

PROTEIN CONCENTRATE

non-GMO

agro-matik.ru

Chemical composition of protein concentrate «Agro-Matik» to calculate the rations Of Cattle

Name	Unit	Protein 55%
METABOLISABLE ENERGY (ME)	MJ/kg	13,9
ENERGY VALUE	MJ/kg	22,5
NET ENERGY LACTATION (NEL)	MJ/kg	8,5
CRUDE ASH	%	8
CRUDE PROTEIN	%	55
CRUDE FAT	%	10
CRUDE FIBER	%	3,0
NITROGEN-FREE EXTRACTIVE SUBSTANCES	%	12
HUMIDITY	%	12
DRY SUBSTANCE	%	88
CRUDE PROTEIN	gram/kg	625
CRUDE FAT	gram/kg	114
CRUDE FIBER	gram/kg	34
NITROGEN-FREE EXTRACTIVE SUBSTANCES	gram/kg	136
SPLITTED PROTEIN IN THE RUMEN	%	32
SPLITTED PROTEIN IN THE RUMEN	gram/kg	200
BY-PASS PROTEIN (UDP)	%	68
BY-PASS PROTEIN (UDP)	gram/kg	425
DIGESTIBLE PROTEIN (NXP)	gram/kg	539
MICROBIAL PROTEIN	gram/kg	114
NITROGEN BALANCE (RNB)	gram/kg	13,7
NEUTRAL-DETERGENT FIBER (NDF)	gram/kg	140
ACID-DETERGENT FIBER (ADF)	gram/kg	25
ACID-DETERGENT LIGNIN (ADL)	gram/kg	12
LYSINE	%	3,0
METIONIN	9/0	0,9
METIONIN + CYSTIN	%	1,3
TREONIN	%	1,5
TRIPTOFAN	%	0,45
ARGININE	%	3,9
VALINE	9/0	1,9
HISTIDINE	%	0,9
GLYCINE	%	6,8
ISOLEUCINE	%	2,4
LEUCINE	%	2,5
TYROSINE	%	1,4
PHENYLALANINE	%	1,8
CALCIUM	%	1,8
PHOSPHOR	%	0,8
PHOSPHOR DIGESTIBLE	%	0,7
POTASSIUM	%	0,6
SODIUM	%	0,7
CHLORINE	%	0,8
SODIUM CHLORIDE	%	1,7

In modern intensive animal husbandry the main cost item is feed.

The problem of protein nutrition of agricultural animals is one of the most significant problems of animal husbandry. It is constrained by insufficient production of high-protein feed and insufficient efficiency of their use. The nutritional value of protein feed for ruminants is significantly increased if the protein of such feed is relatively resistant to the action of scar microflora, and at the same time well digested in the intestine. However, such feed in our country is produced very little. One of the ways to solve this problem is to develop a simple technology for processing protein feed, which leads to the protection of protein from decay in the rumen of ruminants, which increases the protein nutritional value of feed by 15-20% and increase productivity by 15%.

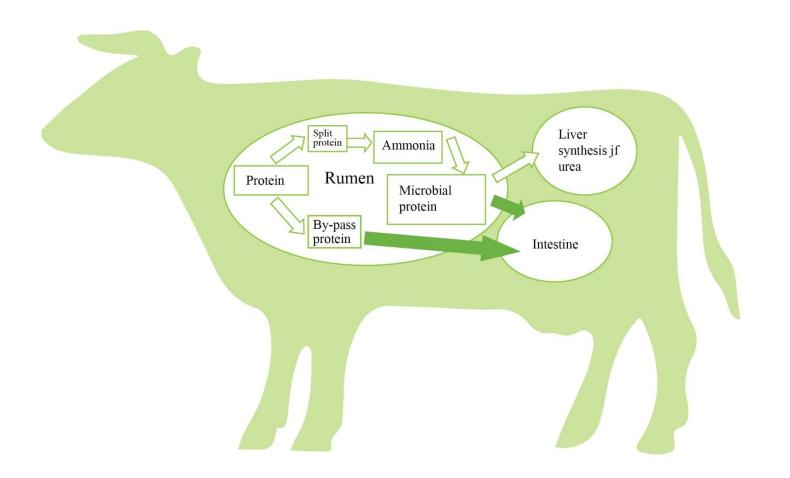
The complexity and originality of microbiological processes in the complex stomach of ruminants, has a decisive influence on the provision of their body with protein and amino acids. The main place of assimilation of protein and amino acids in ruminants, as well as in other species of animals, is the small intestine. Therefore, the need for them is provided by protein, which comes from the complex stomach into the intestine, and there is digested and absorbed, and the protein content in the feed is not crucial.

