

## Foal Nutrition – Keeping it simple

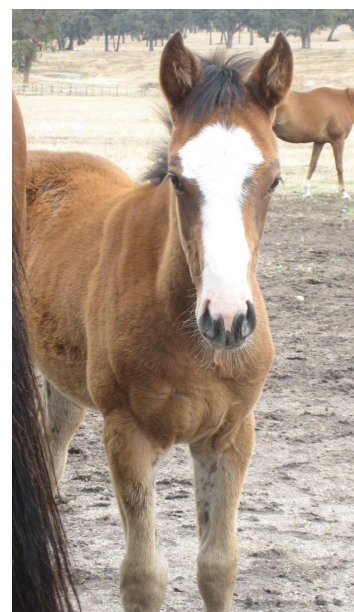
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This article briefly discusses some key points to consider when developing feeding programs for growing foals, starting with creep feeding of very young foals to weanling rations. As always, we encourage breeders to consult with their nutritionist for further advice specific to their farm environment.

### Creep feeding

Beyond about two months post-foaling, the amount of milk produced by many mares no longer meets all of the foal's nutritional needs. Therefore, providing additional supplementation in the form of a small hand fed ration (commonly known as a creep feed) beginning when the foal is anywhere from one to two months of age may be beneficial. One of the most important advantages of creep feeding is being able to accustom foals to eating concentrates before they are weaned. Foals that have been provided with creep feed for a period of several weeks prior to weaning generally eat better after weaning, and may be less susceptible to the stresses of weaning than foals that have not been so fed. Providing supplemental feed in a creep feeder for foals is preferential to having the foal eat the dam's concentrate because the foal's requirements relative to its energy needs are higher than those of the dam.



If during nursing, supplemental feed is not consumed, then following weaning when an adequate diet is consumed, a compensatory growth spurt may occur. This growth spurt may increase the risk of developmental orthopaedic disease (DOD) occurrence and severity if the weanling diet is not adequate. If the foal has been on a good creep-feeding program, this growth spurt, and as a result the risk of DOD may be reduced.

#### *A few notes on creep feeding:*

- The creep feeder should be strategically located near places that mares frequent, such as watering or feeding areas, and should be designed to allow the foal access to the feed in a safe manner without injury. Observations indicate that foals graze only when their mothers do and are more likely to eat, at least initially, when they see their mothers eating.
- Foals may have to be shown how to enter and eat from a creep feeder. Often confining several foals inside a feeder for a few minutes, showing them the creep feed and putting some in their mouths to get them started eating is adequate so they will act as teachers for the remaining foals.
- The feeder containing the supplemental feeds for suckling foals should be cleaned and filled at least once daily, more often if weather and other conditions indicate.
- Once the foal is eating 2-2.5kg, the amount of entirely grain mix creep feed fed may need to be restricted so that growth rates do not become excessive. Prior to this time, there should always be feed in the creep feeder. Most foals will eat small amounts frequently.
- Clean water should always be made available to the foals that are not milking, as they would normally receive their water intakes via the mare's milk.
- After 4 months of age, the foal can be fed as a normal weanling.

## Feeding the weanling

When feeding the growing foal, the goal is to achieve a steady growth rate from birth to maturity, avoiding any severe growth depression or spurt by ensuring that all nutrients are consumed in the proper amount. This can only be achieved through a delicate balance of energy, protein, and minerals:

- Growing foals have a certain energy requirement. If too much energy is provided in the ration without an appropriate increase in minerals, the risk of DOD is greatly increased. If not enough energy is provided, growth rate will be reduced.
- There are many essential nutrients in the growing foal's ration, but studies have shown that a correlation between the occurrence of DOD in horses and reduced amounts of calcium, phosphorus, copper and zinc. The incidence of these diseases decreased significantly when these minerals, particularly copper were increased in the diet.
- To provide sufficient dietary energy and protein for rapid growth and often for maximum mature size, grain will most likely be required. A good quality protein meal containing adequate levels of lysine, such as soyabean meal may also be necessary. Otherwise, growth may be slowed.
- Fats or oils may be added to growing foal diets to improve the energy levels.
- When pasture is available and makes up a large proportion of the weanling's intake, it is good practice to test the pasture for mineral levels to prevent dietary deficiencies. In these situations, a small hand fed ration containing appropriate levels of the deficient minerals may be all that is required.
- The energy, protein, calcium, phosphorus, zinc and copper requirements of the growing foal are frequently greater than those present in commonly used cereal grains and forages and supplementation of these minerals is often required to assist in preventing skeletal problems.
- A trace-mineralised salt lick and good quality water should always be available.

The horse feed market has been saturated with a vast number of equine feeds and supplements, each varying according to their energy, protein, amino acid and vitamin and mineral levels, as well as their method of processing. Every stud farm in Australia has a unique environment and will have different levels of nutrients available from pastures. Customising rations to complement the individual farm environment will increase the chances of the growing foal's nutrient requirements being met, ensuring optimal growth and increasing the likelihood of the foal going on and meeting its potential to perform.

### *Further reading:*

Lewis, L. (1995). *Equine Clinical Nutrition, Feeding and Care*. Williams and Wilkins.