

As part of our commitment to responsible farming, we produce environmentally friendly fertilizers that are used to grow safe food. This is how we care about the environment and human health.

PhosAgro has developed new product brands and appropriate packaging. Fertilizer packaging has a new design that reflects the idea of environmental friendliness and shared values of the "green" standard. The concept was presented by the General Director of PhosAgro PJSC Andrey Guryev at the Golden Fall exhibition.

APA symbolizes the mineral apatite, VIVA—life, environmental friendliness.

Thus, almost all product names start with APA, because the fertilizers in this category contain phosphorus. The nitrogen group NITRIVA is added to them.

Product Advantages

In addition to environmental friendliness—the absence of harmful admixture concentrations, PhosAgro fertilizers have a number of other advantages:

- high concentration of primary nutrients in the granule;
- sulphate sulfur;
- high static strength of the pellets and their spherical shape;
- homogeneous particle size distribution (average diameter of 3.2 mm);
- pellets do not dust, and are not prone to compaction or caking;
- they retain their properties during prolonged storage, which ensures easy application to the soil.

APAVIVA—nitrogen-phosphate and complex fertilizers. Almost all PhosAgro complex fertilizers contain sulfur, which is necessary for cabbage, industrial and grain crops.

APAVIVA+—nitrogen-phosphate and complex fertilizers with micronutrients. A number of crops are particularly sensitive micronutrient deficiency. That is why we have created an appropriate line of fertilizers.

NITRIVA—nitrogen fertilizers. A source of readily available nitrogen for plants. Effectively applied on all types of soils and for all crops.

APAFEED—fodder monocalcium phosphate. Additive to the diet of animals and poultry to supplement the lack of phosphorus and calcium. It boosts metabolism, strengthening the bone, immune and reproductive systems.

NITRIVA Feed—fodder urea. Effective protein supplement for cattle and sheep feed. It contributes to an increase in milk yield and effective muscle building in meat breeds.

APALIQUA—liquid complex fertilizers. Effective in use, as they are mixed with other fertilizers. Each droplet of the solution contains the same amount of components. Fertilizers in this category ensure a more precise and uniform introduction of phosphorus in the soil.



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ENVIRONMENTAL FRIENDLINESS IN EVERY DETAIL—FROM ORE TO FOOD

Golden Fall exhibition saw the start of the project to introduce the "Green Brand" of the country, which will be used to label agricultural products with improved environmental characteristics produced in Russia. Eco-labeling for Russian mineral fertilizers was also presented.



The symbol of a green ear of wheat in a circle will confirm the environmental purity of Russian fertilizers—those that do not contain concentrations of heavy metals, primarily cadmium.

Eco-labeling of mineral fertilizers will be an integral part of the country brand of green products.

It was demonstrated to Dmitry Medvedev, Alexey Gordeev and Dmitry Patrushev by General Director of PhosAgro PJSC Andrey Guryev, President of the Russian Fertilizer Producers Association.

It is assumed that at the first stage, the labeling will apply to Russian phosphate and complex mineral fertilizers that have been certified for compliance with national standards.

Subsequently, other types of mineral fertilizers and soil conditioners will be subject to certification.

"This year's eco-labeling will create additional competitive advantages when promoting Russian fertilizers abroad," Andrey Guryev is convinced. "Since the labeling is also intended to support the demand for Russian food in global markets and stimulate the growth of non-resource exports of agro-industrial complex products, in the future, the mark will be applied to food products made from crops that were grown using only environmentally friendly fertilizers".

Assistant to the President of the Russian Federation Andrey Fursenko noted that one of the dangerous consequences of human agrarian activity is the accumulation of toxic substances from fertilizers

that farmers apply to soils, therefore, the world community must be informed of the risks of using fertilizers with a high content of heavy metals, in particular cadmium.

"I would like to emphasize an extremely important initiative of PhosAgro, which has pointed out this issue. Not only did it point out but it also brought this issue to the attention of the world community. This leadership costs dearly," said the Assistant to the President of the Russian Federation.

As a producer of environmentally friendly, heavy metal-free fertilizers, PhosAgro contributes to the safety of

Phosphates, a program aimed at sharing knowledge and addressing issues related to heavy metals, high concentrations of which are contained in phosphate fertilizers from a number of foreign manufacturers and affect human health.

PhosAgro has also been closely cooperating with UNESCO and IUPAC in the Green Chemistry for Life project for many years. The project provides financial and scientific support to promising young scientists from all over the world who are engaged in the development of new advanced green chemistry technologies to address environmental and health issues, food, energy efficiency, and natural resource management. Over the five years of the program's implementation, more than 600 applications have been reviewed, 34 young scientists from 26 countries have won money prizes, and grants worth about \$2 million have been awarded. Green Chemistry was the first project in the history of UNESCO and the UN to be funded by the Russian business. PhosAgro also supports the IUPAC Green Chemistry Summer Schools project, aimed at helping young scientists from developing countries.

As one of the world's largest phosphate fertilizer producers, PhosAgro feels responsible for ensuring food security. PhosAgro is a major supplier of fertilizers both in Russia, where the company is the largest fertilizer producer and globally, supplying nutrients for agricultural production to farmers in 102 countries.

The exceptional purity of the Kola Peninsula ore will now be reflected in a special



Presentation of eco-labels at the Golden Fall agricultural exhibition

PhosAgro Fertilizers are produced from magmatic phosphate ore of exceptional purity. They are free of toxic substances, which allows farmers to grow products that are safe for human health without harming the soil.

eco-label, which was supported by members of the Russian Fertilizer Producers Association, whose president is Andrey Guryev.

This is particularly important in the light of growing worldwide concern about the heavy metal contained in the products of a number of foreign mineral fertilizer producers.

This May, the European Union adopted a regulation on cadmium. They recognized that cadmium from fertilizers accumulates in the soil, it enters the human body via food and is not excreted from the body, causing serious diseases. Starting from 2022, the EU will prohibit the circulation of phosphate fertilizers with cadmium content above 60 mg/kg. The French Agency for Food, Environmental and Occupational Health & Safety, which is the

largest consumer of phosphate fertilizers in Europe, has issued a recommendation in which it strictly decreed that from now on the level should be sharply reduced to 20 mg or less in order to remove this carcinogenic metal from human bodies, from the soil, from water, from crops where it enters with fertilizers.

The ecological safety of fertilizers provides Russian agriculture with a unique opportunity to immediately label their products as the most environmentally friendly in the world. We can only be happy for domestic farmers: they, in fact, already have a huge competitive advantage over colleagues from other countries.

The purity of Russian fertilizers is the backbone of the Green Brand of Russian agricultural products, which guarantees the traceability of environmental safety of the new

agricultural segment products across the entire production line, ranging from the raw material base of the Russian fertilizer industry for crop producers and mineral fodder additives for cattle breeding to the sale of food to the end consumer.



"This is a decisive step towards the ultimate goal of providing the population of not only Russia but the whole world with high-quality and safe food. In cooperation with the Food and Agriculture Organization of the United Nations, PhosAgro has already initiated work to recognize the "green" standard as a global quality benchmark," Sergey Pronin, PhosAgro PJSC Deputy General Director for Sales and Marketing, emphasized.

