

The most important effects of use of **BIOPRO 60** are:

- Higher yields of milk per cow (15%)
- A better quality of milk, with higher% of fat and protein
- Longer life expectancy throat - a longer period of exploitation
- Better health, better fitness and fertility of animals
- Positive effect on the pH of the rumen microflora
- Reduced risk of acidosis and ketosis
- Reducing the concentration of urea in the blood
- Reducing the cost of treatment
- Economic viability - to 5,000 din. per cow per year



Economic evaluation of the use of **BIOPRO 60** toasted soybean cake was demonstrated in an experiment on the farm PKB Corporation that was done in her doctoral dissertation, Dr. Michael Radivojevića, published scientific papers in the Proceedings of the XXV Conference of agronomists, veterinarians and technologists Vol 17th No. 3-4, held at the Institute of PKB Agroekonomik, Belgrade.

BIOPRO 60 -soybean round unleavened flat cake *in dairy cow's nutrition*



Biopro-60 - soybean round unleavened flat cake

Soy is one of the most important nutrients in animal feed, due to the high content of biologically highly valuable protein (38%), and because of high oil content (18%). **BIOPRO 60** is feed with 38-40% protein and 8-10% oil is produced exclusively from healthy, hulled, genetically unmodified soybeans special hydrothermal treatment, during which it removes part of oil. During the thermal processing of soybean occurs inactivating of antinutritional factors, but with a much greater effect in ruminant nutrition, because of it achieves a significant increase of usable (by-pass) proteins there.

BIOPRO 60 is feed of choice for dairy cows because:

- The ratio of protein and fat is ideal
- Increased content of utilizable (by-pass) protein
- Rich source of energy - essential fatty acids
- A rich source of natural antioxidants (vitamin E)
- Pleasant taste and smell
- Finely granulated - chewing stimulates saliva production and increased
- Reduced moisture content below 6%
- Easy to transport and storage

Experiences from the field

It is confirmed that due to lower oil content and higher content of by-pass protein, favors the use of **BIOPRO 60** in relation to other nutrients of soybean origin, such as full-fat soybean meal or soybean meal. Socha and Satter (1991) published a study in which they determined the effect of different types of nutrients in lactation cows. The highest yield of milk with 3.5% milk fat and the highest concentration of dairy protein, gave the cows fed toasted soybean cake.

In recent studies, the project TR 20 016, which is funded by the Ministry of Science and Technological Development of Serbia, it was found that **BIOPRO 60** gives better results than full-fat soybean meal and soybean meal. With the increase of milk (about 1.5 liters / cow / day), a higher percent of fat and protein in milk along with stable pH and greater number of microorganisms in the rumen and lower urea content in milk. It was observed a higher concentration of glucose in the blood of cows fed with nutrition based on **BIOPRO 60** (3.25 mmol / L) compared with once based on soybean meal (2.67 mmol / L). All this points to the superiority of **BIOPRO 60** as sources of energy and protein in the diet of highly productive dairy cows.

Users experience

BD AGRO AD from Dobanovci owns a farm of 1,500 cows and 1,200 heifers Holstein breed, which in the period 2007-2009. imported from Canada. The average genetic potential of animals imported over 10,000 liters of milk during lactation and milk production level of the nucleus herd 12000-14000 liters. BD AGRO has significant resources invested in the renovation and equipping of facilities, milking equipment, crop production and mechanization, training of personnel and implementation of quality management systems. That makes it the best dairy farm in this part of Europe today.

“ Using toasted soybean cake **BIOPRO 60** manufactured by Bioprotein (Bankom Group), we have achieved high and stable production of good quality milk with the optimum weight gains of calves and breeding female offspring. The current level is 9800 liters of milk per cow per year with 3.6% fat and 3.45% protein. As main advantages of **BIOPRO 60** compared to other soy products that can be found in our market we highlight: - High levels of biologically valuable protein; - High level of non-degradable (by-pass) allowed the reduction of protein levels of total protein in the diet of cows and reduce the cost of meals provided and the efficient production of milk; - High level of non-degradable (bypass) protein contributes to the reduction of urea in the blood and milk of cows, which is the causal effect on health and reproductive condition of the herd, his productivity and longevity; - The level of 8% fat increases the energy value of feeds without depressive effect on the level of milk fat, which is the case with extruded soybeans.

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