

HOW TO FEED PREGNANT MARES?

The issue that horse breeders focus on the most is the healthy breeding of foals. Foal rearing begins in the womb, even before the mare's conception. During the 11-month gestation period of mares, there are important points to be considered in their care and feeding.



The early and final stages of pregnancy (last trimester) are very critical in feeding pregnant mares. Nutritional needs vary during the specified periods. Changing nutrient needs are summarized in Table 1.

Early Pregnancy Stage: It covers 2/3 of the pregnancy and during this period, mares' body conditions are expected to be ideal or slightly above. At this stage, the fetus gains less than 40% of its weight (foal weight in the womb). During this period, the nutritional needs of mares are not much different from an empty mare exercising at the same level. Vitamin-mineral feed additives added to the ration with good quality roughage hay, pasture grass and dried alfalfa rich in lysine and methionine amino acids and calcium, containing an average of 10-12% protein, will meet the nutritional needs of the mares in this period. Cereals can be added to the ration depending on the quality of forage and pasture grass. Appropriate vitamin-mineral feed additives to be used should be selected depending on the contents of other raw materials in the ration. Unfortunately, due to the deficiency in the control mechanism in the production and marketing of feed additives in horses all over the world, many feed additives that are recommended to be used in the field during pregnancy do not have an effect on healthy pregnancy and foal development, and they may even be harmful. For this reason, experts should be consulted about which vitamin-mineral premix to use.

Late pregnancy stage: In the last trimester of pregnancy, the fetus completes 60% of its development. Parallel to the progress of pregnancy, the mare's need for energy, protein and the amino acid lysine, which is important for the growth of foals, increases. However, contrary to what is known, the need for every vitamin and mineral does not increase in a similar way (Table 1). For example, although the need for calcium and phosphorus increases in the 7th month of pregnancy, and the need for copper and iodine in the 9th month of pregnancy, the need for zinc, selenium, vitamins A and E does not change during pregnancy.

Table 1. daily requirement of pregnancy mares (NRC 2007)		
	Early pregnancy	Late pregnancy
Crude protein (g)	650	800
Lizin (g)	27	35
Digestible energy (Mcal)	17	20
Ca (g)	20	36
P (g)	15	25
Cu (mg)	100	125
Zn (mg)	400	400
I (mg)	1	1
Vitamin A (IU)	30	30
Vitamin E (IU)	800	800

The most commonly used feed additives in pregnant mares are:

Use of calcium and phosphorus-containing feed additives: The importance of calcium and phosphorus in the health of the skeletal system in the field is known, but unfortunately, there are harms in using too much as well as insufficient use. Calcium and phosphorus needs of pregnant mares start to increase at the end of the second stage of pregnancy, but in practice, such feed additives are added to the ration when the mare becomes pregnant, which is an extremely wrong practice! Excessive use of calcium reduces the absorption of calcium from the intestines, thus reducing the bioavailability of the pregnant mare and suppressing the absorption of phosphorus, causing both insufficiency and proportional imbalance of these two minerals. My recommendation is that feed additives containing calcium and phosphorus should not be added to the ration uncontrollably.

Use of selenium-containing feed additives: Actually, pregnant mares have a very low need for selenium (~1 mg/100 body weight), but in many parts of the world, soil is poor in selenium and selenium deficiency during pregnancy causes serious problems in the foal, so it should be ensured that they get enough. At the beginning of these problems are the birth of foals with white muscle disease characterized by weakness and weakness, the colt being found dead due to heart failure in case the foal cannot stand or the heart muscle is affected. However, selenium poisoning, as well as selenium deficiency, can cause serious problems in foals and mares and may even result in death. The fact that there is no big difference between the ideal selenium requirement and the toxic (toxic effect) dose of selenium makes it more difficult to control. In other words, the use of selenium-containing feed additives for pregnant mares in areas rich in selenium is as dangerous as not using these feed additives for mares or foals in areas with poor soil in terms of selenium. My advice is to have the selenium

content of your soil analyzed and take it into account when preparing your ration program. In addition, the selenium level can be determined by applying a blood test to the mare.

To summarize, as it is understood from the issues highlighted above, it is not possible to determine a standard ideal pregnant mare ration to be applied in every farm for pregnant mares. The ideal ration program depends on the pasture conditions of the farm, the quality of forage sources such as grass and alfalfa, other oats, barley, corn, soybean meal, etc. The concentrate varies depending on the analysis as well as the individual characteristics of the mare.



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