

Feeding the lactating mare at pasture By Zoe Davies MSc.Eq.S.,R.Nutr. January 2010

Lactation is a period of significant, physiological stress for the mare. The nutrient needs are greater than any other, except possibly the racehorse in peak training. Lactation increases requirements for vital nutrients to produce milk. A mineral deficiency is unlikely to affect the quality of milk produced, but will cause the mare to use up her own mineral store causing deficiencies and possible problems with rebreeding. Poor nutrition may also exacerbate metabolic problems such as Cushings (PPID) and insulin resistance in mares.

Milk output varies between mares. Researchers have studied the effects of dietary energy and protein on mares milk output. Mares fed a high energy diet in the form of concentrates produced about 10% more milk than mares fed a high forage diet that was adequate in energy. However, the milk fat and protein content was slightly higher in the forage fed mares. Although the volume of milk was different, the energy output was the same and so there was no effect on foal growth rate in either group. That being said the mares fed high energy concentrates put on more weight. It is important to maintain a condition score of 5 or so to maintain the health of the mare and help with rebreeding and may be that high energy concentrates are required, but they should be fed little and often.

A typical TB lactating mare will produce 11-14kg milk per day for the first three months. This amount will decrease to about 8kg per day by 5 months. This represents approximately 450 gallons over a 150-day period! The period of lactation typically lasts about six months due to varying management factors such as time of weaning. There is a far greater requirement for nutrients during the first 3 months compared to the second, interestingly pasture quality and quantity increase as the mares requirements decrease!

Mares certainly need individual attention during this period. Overweight or "good-doers" need a different approach to feeding than underweight mares. Some mares sail through lactation with little if any loss of condition whereas others may lose a significant amount of weight.

Mares in good condition should be supplied with best quality forage and a specifically formulated low calorie stud balancer such as Gain Opti-Gro pellets at the rate of 4-5lbs per day. Concentrate feeds should be split between a minimum of two feeds per day. Overweight mares should never be starved as this may affect rebreeding and even result in a potentially fatal metabolic disorder known as hyperlipidaemia.

If mares lose weight during early lactation or mares were underweight at foaling, then this may have an adverse effect on the mares rebreeding pattern. The time for rebreeding may be lengthened and conception rates may be lower. Gain Stud Cubes may be fed instead as these provide more calories. To reduce the glycaemic effect, add oil in the form of linseed oil. This has the added benefit of also supplying important omega 3 fatty acids. The quantity of Gain Stud Cubes required will depend upon the mare's bodyweight and they may need as much as 1.5% of their bodyweight as concentrates per day. For a typical 500kg mare this equates to 7.5kg (16.5lbs) Gain Stud Cubes per day. This may be necessary until the grass comes through or where pasture quality is poor. Where fewer calories are required, 4lbs of Gain Stud Cubes can be substituted for 1lb of the lower calorie Opti-Gro. This enables the correct balance of calories and micronutrients to be achieved. Otherwise, simply reducing the amount of Stud Cubes from the recommended amount will result in a lower intake of vital quality amino acids and micronutrients. Due to the artificial breeding season of the TB, mares will often be at month 3 to 4 of lactation before the spring grass arrives. Up to this point, mares will need top quality conserved forage in addition to concentrates. All lactating mares will drink large amounts of water and clean fresh water must be available to them at all times. In hot weather, mares may drink as much as 25 gallons of water per day.

Daily nutrient requirements start to decline significantly during month 4 of lactation. Mares at this point will probably be on free-choice grazing with Opti-Gro. In month 4, mare's milk will provide less than 30% of the total energy needs of the foal, which should now be eating well on its own. Foals should be creep fed Opti-Gro at this point to prepare them for weaning. If pasture quality is poor due to adverse weather conditions or any other factor, foals may be fed Gain Foal Weaning Pellets instead of Opti-Gro as these supply the same micronutrients to support growth with additional calories.

Throughout lactation the bodyweight of both mares and foals should be monitored closely and minor adjustments made to the ration as and when required to maintain mares and foals in optimum condition, particularly as many mares will also be carrying another foal.