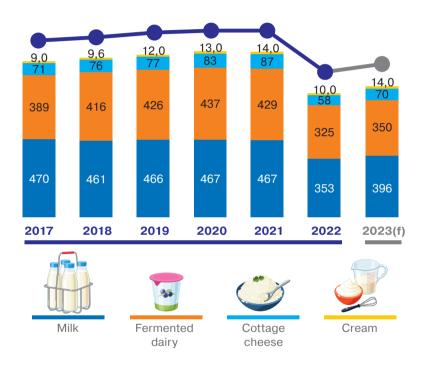
• In Ukraine the volume of milk directed for processing has been steadily falling over a long period of time. In 2022, the trend was strengthened by the war.

• In 2023, despite many problems, Ukrainian dairies will process by 7% more milk than last year, but it is significantly less than in the pre-war years. Growth occurs exclusively at the expense of growth of milk supplied by agricultural enterprises, the share of the population in milk supplies is already small.

# **DAIRY PRODUCTION**

### **FRESH DAIRY PRODUCTS**

Production dynamics by product type (thou. t)



• Last year, after a certain period of stable growth, the production of fresh dairy products decreased the most significantly among all products due to a decrease in consumption.

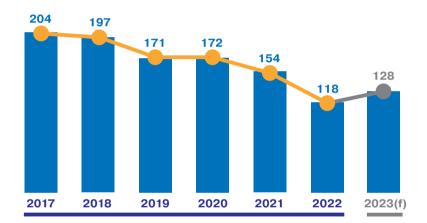
• This year, production of all types of fresh dairy products has noticeably recovered, but it is still far from the pre-war level. A few years must pass to reach the pre-war level.

**DAIRY BUSINESS 2023** 

# **DAIRY PRODUCTION**



RENNET CHEESE. CHEESE PRODUCTS Production dynamics (thou. t)

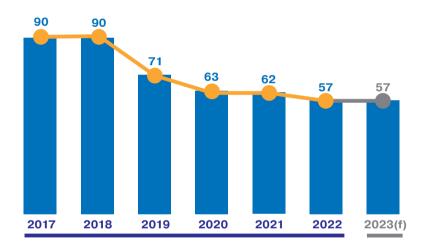


Until 2022, cheese production was decreasing mainly due to the increase in imports on the Ukrainian market. Last year imports decreased significantly, but consumption decreased even more, so production volume had to be reduced.
In the current year, consumption is recovering, imports have not yet increased, cheese production is growing.

# **DAIRY PRODUCTION**

**BUTTER** Production dynamics (thou. t)





Production of butter is unstable due to various factors. Last year, despite the reduction in output, there were large surpluses of butter for exports.
 In 2022, production of butter will remain at last year's level, exports will de-

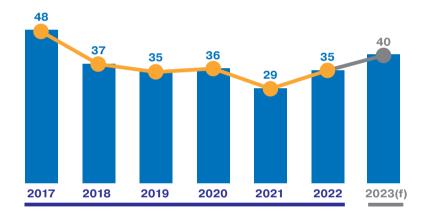
• In 2023, production of butter will remain at last year's level, exports will decrease, but there will be a certain shortage of the product in the off-season.

**DAIRY BUSINESS 2023** 

# **DAIRY PRODUCTION**



SMP Production dynamics (thou. t)



• Before the war, production of milk had been steadily decreasing. In 2022, a surplus of raw milk appeared and it was directed to production of milk powder for export. As a result, production of skimmed milk powder increased.

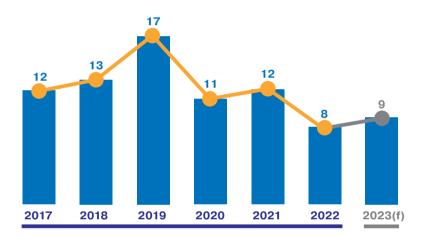
• The trend towards an increase in production of SMP is also being observed in 2023. Later we should again expect a drop in production volume.