Rationing of diets only by the content of raw and digestible protein in feed, without taking into account its quality and the level of enzymatic processes in the rumen, often leads to overspending of feed protein, loss and increase in the cost of production, metabolic disorders and reproduction functions.

The special importance of these issues in the feeding of highly productive cows. Since the synthesis of microbial protein in the rumen is limited, in such animals it can provide 40-50% of the need, and the remaining amount of protein should come with food, avoiding decay in the rumen. This can be achieved by selecting feeds whose protein is resistant to decay in the rumen, as well as by refining the feed in physical and chemical ways in order to "protect" the protein.

With special treatment of feed for ruminants, the amount of protein digested in the intestine increases, which leads to an increased background of amino acid nutrition of the body. Therefore, the optimization of protein nutrition of ruminants is based not only on the creation of conditions for the effective synthesis of microbial protein in the rumen, but also the maximum intake of complete feed protein in the small intestine.

The transformation of feed protein in a complex stomach in ruminants occurs along the way of converting the decomposed protein into non-protein nitrogenous substances and ammonia, and the synthesis of these substances microbial protein, which is then absorbed in the In the assimilated protein protein is converted to a disintegrated protein with a coefficient of 0.51. Transformation nerazvedennogo feed protein absorbed from different protein feed is from 0.4 to 0.95. The requirements for assimilated protein in dairy cows consist of the need to maintain its life (500 kg cow requires 335 g of digested protein) and the formation of milk (1 liter of milk requires 47.2 g of digested protein). Thus, at milk yield of 30 kg of milk / day the cow should receive 1750 g of the digested protein. The usual full-fledged silage-hay-concentrate diet can provide only 1240 g of the assimilated protein, which can provide only 20 kg of milk yield. To obtain another 10 kg of milk, it is necessary to additionally ensure the intake of 472 g of digested protein, which can be done only at the expense of protein feeds with a high content of non-degradable protein in the rumen.



In addition, and microbial fermentation of degradable protein in the rumen of a cow, and subsequent synthesis of microbial protein, and the synthesis of urea from ammonia in the liver is processes, which require a lot of energy, so the increase in the proportion of undegradable in the rumen of protein in the protein composition of the feed not only increases the level of assimilation of protein, but also saves a significant amount of metabolizable energy for production.

Ammonia, of course, is also needed, but not in such an amount, since it is only partially absorbed by the microflora of the scar. At a concentration of more than 90%, most of the ammonia is absorbed into the blood and then into the liver, causing the latter's disease. As a result, the diseased cow is culled after 1-1.5 years. It is no exaggeration to say that the "thirty-liter" cow, eating the right amount of protein in the sunflower meal, receives a lethal dose of ammonia.

The amino acid composition of the protein Agro-Matik concentrate is the closest to animal proteins, which allows it to be easily absorbed by the animal body. This is its most important difference and advantage relative to other proteins.

When using protein Agro-Matik Concentrate, it is necessary to take into account its specific smell. Therefore, when entering the protein concentrate, care must be taken. The best option would be its introduction into the feed, with a gradual increase in the amount. In addition, during the transition period it is necessary to increase the amount of flavor in the diet by 50%.

1 - 3 day	50 gram
4 - 5 day	100 gram
6 - 8 day	300 gram
9 - 10 day	500 gram
11 -12 day	700 gram
13 - 15 day	1 000 gram





