

Protein-Vitamin Flour – innovative healthy product of OJSC «PAVA»



It is not in vain that people often say «Bread is at the head of everything». Flour and food products made of flour constitute the basis of the diet in the majority of countries all over the world. The attitude to bread and its properties has been changing dramatically throughout the history of the mankind. It used to be considered that the whiter the bread is the better. Striving for whiteness, millers were trying hard to free flour from all the so-called “ballast substances”, at the same time removing all the most nutritious elements: proteins, vitamins, minerals and fiber from it.

Wishing to bring the most valuable matters contained in the grain back to the end product, this year OJSC “PAVA” launched the production of unique protein-vitamin wheat flour according to an original technology, which allows preserving all proteins, fats, micro and macro elements, vitamins and fibers, which have been put into the grain by nature.

Manufacturing technology overview:

It is well known that wheat kernel consists of three main parts such as wheat germ, endosperm and coats which have sophisticated microstructure. The part of wheat which has remained underestimated until today is aleuronic layer of wheat kernel endosperm. Aleuronic layer consists of protein up to 40-50% and preserves significant quantity of minerals (10-13%), fat (10%), sugars 15%, pentosan and fiber 15% as well as water-soluble vitamins of B group (B₁, B₂, B₆), PP and fat-soluble vitamin E (tocopherol) and β-carotin.

Aleuronic layer and coats are not used in the traditional manufacturing process of regular flour grades due to the high content of fiber which is hard to be grinded.

Updated grinding technology – innovation of PAVA Company allows grinding aleuronic layer into valuable flour naturally enriched with nutrients, vitamins and microelements which have salutary effect on the human body.

B₁ – thiamine strengthens the nervous system;

B₂ – riboflavin helps to generate red blood cells in the bone marrow;

PP – niacin (B₃) is as useful for the brain cells as calcium for bones;

E – tokopherol is a strong antioxidant, it has positive effect on heart, kidneys, helps to cure thrombophlebitis, diabetic infarction.



Comparison table of chemical composition of wheat flour, wheat germ meal, wheat germ oil (according to reference data, and sample analyses)

Chemical composition	Wheat Flour of High Grade	Wheat Flour of First Grade	Wheat Flour of Second Grade	Wholemeal Wheat Flour	Wheat flour "Zhitnitsa"
					PAVA
Moisture %	14,00	14,00	14,00	14,00	14,00
Protein %	10,3	10,6	11,7	12,5	15
Carbohydrate %	74,2	73,2	70,8	68,2	62,2
Fiber %	0,1	0,2	0,6	1,9	11,3
Ash %	0,5	0,7	1,1	1,5	2,00
Mineral elements, mg					
%: Iron	1,2	2,1	3,3	4,1	16,00
Vitamin, mg					
%					
B1	0,17	0,25	0,37	0,41	8,00
B2	0,08	0,12	0,14	0,19	8,00
PP	1,2	2,2	2,87	4,5	4,7
E					2,3

Comparison table of chemical composition of different flour grades shows that protein –vitamin flour has significant advantages in comparison with traditional flour grades as it has strong benefits for health due to high content of vitamins. Regular consumption of the products made of this flour covers overall need of human organism in iron and one-third need in vitamins E и PP.



Health Benefits: thus all the irreplaceable amino acids are perfectly balanced in our protein-vitamin flour, which makes the protein in the bread made of this flour to be easily digestible. Besides, high content of fiber gives the bread a great quality to prevent heart and cancer diseases. Fiber quickly satisfies hunger without overloading the body with extra calories and helps to remove toxins and radionuclides out of the system, while complex carbohydrates and plant protein sate the body with energy.

Due to the fact that in the production process of the protein-vitamin flour all the valuable parts of the grain are used, the carbohydrates in the flour are slowly digestible, that is why the

level of sugar in the blood doesn't exceed the accepted limits, which secures normal carbohydrate metabolism.

It's well-known that quality of the final product depends greatly on the quality of the raw material. All the grain for production of protein-vitamin is grown in the Altai Territory – ecological sanctuary of Russia. Ecologically clean grain is immunity benefit for your health.

ПАВА

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Bread made of protein-vitamin flour is a great choice for people who are willing to keep fit without resorting to exhausting physical activities or food supplements. Including bread baked of the protein-vitamin flour into the diet increases the resistance of the body to different ailments and negative influences of the environment and helps to stimulate cardio-vascular system. This product can be recommended not only as a valuable wholesome product for all groups of population, but also as the one having medicinal effect on those suffering from obesity, diabetes and atherosclerosis. It also helps to remove salts of heavy metals and radioactive elements from the body system.

But baking bread is not the only way where protein-vitamin flour can reveal its wonderful qualities. Special grinding allows using it in preparation of a traditional Russian dish – «flour» gruel named "solomat". Solomat is a dish of ancient Russia. The first mentioning of it is found in written sources of XV century. The word "solomat", meaning «health», was accepted from Turkic languages.

«SOLOMAT» GRUEL

Ingredients:

- 1 l milk,
- 100 g protein-vitamin flour,
- salt.

Recipe: boil 3/4 l of slightly salted milk. Pour flour into the rest of the milk and stir carefully, then pour the mixture into the boiling milk and stir occasionally boiling for 10 minutes.

Serve with sugar, fruity syrup or together with fried onions. It's desirable to serve butter, hard boiled egg, and also fruits and vegetables together with the gruel.

Pricing:

One more advantage of the protein-vitamin flour is its price. Using soft wheat and contemporary technologies in the production process reduces the cost of the product while the quality of it remains exceptionally high.

Extraordinary nutritious properties at a very affordable price make it possible to consider the protein-vitamin flour from OJSC "PAVA" as a conceptually new product called to solve food procurement problems in developing countries.

PAVA Company Staff believes that advantages of Protein-Vitamin flour are convincing in practice!

We are looking forward to fruitful cooperation with you!