# **DAIRY PRODUCTION**

### WMP

**Production dynamics (thou. t)** 





• Because of the occupation of the region where powerful producers had worked, in 2022 production of WMP significantly decreased.

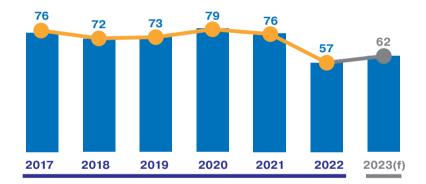
• This year production of WMP will increase, but not significantly, the demand and the prices are low.

DAIRY BUSINESS 2023

# **DAIRY PRODUCTION**



CANNED MILK Production dynamics (thou. t)

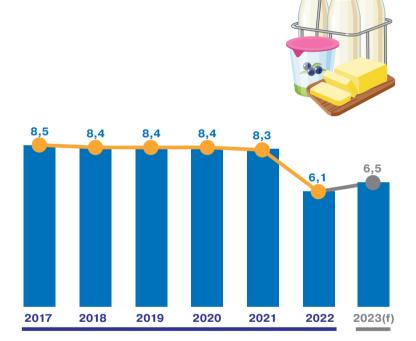


• In 2022, due to the loss of a significant part of foreign sales markets, production of condensed milk significantly decreased.

• In 2023, production of condensed milk will increase, but only at the expense of significant domestic consumption.

# **CONSUMPTION** TOTAL DAIRY CONSUMPTION IN MILK EQUIVALENT

### DYNAMICS OF DAIRY CONSUMPTION (million tons)



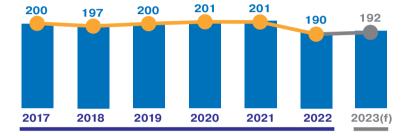
• During the war, milk consumption in Ukraine has significantly decreased, both overall and per capita consumption.

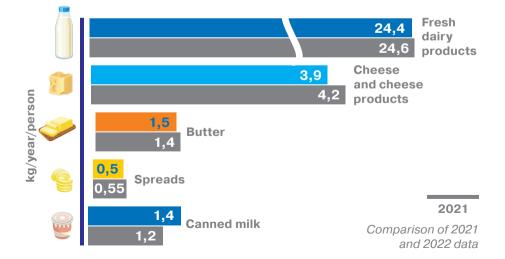
• Taking into account the real number of the population regularly living in Ukraine, the fall in the consumption of industrially produced dairy products is not so big, an average Ukrainian bought even more of certain products than before the war.

## CONSUMPTION PER CAPITA

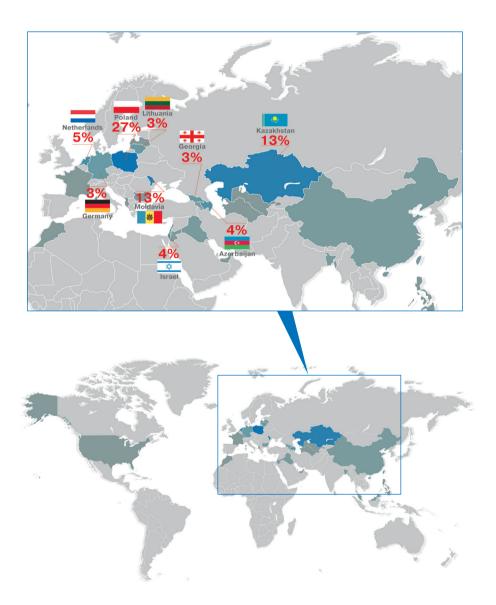
DYNAMICS 2017-2023 (kg/year/person)







