

BELAGRO-2024

A UNIQUE PLATFORM WHERE THE WHOLE WORLD SAW HOW WE GROW BREAD



From June 4th to 9th, it was possible to get acquainted with the achievements in the development of crop production, livestock and poultry farming, modern technologies for processing, packaging and storage of products, as well as a variety of agricultural machinery at a new site in the exhibition centre of the Chinese-Belarusian Great Stone Industrial Park.

By the way, during the grand opening of the agro-industrial exhibition, First Deputy Minister of Agriculture and Food Sergei Fedchenko said that Belagro is a unique platform that demonstrates the achievements of the Belarusian agro-industrial complex in recent years.

A lot has been done in the agro-industrial complex, noted Sergei Fedchenko, "We ensure almost 100% food security in Belarus, we occupy 97th place in the world in terms of population and 84th in terms of territory. At the same time, our country is among the top five exporters of dairy products and the top 15 exporters of meat and meat products. Our country is one of the world leaders in the production of agricultural products per capita. Such results were achieved with the support of the state and thanks to the personal attention of the President. We must not forget about the hard work of farmers. In addition, the Ministry of Industry, scientists and specialists of the National Academy of Sciences of Belarus helped us."

It is impossible to move forward without science in any field, especially in agriculture. "Now Belagro demonstrates everything that is used in our fields and farms. We also indicate developments that will be used in the future in the agro-industrial complex to popularise Belarusian products and agriculture in general," emphasised Sergei Fedchenko.

He added that, thanks to the efforts of the Ministry of Industry, Belarus can completely abandon the import of agricultural machinery and equipment in order to switch to its own. "Today we are offered a full range of machines and mechanisms in order to do everything technologically in crop production and livestock farming," said the First Deputy Minister of Agriculture and Food.

According to him, the issue of precision farming is still at the beginning. In the future, minimal use of human labour and savings in resources currently used in agriculture are predicted.

The exhibition acquired international status. This year companies from 11 countries took part in it. "There was a business programme during which issues of selection, seed production, livestock breeding, agriculture, agricultural education and science were discussed. The exhibition itself is traditionally filled with various presentations, reviews, competitions, cultural and sporting events," says the First Deputy Minister.

What was presented and what was bought?

Everyone involved in agriculture is interested in what's new on the market and what mechanical engineers are working on: what new technologies are being used today and what to expect tomorrow? What else is an idea today and what will we see in new agricultural machinery in the near future? All these questions could be answered by visiting Belagro.



Widely presented at the exhibition are fertilizers and plant protection products, equipment for applying fertilizers, for harvesting grain and preparing feed, machines for reclamation work, growing and harvesting potatoes, sugar beets and other vegetables. Agricultural products, machines, and equipment are demonstrated in a processing chain with modern energy-saving technologies from all industries related to both the production of products and their processing, transportation, storage and sales.

The Belferma exposition of the exhibition demonstrates the latest achievements in the field of animal husbandry, animal feeders and equipment for the maintenance of animals, cage equipment and incubators, automated plants for dairy farms. At the exhibition it was also possible to get

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acquainted with the automated herd management system; milking machines of various modifications; milk cooling units, both stationary and mobile for work on pastures. Here they show new feed and feed additives, veterinary drugs and medicines, new technologies in bioenergy, including energy equipment and its software.

Every year, both specialists and young visitors to the exhibition show great interest in visiting the Fishing Village, organised by Belvodkhoz. About 150 Belarusian producers presented a wide range of food products: sausages, semi-finished meat products, poultry, dairy products, canned foods, groceries, baby and diet food, bakery products and much more. Food industry enterprises delight exhibition visitors with tastings of their products.

Vegetable producers formed a separate exhibition in the open area. Visitors to the exhibition had the opportunity not only to get acquainted with new varieties of vegetables grown in our country, but also to purchase them.

