



Nutraceutical Aspects of Sales Preparation

Within the sales ring the body condition, confirmation and overall appearance of a yearling can either add or subtract from its sales catalogue page. Thus, these visual attributes can directly affect the sales price of a yearling. With this in mind, the aim of preparation of yearlings for the sales ring is to have them in the best physical condition as possible but to do this without causing any negative effects on their health or musculoskeletal system.

Nutrition has a large contribution to the physical appearance of the young equine for the sales ring. In terms of nutrition and nutraceutical intervention, sales preparation begins long before the foal is even born and on the ground. This is because development of the foal's body begins in the uterus of the dam.

Understanding the nutritional requirements of both your broodmare while pregnant and growing foal after birth are key aspects in preparing a young horse for the sales ring.



Contact Plusvital today to learn more about how cutting-edge genetic tests and scientifically-based supplements can assist with sales preparation:

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Broodmare

How to nutritionally support my broodmare during pregnancy and to provide the unborn foal with the key nutrients required for development?

Within the last trimester of the pregnancy, the largest amount of growth of the fetus occurs within the mare, with over 60% of the growth occurring within this third of the pregnancy. However the nutrient requirements of the mare increase before then, as early as the fifth month of pregnancy. This increase sees an increased demand for calories or digestible energy, protein and in particular the amino acids lysine and methionine which are important for tissue growth within the foal. Thus in addition to pasture or forage, later in the pregnancy the mare should be supplied with an increasing plane of nutrition with concentrate feeds added to the diet. To ensure an adequate supply of all the required nutrients the diet may also be supplemented with multi-vitamin and mineral nutraceuticals.

In addition to increasing calorie and protein requirements, there are specific increases in the requirements for vitamins and minerals in the broodmare at this stage of the life cycle. The vitamin A and E requirements are elevated above normal for the whole of pregnancy. The amount of calcium and phosphorus needed in the diet increases throughout the gestation as they become deposited in the fetus during the process of bone growth and mineralization (endochondral ossification). 17% of the mature bone mineral content will be present at birth.

In addition to these nutrients, trace elements such as copper and potentially manganese, iron and zinc are built up in the liver of the foal for use after birth to support growth as these minerals are in poor supply in the mare's milk. Studies have shown that copper supplementation of the pregnant mare can increase the copper store in the liver of the foal, the quantity of which is variable and unique to each individual foal at birth. The studies indicated that this could then have an effect on reducing susceptibility to developmental cartilage lesions as copper is vital for connective tissue formation and bone growth.

Additionally, studies have shown that vitamin E and selenium supplementation above the requirement of the pregnant mare has been correlated to increased colostral and serum IgG immunoglobulin (antibody) concentrations. This in turn may have a benefit on the immune status of the new born foal, which has potential to increase resistance to the infectious diseases that foals can be susceptible to in the first two months of life, a period during which highest foal mortality is observed.

Plusvital Breeding Syrup provides a targeted range of vitamins and minerals specifically to deal with the points discussed above. In particular it provides the fat soluble vitamins A, D and E as well as folic acid, which is very important for growth of fetal tissues during pregnancy as it is involved in DNA synthesis. It additionally provides amino acids lysine and methionine which are required at higher levels as the pregnancy progresses due to the increased tissue growth of the fetus. Finally, it provides copper and other trace elements (manganese, zinc and iron) which are important for supplying the new born foal with the reserves needed for the first period of life while these minerals are in poor supply in the mare's milk. Deficiency in such minerals has been linked to developmental orthopedic diseases which can be a problematic issue in achieving successful sales preparation of young horses.



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Weanling / Yearling

Generally speaking the foals will be prepared over a long period of time from before weaning until the day of the sales. However there will be short term fluctuations in growth rate which can be detrimental to the natural microbiome of the young horse. To reduce the impact of this transition it is important to support steady and balanced tissue and muscle growth while trying to prevent any musculoskeletal diseases caused by nutrition. This is a highly palatable soy protein based supplement and for this reason is very appetizing for young animals. It also provides increased levels of both lysine and methionine which are both important amino acids for muscle growth which will help to produce a high quality topline on the young horse for the sales ring when used in combination with appropriate types and levels of exercise. Lysine in particular is crucial in supporting the growth and development of the weanling, as it is required for improving protein availability. Lysine is the first limiting amino acid in

How to deal with the stressful time of weaning my foal and to reduce its impact on growth rate of the foal or help to prevent it causing problems such as gastric ulcers?

One key period is the time of weaning and the transition from the mare's milk to pasture and/or creep or concentrate feed. This period is both a period of nutritional and psychological stress and can cause a reduction in feed intake and be detrimental to the natural microbiome of the young horse. To reduce the impact of this transition it is important to support steady and balanced tissue and muscle growth while trying to prevent any musculoskeletal diseases caused by nutrition. This is a highly palatable soy protein based supplement and for this reason is very appetizing for young animals. It also provides increased levels of both lysine and methionine which are both important amino acids for muscle growth which will help to produce a high quality topline on the young horse for the sales ring when used in combination with appropriate types and levels of exercise. Lysine in particular is crucial in supporting the growth and development of the weanling, as it is required for improving protein availability. Lysine is the first limiting amino acid in

How to support balanced growth of muscle and develop a good topline for sales?

Once the weaning period has been passed it is important to support steady and balanced tissue and muscle growth while trying to prevent any musculoskeletal diseases caused by nutrition. This is a highly palatable soy protein based supplement and for this reason is very appetizing for young animals. It also provides increased levels of both lysine and methionine which are both important amino acids for muscle growth which will help to produce a high quality topline on the young horse for the sales ring when used in combination with appropriate types and levels of exercise. Lysine in particular is crucial in supporting the growth and development of the weanling, as it is required for improving protein availability. Lysine is the first limiting amino acid in

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How to support and maintain balanced bone growth through the sales preparation period without increasing risk of musculoskeletal disease?

An important issue in young horses is the prevention of developmental orthopedic disease which is a complex of musculoskeletal disorders some examples of which include: phositis, angular limb deformities, subchondral bone cysts and osteochondrosis. The prevalence of these disease can be over 60% in young Thoroughbreds. The causes of these disease are multi-factorial and include: genetics, hormones, conformation, growth rate, exercise type/amount and nutrition. They are interconnected causal components however nutrition has a role to play. An irregular growth rate or growth spurts may be a factor that increases risk of these diseases. A balanced and targeted approach to nutrition is key.

Plusvital Breeding Robust provides increased calcium and phosphorus in the correct ratio (2:1) which can support the bone growth early in life. Additionally, high levels of vitamins A and D are also provided to support bone growth. As it is in a pellet form it can be fed to young horses by itself without the need for additional feed and a high oil content provides more energy in a smaller quantity of ration without the presence of non-fiber carbohydrates which can produce an insulin response.

How to produce a shiny, quality coat for the sales?

Plusvital breeding Robust provides a supply of fats and oils which will be of benefit to the natural oils within the coat. This in combination with daily grooming and maintenance of coat quality will ensure a good shiny coat for the sales ring.

How to promote good hoof growth in the young horse and ensure good hoof quality for the sales ring?

A combination of regular hoof trimming by a farrier and then application of a good quality hoof product such as Plusvital Hoofcare. This is a unique blend of natural resins and oils which help to retain the moisture within the hoof wall and add protection from the outside environment due to their water proof nature. In addition to these properties they also have a compound with antiseptic action to prevent the hoof from disease. Plusvital Breeding Robust also contains the amino acid methionine which is essential for the synthesis of keratin which is integral for hoof growth. In this way Breeding Robust supports healthy hoof growth.



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