

Comparing quality of the domestic milk replacer Ekolak T with the Dutch milk replacer, on location of The Mladost Farm

In period from 15.12.2006 till 26.02.2007 in PKB economy Mladost it's been performed an experiment to compare two milk replacers for nutrition of calves. It's been compared foreign milk replacer from Dutch company "SCHILS" and domestic milk replacer from the "BANKOM" company, "BIOPROTEIN" factory.



An experiment was performed on two groups (control and experimental group) of 10 male calves. They were from the first birth mothers. The groups were even per all parameters. In the first month, all male calves at the farm (with zoo-technical acceptable body mass on birth), in one month category, were in experiment, and the selection was performed in period 15.01.2007-25.01.2007 according to body mass, development, common habitus, temper, appetite and healthiness. The calves were 20-30 days old. In stature 25-35 days they were put into the object for the category 1-4 months and started feeding with milk replacer.

An experiment finished in two months stature (26.02.2007) when it's performed measuring of calves' body weight.



Feeding scheme

| Days of life | Colostrum | Full fat cow milk | Milk replacer |
|----------------|-----------|-------------------|---------------|
| First 4-5 days | At will | × | × |
| 5-30 days | × | 6 | × |
| Over 30 days | × | × | 6 |

The milk replacer was prepared according to the producer's reference for water temperature, solution density and time of mixing. Solubility of the both replacers was almost the same, like as sedimentation.

Chemical composition of milk replacers used in experiment, %

| Parameter | Dutch replacer | | Serbian replacer | |
|----------------|----------------|----------|------------------|--------------|
| | declaration | analysis | declaration | analysis |
| Humidity, max | 4,00 | 3,85 | 6,00 | 4,82 |
| Proteins, min | 21,00 | 20,60 | 23,00 | 24,38 |
| Fats, min | 16,00 | 14,53 | 15,00 | 16,30 |
| Raw fiber, max | 0,30 | 1,02 | 1,00 | 0,67 |
| Ash, max | 9,00 | 9,49 | 8,00 | 6,89 |

The basic parameters of the foreign milk replacer had discrepancy compared to the values from declaration. Protein and fat values were under the declaration values while the value of the crude fiber was over the declaration value, which was not the case in the domestic milk replacer in any of parameters.

Both milk replacers are very good soluble in water. It's been noticed that lumps appeared in solution of the foreign milk replacer, in small range, which were retained, and then, without any trouble crushed in small squeezer. The rest of the sediment of the milk replacers in buckets after calves feeding was similar for the both milk replacers. The acceptance of milk replacers by the calves (feeding agility) was very similar.

The average daily growth of the calves from the experimental group which were using domestic milk replacer was higher than the control group for the 47gr or 9,81%. The healthiness of the both calves groups was good. The calves which were using the domestic milk replacer formed more compact feces, which is very favorable.



More standard chemical content and better results of the biological experiment on calves (growth and more equivalent body weight) which were using domestic milk replacer, show that this is high quality milk replacer which can be compared with milk replacers of the famous foreign producers. For the purpose of the more precise evaluation it is necessary to take additional, more detailed research, but beside that this milk replacer is recommend for calves feeding at all modern cattle farms.