During the exhibition, the Champion of Taste tasting competition, Competition for the Best Breeding Cow, the Best Breeding Horse competition, the Best Ploughman competition, an exhibition of farm animals,

demonstrations of equipment and other events were held. Traditionally, the emphasis is on innovations at Belagro 2024. Along with traditional exhibits, innovative products, advanced solutions and technologies were demonstrated. The agricultural forum traditionally brings together not only Belarusian farmers and workers in the food and processing industries, but also their foreign colleagues and partners. This year, 490 companies from Belarus, Russia, Kyrgyzstan, Kazakhstan, Mongolia, Germany, China, Pakistan, Türkiye, Vietnam, and Palestine are taking part in the exhibition. The business programme includes about 20 thematic conferences and workshops.

During the Belarusian Agricultural and Industrial Week, we saw, touched and tried a lot of things. Now we share our impressions.

Favourite tractor already with gas

Vasily Gnedchik, a leading specialist in advertising and exhibitions at Minsk Tractor Works, can talk about equipment for hours, but there are special 'commodity items' among them.



The Russian Federation has inexhaustible reserves of gas fuel. It is almost two times cheaper than diesel fuel. Therefore, according to economic feasibility, it is necessary to gasify not only passenger cars, but also agricultural machinery.

Vasily Gnedchik showed us a fairly large tractor with a capacity of 210 horsepower, which has a gas engine installed. This is a purely gas mechanism that runs on liquefied gas. That is, the gas-air mixture is supplied to the cylinder, where it is ignited with the help of a spark plug, as in a gasoline engine. This gives the advantage of faster acceleration and power, unlike a diesel engine. The only difference between this tractor is the presence of two liquefied gas cylinders, which are designed for uninterrupted operation for 8 hours in field conditions.

The specialist notes that gas in our country is not the most accessible and cheap. But this is not the main thing; this topic is not very developed in Belarus due to the fact that in our countryside gas stations are not as common as in cities.

In the neighbouring country today there is a real boom in the use of blue fuel; active construction of a large network of gas fuel stations directly in rural areas is underway. For example, today in Tatarstan there is a massive conversion of diesel tractors to gas ones.

Vasily Gnedchik expects that this exhibition will be visited by representatives of different countries, including gas producers. Specialists should be interested in our developments, because our tractor does not need to be specially converted, which means it wins in terms of product quality and even price. Our plant can already

accept orders for the production of 500 units of such equipment per year. We need to negotiate and provide partial funding now.

According to ancient recipes

Have you ever seen a loaf of bread the size of a large straw hat? As for me, I hadn't seen anything like that before I became acquainted with the products of the Domochai Bakery and Confectionery Company. Nelly Bekasova, Deputy General Director for Commercial Affairs of this enterprise, noted that they keep their secret recipes behind seven seals. She believes that ancient Slavic developments are the healthiest and tastiest. You just have to try.

However, they also know how to make new products here. For example, just in time for the exhibition, the company made some bread with pieces of lard. You can have this bread with lard and feel full. For connoisseurs, there was bread with cranberries, with halves of grapes, with maple leaves and with smoked tomatoes. There were breads with flax seeds, carrots, spinach and turmeric, and sometimes even buckwheat.

But the most unique bread was the giant one, which weighed more than two kilograms. It was made from two types of dough — rye and premium wheat. This bread is kneaded exclusively by hand in order to create an artistic structure and colour when cut.

Step towards the future through big wheels

Sales specialist of the Biocom Technology innovative company Viktor Mironov presented an assembly unit for agricultural machinery. He showed us a special sprayer

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with pesticides and materials for treating plants (chemical weeding and fertilizing). The machine that was brought to the exhibition is a self-propelled unit with a 24-meter gripper bar. The machine independently sees where it has already cultivated the soil and those corresponding nozzles will not turn on. The main irrigation material hopper holds 4 thousand litres and an additional tank for clean water holds 600 litres. The entire water system of the machine is supplied to our country from Italy, the chassis is from Iveko, and the hydraulic component comes to us from France.