# DAIRY EXPORT 2022



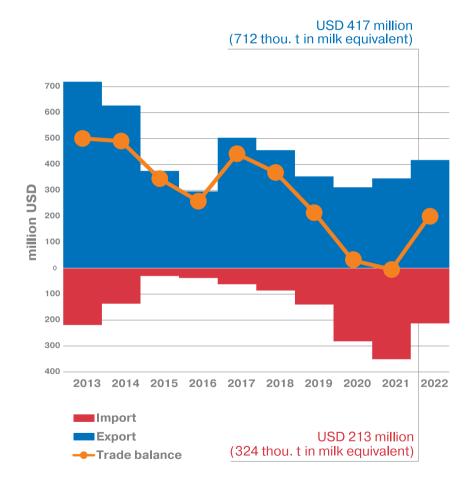
DAIRY BUSINESS 2023

# **DAIRY IMPORT 2022**



### DAIRY DYNAMICS EXPORT AND IMPORT

### TOTAL EXPORT AND IMPORT



### PRICES MILK PROCUREMENT

RAW MILK Dynamics of purchase price – enterprises (industrial farms)

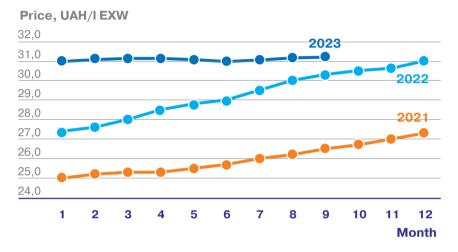


RAW MILK Dynamics of purchase price – households



### **PRICES** DOMESTIC SALE DAIRY PRODUCTS

### **PACTEURIZED MILK (2,5%, POUCHES)** Dymanics of the wholesale prices



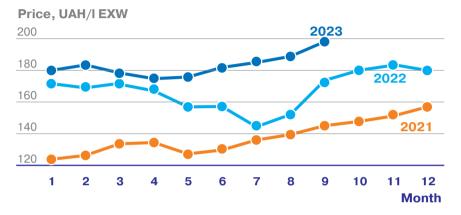
### **SOUR CREAM (15%, POUCHES)** Dymanics of the wholesale prices



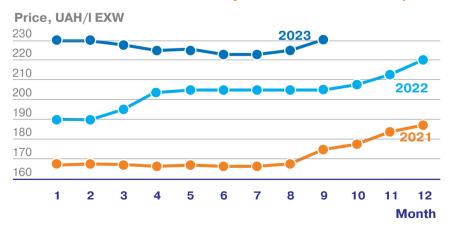
DAIRY BUSINESS 2023

# **PRICES** DOMESTIC SALE DAIRY PRODUCTS

«SELYANSKE» BUTTER Dymanics of the wholesale prices

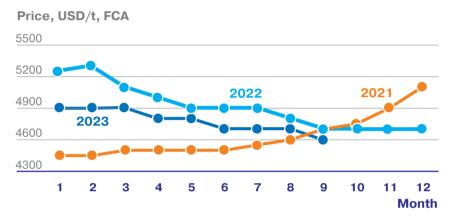


**TRADITIONAL CHEESE** Dymanics of the wholesale prices



# **PRICES** KEY DAIRY EXPORT PRODUCTS OF UKRAINE

### CHEESE (TRADITIONAL TYPES 40-45%) Dynamics of export prices



### **BUTTER, 82% Dynamics of export prices**

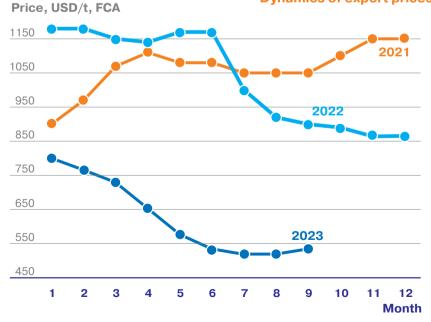


# **PRICES** KEY DAIRY EXPORT PRODUCTS OF UKRAINE

SMP Dynamics of export prices



WHEY POWDER Dynamics of export prices



32 грудня 18:00

файли презентацій будуть доступні делегатам конференції тут:

Presentations will be available since 2 December 18:00



