



# GRAINS AND OILSEEDS



# GRAIN DIRECTION

Grain direction is a starting point in high-quality pork, chicken and beef production. Animal diet should include a balanced mixture of grain to get a perfect meat with corresponding to the highest quality standards marbling. And we are pleased to inform you that we produce grain independently.

- The cultivated area stands at **238,802** hectares now
- Total investments are more than **80 000 000** USD
- The production volume is more than **1 100 000** thousand tons of grains and oilseeds per year
- The capacity for simultaneous storage is more than **600** thousand tons.

Production sites of Bryansk – Belgorod – Kursk are close to Europe in terms of cars and rail logistics, as well as to the main Russian ports (Novorossiysk, Rostov, Azov, Astrakhan), and also to the Baltic ones: Liepaja, Klaipeda. And also Kaliningrad – the western-most port in Russia.



## LOCATION:

BELGOROD REGION,  
BRYANSK REGION,  
KURSK REGION,  
ORIOLO REGION,  
KALININGRAD REGION,  
TULA REGION,  
SMOLENSK REGION,  
KALUGA REGION



# PRODUCTS



**MILLING AND FEED WHEAT:** Wheat provides energy from carbohydrates as starch, cellulose, hemicelluloses, pentosans, dextrins and sugars. Wheat contains 1.27 caloricity units and 120 g. of digestible protein per 1 kg so here it is second to none. Therefore, be sure to include wheat in the diets of all kinds of farm animals and poultry. In winter wheat feeding of animals gives extra warmth to them.



**YELLOW PEAS:** Peas are one of the most cold-tolerant crops. It can withstand freezing with the appearance of seedlings up to  $-6^{\circ}\text{C}$ , so it can be sown in early spring. Peas are the richest source of protein among vegetable crops. Protein of peas is similar to proteins of meat, because it contains a number of essential amino acids, but peas protein is much easier to digest.



**TRITICALE:** Being an amphidiploid of rye and wheat it gathered the best of their properties. It is used as food and fodder crop, it has a high frost resistance, resistance to fungal and viral diseases and low insistence to soil fertility. Triticale contains: water – 14.0%, protein – 12.8%, carbohydrates – 68.6%, fats – 1.5%, fiber – 3.1%, Ash – 2.0% and compares favorably among cereals for through good biochemical parameters and technological parameters of grain quality.



**CORN:** One of the major grain and forage crops. Corn grain has high feed advantages. It contains about 10.5% of protein, 66% of nitrogen-free extractives, 6.5% of fat, 1.5% of ash, 2.5% of fiber, 14–15% of water, and vitamins. Corn is a feed concentrate for all farm animals, as well as a good source of carotene, which promotes an egg yolk and fat pigmentation. In adult chickens diets the optimum corn level is 40–50%. Also a crushed corn can be included into diets of young chickens in an amount of 30–40%.



**BARLEY:** It is different in optimal ratio of protein (15.5%) and carbohydrates (75%). Also has a relatively small amount of starch and cellulose (up to 9%), and in its quantity barley is superior to the most of cereals. It has water-soluble B vitamins (B1, B2, B3, B4 (choline), B6, B8 (biotin), B9), fat-soluble vitamins E, A, D, as well as a wide range of essential macro and trace elements (silicon phosphorus, potassium, calcium, magnesium, nickel, sulfur, manganese, selenium, iodine, zinc, bromine, copper, cobalt, chromium, fluorine and the others.). Also, to get nice smooth malt, you must have monosort in the each batch. Through the cultivation of large areas we get true-bred barley, which is our pride.





**RAPE SEEDS:** Rapeseed is the most important source of cheap vegetable oil and high-protein feed. It contains 40–44% of oil, 18–22% of protein, and 7.6% of fat. Furthermore, rapeseeds is considered to be a good pasture crop for pigs and sheep, as it grows rapidly and it is rich in protein, which includes sulfur. Rapeseeds sheep grazing reduces illness frequency and increases wool and meat yield. After being processed to get oil, it gives rather full-fledged by both protein quantity and quality rapeseed meal and cakes. Its protein, as well as soy protein, is similar in structure to the protein of eggs, milk and butter.



**SWEET LUPIN:** Lupin is a complete protein – about 50% and 20% of oil containing a lot of polyunsaturated acids. Various vitamins are included: PP, A, B1, B2, B3, B6, C, and also it has a rich spectrum of mineral salts: potassium, iron, zinc, copper, calcium, selenium, manganese. There is an abundance of polyunsaturated fatty acids (5–20%), protein mass reaches 40%, and carbohydrates (7.5 g), ash (1.2 g), dietary fiber (4.3 g).



**SUNFLOWER:** sunflower plant is typical of the steppe and forest-steppe zone. It has a high plasticity, which allows it to be cultivated in different climates. In Russia about 70% of all world crops are concentrated. Cultivated in Russia sunflower is the basic olive culture for edible and industrial oils seeds.



**SOYBEAN:** Soy is a high-caloric, high-protein, versatile food, perfect for all kinds of animals and birds. It has a high feeding value. It makes up for the deficit of protein and amino acids in animal nutrition, the lack of which is a major cause of low productivity. Protein is about 40% of the total weight of each seed.



**SOYBEAN OIL:** In its composition it has vitamin E, vitamin C, sodium, calcium, potassium, magnesium, lecithin, fatty acid and phosphorus, which are necessary for immunity and proper metabolism. Being a part of the oil linoleic acid prevents carcinogenesis. This product is absorbed almost for 100%



**SOYBEAN CAKE:** thanks to its high content of quality protein soybean cake has good nutritive value and is actively used in poultry and cattle breeding as the main nutrition element. The biological value of it is only slightly inferior to much more expensive additives such as doji fodder, meat and bone and fish meal. Compared with other types of meal, soy product significantly exceeds the content of digestible protein and B vitamins, second only to the content of the mass fraction of fat.



# HOW WE WORK

Miratorg grain companies employs highly qualified specialists, who annually visit breeding centers for the selection of new seeds varieties to improve the quality of cultivated products. Due to this the company managed to achieve the yield of 59.67 c / ha. The company is actively using all possible grain storage decisions – elevators, warehouses, as well as grain bags (sleeves)

Tillage is carried following the classical scheme “No-Till” (soil conservation techniques), which is used by the world’s leading manufacturers and allows to save resources and improve the profitability of production. As a result, Miratorg’s productivity significantly exceeds the average.

The enterprise controls the product quality from the very beginning to the very end: from regular monitoring in Miratorg laboratories (seed and soil quality) to the grain quality (oilseeds and legumes). Miratorg uses only NOT GMO seeds because we also feed our own animals with this grain.







Miratorg agribusiness complex was founded in 1995 and today it is acknowledged as a leader of the Russian agro-industrial economy sector. For more than 20 years the company introduces the most advanced and modern production standards.

Companies of the holding carry out a complete production cycle – from field to counter. This organizational structure provides the opportunity to be independent of various commodity markets conditions and price changes for certain types of raw materials. It also makes possible to optimize production costs and minimize risks. Vertical integration allows Miratorg to control product quality and ensure maximum efficiency at all stages of production.

Holding shows high production and financial results through the active use of the best world experience and the latest technology, highly qualified management and personnel.

All Miratorg companies are in line with international environmental standards. The holding cares for the environment, taking an active part in the social life of those regions where the holding companies are represented, and adheres to the principles of ethical business behavior.



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