The cabin of the machine has a fourth class of protection, where excess air is pumped into it and there is a carbon filter. The sprayer is produced in our country under license from manufacturers in Western countries. We produce some elements of non-key mechanisms ourselves (a 4-thousand-litre tank and protection elements). At the



moment, we are not interfering with either electronics or hydraulics, Victor Mironov emphasised.

The sanctions policy of Western countries at one time made the employees of this company worry. Today, not all problematic issues have been resolved, but... Businesses of our countries are confident that we should cooperate and, therefore, a domestically assembled spraying machine is produced in our territory.

Does the quality of a cow's sleep determine the taste of the milk?

We all know a priori that in order for a cow to give a lot of milk, it must be well fed. But that's not all. The comfort of animals directly affects their productivity. Domestic scientists have proven that in a properly designed stall, cows rest for 12 hours a day, and in an uncomfortable stall — no more than seven, and every additional hour a cow lies down (on a full stomach) is another 1 litre of milk. That is, the difference between the good and bad condition of the 'bed' for a cow is from 3 to 5 litres of milk per day. According to **Iosif Polkhovsky, Deputy Director for Agriculture at the Ecoprodshina enterprise of the Brestmyasomolprom concern**, cow beds are already made in the form of mats made of propylene fabric, and rubber granules with elements of textile cord are used as fillers.

It is noteworthy that rubber granules come to the enterprise from all over the country as rubber from car tires, which must be disposed of.

It has already been tested in practice that, in terms of their parameters, the mats recreate the conditions of a pasture and in terms of density correspond to natural soil. And in a comfortable lying position, 50% more blood passes through the udder than in a standing position, which increases the quality and quantity of milk.

Using advanced technology, the mats are laid on a concrete surface with a slight slope and covered with a



layer of polypropylene fabric, the service life of which is more than 10 years. The total thickness of the mat is up to 15 centimetres. Iosif Polkhovsky notes that the special surface texture of the upper material ensures that the cow does not slip. Thanks to the soft surface, animals do not damage their knees and joints when they are lowering down to rest. As a result, injuries are reduced and the cows behave calmly. They feel better in the stall and experience less stress, which has a positive effect on milk yield.

According to the expert, at one time similar mattresses for cattle were purchased in Western countries, but they were very expensive. Today it has been possible to carry out import substitution, when the production of one cattle stall is estimated at 370-390 roubles, or several times cheaper than from imported manufacturers.

Circassian cheese from Adygea

Chef from the Ministry of Agriculture of the Russian Federation Vladimir Zhilin invited all guests of our exhibition to taste Crimean wines (a few drops each) and products that took part in the central competition of this country — Tastes of Russia. Among the best products of this competition, we were treated to Belyovskaya pastila, Circassian cheese, Stavropol apples and Bashkir honey. A little later we will be given the chance to try Dagestan lamb and Volgograd butter.

Choosing products from the regions, Vladimir Zhilin noted Circassian cheese, which has become a national dish of Circassian cuisine, made only from cow's milk.

It became a brand in 1980, when its mass industrial production began. The expert noted that real Circassian cheese smells like fresh milk and wildflowers, is a dietary food product and has high nutritional value. In addition, Circassian cheese was supplied to the 1980 Summer Olympics, and now it adorns the exposition at the Belarusian exhibition, a specialist from Russia emphasised.

Cherry tomatoes ripen right before your eyes

Agrochemist of the Rudakovo unitary enterprise

Svetlana Volkova came to the exhibition from the Vitebsk Region. They brought a mini-greenhouse to the exhibition to show how vegetable crops, including tomatoes and cucumbers, can be grown under industrial conditions. The technology of growing on mineral wool, which receives a solution of nutrients. Drip irrigation and CO2 fertilizing are used. Each meter of such a greenhouse produces up to 50 kilograms of small and tasty tomatoes per season.

The start growing tomatoes in early January and end in the last ten days of November. They get the first red fruits here at the end of March, but... Recently, our enterprises have begun to experiment with special lighting. If the experiment shows positive results, then the enterprise will switch to growing vegetables and green crops year-round.

Sergei Kurkach
Photo by Viktor Ivanchikov