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Feeding the Orphaned Foal

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With the use of milk replacers, creep feeds and good management, growth rate and the well-being of the orphan foal can be equivalent to that of a foal nursed from its mother.

Milk Replacer: Cow and goats milk, nurse goats, foal and calf milk replacers and acidified milk replacers can replace the mares milk. If feeding cows milk, adjustments need to be made to lower the fat content and increase the sugar content so it is similar to mare's milk. Foals can tolerate goats milk which has not been altered. Good quality commercial milk replacers formulated for foals are available. When fed correctly, research has shown that digestive disturbances are no greater than those for a foal fed directly from its mother.

Colostrum: Colostrum has a high immunoglobulin content and foals, which have been deprived of colostrum, have a higher incidence of septicemia, diarrhea, omphalophlebitis and joint-ill. 250ml of colostrum should be fed to the foal every hour for the first six hours of life. Absorption ceases by 24 hours of age.

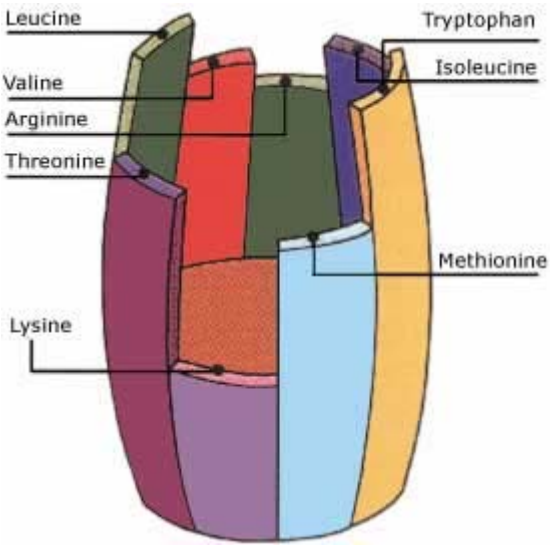
Feeding Frequency: Feeding the orphaned foal every 1-2 hours i.e. 16 feeds per day has been recommended for the first week of life. This can be reduced gradually to 4 feeds per day at 2 weeks of age. Foals with a birthweight of 40-50kg require 14 litres per day, increasing to 18-20 litres by weaning. After 3-4 weeks of age a total of 3 feeds are required each day. If too much milk is fed then diarrhoea and colic may occur.

Concentrates: Orphaned foals can begin to be fed pasture, or if pasture is not available lucerne hay, and concentrates from approximately two weeks of age. A good quality creep feed with a minimum 18% crude protein and balanced minerals should be offered. But always check the label and the manufacturer. If the copper level is at least 30 mg/kg, they are formulating to the most recent feeding recommendations from the literature.

The minerals should be provided as chelated-mineral-proteinates. Chelation reduces vitamin-mineral interactions and improves mineral absorption. In this form, calcium can be absorbed 300 to 500% more efficiently than when on its own in the gut as an inorganic mineral, such as calcium carbonate.

Protein and essential amino acids: It is also important to consider the amino acid profile of the protein. The label may show 18% protein, but it could be only 8% useable protein. The amount of useable protein is determined in the first instance by the amino acid content of the protein and secondly by the digestibility in the small intestine. The quality of any feed is determined by the number and amount of each of the 10 essential amino acids. Picture a wooden water barrel - the barrel can only hold water to the level of the shortest slat. Now, think of each wooden slat as an essential amino acid.

Regardless of the % protein of a feed, if there is not enough of each essential amino acid, a limit to protein synthesis (ie, muscle and bone development) is set. The other essential amino acids cannot be used and are degraded and stored as fat.
Whether a foal develops strong bone and muscle or lays down fat is determined by the quality, quantity and availability (digestibility) of protein in the diet. A deficiency of any one essential amino acid will impose a limit on body protein synthesis.



Feed digestibility: The final consideration when assessing how closely a feed will meet protein requirements, is whether the amino acids are in a form that can be absorbed by the horse - and this is determined by the digestibility of the feed. There is little point in supplying high quality feed which contains the correct amino acid balance, if the amino acids cannot be readily digested and absorbed.
If protein escapes digestion in the small intestine, it passes through to the caecum, where it is fermented by bacteria and degraded to ammonia, increasing the risk of diarrhoea. So a significant measure of the value of a feed is digestibility in the small intestine. Raw grains have a digestibility of less than 30%. Steam-extrusion increases this to over 90%.

Concentrates and Creep Feeds: Mitavite Breeda is an ideal feed for orphaned foals. It has a high protein and energy level and can be dampened to make chewing easier for young foals. The steam-extruded nuts of Breeda are highly digestible with over 90% being digested in the small intestine - helping to assist in essential amino acid assimilation and lower digestive disturbances in the orphan foal.

Suggested rates of 0.5-0.7 kg of Breeda and 0.1-0.4kg of lucerne can be gradually introduced to the orphaned foals ration after 2 weeks of life (mature weight 500kg). The Breeda, lucerne and milk replacer can be fed in a soft mash. The Breeda and lucerne can be gradually increased to 1-2kg and 1-1.5 kg respectively by weaning at four months and the milk replacer can be gradually removed over this time. (The rates suggested are guidelines for a foal with mature weight of 500kg. Feeding rates will differ with individual horses).

At Mitavite, agricultural scientists, equine nutritionists and veterinarians combine their fields of knowledge and expertise to formulate the Mitavite range of feeds. Using steam-extrusion, micronization, protected-heat-stable vitamins and chelated mineral proteinates Mitavite feeds nurture, support and protect growth, development and performance.

For further information on feeding horses please fill in our ***nutrition advice form.***