

## Feeding the Thoroughbred Weanling

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Weaning the foal brings a major benefit to its nutrition; the amount of nutrients provided by the individual dams' milk is now no longer a concern and as a consequence monitoring feed intake becomes much easier. A group of weanlings often vary tremendously in size and type some are lighter and leaner whereas others are much stronger and carry more condition. There is an optimum growth rate for the individual weanling that is predetermined genetically. It is really important to monitor growth rates so that changes to the feed can be made as required. New research also suggests that the height at the withers should also be monitored with the bodyweight so that fast growing individuals can be more easily identified and diets altered accordingly. The easiest way to assess bodyweight is to use a weighbridge and to chart the foal's weight (and height) at least once per month. Rapid weight increases should be noted as these foals are more likely to develop signs of Developmental Skeletal Problems or DSP (previously referred to as DOD). If a weighbridge is not available, a weight tape, although not as accurate is able to show changes in weight, i.e. increases or decreases. Weight tapes are more accurate if the same person takes the reading each time! Weanlings already showing signs of DSP should be prevented from achieving further rapid weight gain and maintained preferably on the lighter side to ease pressure on the growth plates. This does not mean starvation rations! These weanlings should be fed a reduced calorie feed whilst maintaining their intake of quality amino acids, minerals and vitamins to support continued growth. This can be achieved by using a low calorie feed balancer such as Gain Horse Feeds Opti-Gro pellet, which can be fed with a double handful of alfalfa chaff or alfalfa and added oil, which also supplies quality fibre and other nutrients. The aim of feeding the weanling should be to continue to provide all nutrients for optimum growth whilst maintaining foals in optimum condition, definitely not too heavy, nor too light. The balance between feeding and exercise is critical as exercise is now known to be important for weanlings to help strengthen up the musculoskeletal system.

The feeding programme should be based upon a balanced, palatable, forage and concentrate diet. It should contain easily digestible ingredients that meet the requirements for growth and development of the foal, but does not oversupply energy in the form of starch. If too much nutrition is provided that is unbalanced, e.g. high levels of energy particularly from starch, then rapid growth can occur. Optimal not maximal nutrition is the key and this should help to produce a healthy individual that optimizes athletic potential for future performance.

Some breeders fall into the trap of overfeeding concentrates, particularly cereal based concentrates. A high starch rations may predispose foals to DSP according to latest research. Researchers in USA have conducted a glycaemic response test on over 200 TB weanlings in Kentucky. The results showed a strong link between an increased 2 hour post feeding plasma glucose and insulin levels and a higher incidence of DSP in these foals when followed through to yearling stage. It would seem wise therefore to feed top quality forage with low starch feed balancers such as Gain Opti-Gro to give a lower Glycaemic Response. If studs want to continue feeding stud mixes then some oil such as soya oil should be added to the feed as this has been shown to reduce the overall glycaemic response. Also, weanlings should be fed little and often, at least 4 feeds per day to reduce this effect, i.e. the quantity of mix per feed should be very much reduced.

It is thought that a chain of events follows a high starch feed which includes changes to blood glucose, followed by changes to blood insulin and this affects both growth hormone and insulin-like growth factor-1. These are known to affect cartilage development.

Individual growth rates should be supported by a balanced ration for individual weanlings.

This is easier to accomplish when weanlings are brought in for feeding, but this is not always possible. It is relatively easy to ensure energy levels are correct. After all, if too little energy is fed, the weanling will lose weight and look light, whereas if too much is fed it will become too fat, this can be seen when monitoring the weanlings weight.

Care should be taken as excessive dietary energy may result in a rapid growth rate increasing the risk of DSP. This is certainly to be avoided and many breeders mistakenly associate high protein intakes with DOD. High protein rations do not cause skeletal growth related problems. Research has shown that weanlings fed rations containing 14 or 20% crude protein had similar weight gains and bone growth, whereas feeding a ration of 9% crude protein resulted in reduced growth rates. If this growth rate is slowed down

enough, then the weanling will not reach its full growth potential and will be smaller as an adult horse.

Minerals and vitamins are another matter! These nutrients although required in relatively small amounts can wreak havoc on the skeletal growth of the foal, if they are not provided in an available and balanced form. It is a difficult task for any breeder to balance a home mixed ration with the correct amounts and balance of amino acids vitamins and minerals. Mineral deficiencies, even slight ones can result in DSP. Deficiencies or imbalances of calcium, phosphorous, copper and zinc will predispose the weanling to these problems. Pastures are simply not guaranteed to provide weanlings with all minerals required and so feeding Gain Opti-Gro can ensure that important nutrient requirements are met in a balanced feed. Ideally pasture should be analysed for mineral status so that any deficiencies/ imbalances are known.

The addition of excessive supplements may cause further problems. This is certainly a case of too much being as harmful as too little.

If breeders are using a straight cereal as the basis for their concentrate- feeding regime then a specially formulated feed balancer such as Gain Opti-Gro is a must to ensure the weanling is receiving all the nutrients it needs. Straight cereals are particularly low in calcium and essential amino acids, not at all ideal for growing weanlings. The addition of some soya oil or linseed oil to each feed will also help reduce the glycaemic response. Feeding ad lib quality hay or haylage and mixing the concentrate feed with unmolassed beet pulp which may be fed warm, should help to see them through the cold months. If extra calories are needed, add soya or linseed oil. Linseed oil is rich in omega 3 fatty acids. Fibre should not be considered as simply a bulk feed or filler, but as a source of energy as the digestive tract of the weanling should now be fully adapted to fibre digestion. An adequate fibre intake will ensure the gut remains healthy and is vital for the overall health of the weanling. Feeding a high quality, early cut hay/haylage will also reduce the chances of "hay-belly", the characteristic pot bellied appearance often seen in foals fed on mature forage.

Unfortunately, this is sometimes seen in weanlings turned out to pasture at this time of year as the grass is over mature and stemmy. If the weanling is showing too much of a "hay-belly", time out at pasture should be restricted. Attention to detail and careful monitoring of weanlings will help breeders to achieve their goals of a long and successful athletic career.