



## HOW TO FEED THE CHAMPION HORSES?

Horse feeding is an art beyond science. Nutrition has serious effects on both horse health and exercise performance. As of this moment, many things are changing in the lives of the colts, who took their first steps on the way to the racetrack championship before they were two years old. Despite having ample paddock opportunities on farms, champion colts now spend most of the day in barns. These foals are generally fed with traditional methods and it is not very difficult for them to gain weight, but the important thing is that the muscle structure of the foal, which starts exercising before completing their physical development, develops in proportion to weight gain, and supports the health of the skeletal-muscular, digestive and nervous system.

Let's go through the example of the traditional eating habits of a foal that spends most of its day in the barn; Let's assume that a 2-year-old female Arabian foal, weighing 400 kg, in good body condition, exercising at the Kenter level, eats 3 packs of grass and 4-5 kg of barley paste a day. Such a foal will not be weak when viewed from the outside, because with the current ration program, it receives most of its daily energy needs, but many skeletal-muscular and digestive system problems such as stress fractures, bone weakness, stomach ulcers, weakening, and stiffness may occur in this foal over time. Improper nutrition program may result in poor performance.

You ask why? A foal fed in this way will not consume enough roughage to meet its needs, and will get its energy from carbohydrates. As a result of a carbohydrate-heavy diet, stomach acidity will increase during digestion and fermentation, and intestinal microflora and bacterial balance will deteriorate. When foals do not get enough macro and microminerals for skeletal health, Vitamin E and selenium levels, which are important for muscle health, will also be insufficient. One point should be noted, let's not forget that foals fed this way can also win a few races! However, due to nutritional problems, they will not have shown their real performance, and after a while, you will be looking at a horse that may encounter different health problems and cannot participate in the races.



### **Sağlıklı beslenerek yarışlarda gerçek performansını sergileyebilecek tayları nasıl beslemeliyiz?**

How should we feed the foals that can display their real performance in races by eating healthy?

Due to the herbivorous nature of the horse, roughage (grass, clover, etc.) forms the basis of nutrition, but it is not sufficient to meet the energy needs of the racehorse. The biggest benefit of consuming quality grass for the horse is that it increases saliva production, suppresses stomach acid by the bicarbonate it contains, and ensures the survival of beneficial bacteria in the intestinal microflora.

In order to meet the increasing energy need in traditional nutrition, rations containing grain feeds such as oats and barley in large quantities, as in the example above, cause insulin resistance, stomach ulcer, acidosis, tying up in the long term, osteoarthritis, bone weakness in the horse, as in the example above. It can lead to the development of health problems such as behavioral disorders (continuous turning in the barn, biting the manger, etc.). However, today, the use of sugar beet, soybean shell and vegetable oil are indispensable in racehorse nutrition. We can explain this as follows, sugar beet is a good source of increased energy, while soy husk supports non-paddock conditions with its high fiber content.

Sugar beet or soybean bark cannot be used alone as a substitute for grains such as oats and barley, but their inclusion in the ration program will also be protective against digestive system problems. Adding vegetable oil to the ration will decrease the amount of grain feed consumed and increase the amount of energy taken. At the same time, less heat is released during the metabolism of fats compared to the metabolism of starch, so the amount of heat that the horse needs to remove from its body during exercise is less. As a result, he will be able to use his energy for his performance instead of trying to stabilize his body temperature. In addition to the fat obtained from grain feeds by digestion, it is also beneficial to add vegetable oil to the ration from the outside, but it should be noted that the content of every oil is not the same: for example, corn oil, sunflower oil are rich in omega 6 fatty acids, while canola oil is rich in omega 3 fatty acids, and therefore it is important for horses. They need different oils at different stages of their life. Although vegetable oils can be used up to 500 ml in the nutrition of race horses, it should be kept in mind that excess oil increases the need for Vitamin E.

Consumption of adequate quality protein is important in foals that continue to develop muscle, but not all protein sources are the same. Lysine is the most important amino acid for the growth and muscle development of foals during this period, but unfortunately it is found in very low levels in feeds such as oat and barley, which are traditional nutritional raw materials, whereas soy is both economical and an important source of lysine and protein, but its use in excess can cause allergic reactions. may cause. As the foals running freely in the paddocks now spend most of the day in the barn, some demineralizations begin in the bones, and skeletal system problems become inevitable as the

increased training levels increase the load on the legs. Mineral balance, especially the amounts of calcium and phosphorus and their ratios with each other, as well as minerals such as zinc, copper, magnesium and vitamins A, D and K are indispensable for the health of the skeletal system.

In addition to preparing the ration program in a balanced way and in accordance with the individual characteristics of the foal, it is also important where the feed is given. IAD, which is one of the most common respiratory diseases in young foals, characterized by coughing and excessive mucus secretion, i.e. inflammatory lower respiratory tract diseases, cause air circulation disorders and thus performance retardation. In such cases, it is even important where the herb is given. When you think about the life of the foal in the paddock, you will remember that 8-10 hours a day, his head is eating grass in the paddock. But now? For this reason, it is beneficial to give feed and grass from the ground and wet it when necessary.

Of the feed additives that are frequently used; Iron is used especially for anemia, but anemia due to iron deficiency is very rarely seen in race horses. Another area of use is that it increases the oxygen utilization capacity, ie performance, by increasing the hemoglobin level, but there is no scientific support for this. Although DMG (dimethylglycine) is one of the ergonogenic agents and was thought to reduce lactate accumulation in the body in the past, it has been observed that DMG has no such effect in recent years. tranquilizers; The effects of feed additives containing L-tryptophan and magnesium and thiamin, that is, vitamin B1, have not been fully proven. bee pollen; It is thought to improve athletic performance but only has an appetite-enhancing effect. Gastric protective feed additives, on the other hand, contain herbal ingredients and are not effective unless a balanced ration is applied. Therefore, when choosing the feed additives you will use, it is necessary to make sure that they are supported by scientific studies on horses.

In summary, the nutritional needs of horses consist of primarily energy, protein, carbohydrates, fat, vitamins, minerals, water and other feed additives, and each of them has a separate importance in the ration. Feeding the foals and all horses with ration programs that are meticulously prepared considering their individual characteristics, exercise levels, conditions and existing health problems will have a significant impact on both the healthy growth of the horse and its performance. Therefore, in order to raise champion foals, attention should be paid to their nutrition and horse-specific ration programs prepared by experts should be used.



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