



## Feeding Newly Weaned Youngstock

### The Foals Changing Diet

As foals grow older they become more independent exploring the paddock and spending more time away from their mother's side. The foal will tend to drink from the mother much less than they did previously as the mares milk becomes much more watery in consistency and the milk production drops (see table 1).

	Days of Lactation						
	1	3	7	14	28	56	90
Fat (%)	1.31	1.01	0.79	0.94	0.76	0.63	0.55
Protein (%)	3.29	3.49	3.10	2.72	2.44	2.10	1.95
Lactose (%)	5.79	6.10	6.17	6.33	6.60	6.84	7.12

Table 1: Mares Milk Analysis

The foal will now be receiving fewer nutrients from the mare although the foals nutritional needs keep rising, so although they will start to eat grass to sustain them self there will still be a nutrient gap. Therefore, the foal will now need additional feed with extra nutrients to fill this gap.

Foals should be introduced to concentrate feeds at around 8-12 weeks of age, at a rate of 1% of the foals body weight per day (1kg/100kg of body weight) and you need to make sure that the feed is fresh daily and that the foal is consuming adequate amounts.

Feeding the foal concentrates prior to weaning will help make sure that the foal is receiving enough nutrients at weaning to meet its requirements. This will help to minimize the post weaning slump as a temporary loss of appetite and subsequent reduction in growth rate is frequently observed after weaning. This transition into the weaning phase needs to be smooth, and a consistent feeding pattern maintained by the foal as far as possible.



Several factors are very important when you are planning a feeding programme for a young horse. It is necessary to look at the nutrient requirements of your youngster, the feed nutrient content, the anatomical limitations of the young horses digestive system and the body changes involved with growth.

### Nutrient Requirements of the Weanling

At the time of weaning, the foal should be receiving sufficient nutrients from a stud ration to maintain weight and consistent growth when the milk supply is removed. Weanlings cannot be fed low energy, bulky feed because their digestive tracts are not large enough, instead they need concentrated sources of energy, protein, vitamins and minerals to meet their nutrient requirements.

By using a nutrient dense mix, which is balanced to provide the correct nutrient levels, it is possible to create the optimum dietary balance to promote skeletal development, and encourage consistent daily weight gain, reducing the risk of skeletal defects.

The main concerns at this stage of the weanling's development are the need to provide a concentrate ration to balance the forage given, and to ensure that the nutrient intake is sufficient for individual growth. Foals should be receiving a diet adequate in energy, protein, vitamins and minerals in order to grow properly and achieve their full genetic potential.

Table 2 demonstrates the energy and protein requirements of the mare and the foal from gestation through to weaning and the two year old in relation to the estimated mature weight. It is seen that the protein requirements of the weanling is almost twice that of the mature horse at maintenance, and weanlings are much more susceptible to nutritional problems than older horses.



	Estimated mature weight (kg)					
	400		500		600	
	DE (MJ)	Protein (Kg)	DE (MJ)	Protein (Kg)	DE (MJ)	Protein (Kg)
<b>Maintenance, mature</b>	56	0.54	69	0.66	81	0.78
<b>Mare, last 90 days of gestation</b>	68	0.67	79	0.82	94	0.97
<b>Lactating mare, first 3 months</b>	96	1.14	118	1.42	140	1.71
<b>Lactating mare, 3 months to weaning</b>	84	0.84	102	1.05	118	1.26
<b>Weanling</b>	54	0.68	63	0.75	71	0.86
<b>Yearling</b>	65	0.70	82	0.85	84	1.02
<b>Two year old</b>	64	0.65	79	0.80	87	1.00

Table 2: National Research Council, *Nutrient requirements of the Horse*, National Academy of Science (1989)

Weaned foals should be fed good quality forage, have ad-lib access to good quality hay and also should be fed concentrates to help meet their energy requirements at a rate of 1-1.5kg/100kg of their bodyweight per day. Be careful however to feed the right quantity and quality concentrate as feeding them too high of a level of concentrate will encourage them to grow too quickly which may harm skeletal and tendon development.

### Sustaining Growth

Not all foals grow at the same rate as breed, sex, body condition and genetics can influence growth rate and therefore the level of nutrients required. Provision of sufficient nutrients for muscular development and conversion of cartilage to bone is essential. Managing growth during this time is very important because excessive weight gain may cause bone abnormalities and long lasting skeletal problems.

The optimal growth rates are not known but the results of several survey suggest that the average light horse might be expected to obtain about 47%, 67% and 80% mature weight



and about 83%, 91% and 95% of mature height at the withers by six, twelve and eighteen months respectively.

As the yearling reaches 12 months of age it is seen how the growth rate slows considerable and now they need lower nutrient concentrations in their ration and increased forage. By the time they are 18 months of age their growth rates have slowed even further.

Weight gain and development taper off as the horse matures. As growth slows, you will need to adjust the ration to approximately 1.5-2% of the yearling's body weight. The concentrate to forage ratio should also be adjusted so by the time the horse is a 2 year old, half of its daily diet (by weight) is coming from concentrated sources and the other half from forage. Breed type, maturity and level of activity will affect the horse's exact nutritional requirements.

Growth rates slow with increasing age, so fewer nutrients are required to support tissue growth. However the youngster still requires a balanced diet to maintain growth and development.