

## Nutrition for the Geriatric horse

Geriatric Horses/ponies (>20yrs) require careful consideration with respect to their feeding. With age, their digestive system becomes less efficient at converting food into energy and body tissue and so their nutrient demands increase and good quality feed and pasture becoming of utmost importance. This is more important if the horse is still in work.

This information is aimed at older horses and ponies with no significant health problems such as liver disease, chronic laminitis or equine metabolic syndrome. It is advised that horses are regularly wormed and all dental problems are dealt with prior to diet change.

It is important to know that the horse's intestinal tract gradually decreases in its ability to digest nutrients from the food consumed as it ages, therefore quantity of food must be exchanged for increased quality, and easily digestible feeds that are made up of high quality ingredients need to replace harder to digest feeds.

Horses and ponies are herbivores and are further classified as "hindgut fermenters". This means that bacteria and other micro-organisms in the large intestine break down components of the food, e.g. fibre, that can not be normally be digested. This fermentation takes place in the caecum where significant amounts of the B vitamin complexes and volatile fatty acids are produced as a result. The size of the horse's stomach is also quite small and hence many classes of horses are not able to consume enough forage to meet their nutrient requirements, therefore concentrates are sometimes needed to supplement their nutrient requirements. The stomach of the horse is small because in the wild the horse obtains all its dietary needs through grazing for up to 18 hours a day. Due to this lifestyle their gastrointestinal tract has adapted to enable them to absorb the maximum amount of nutritional value from a diet of roughage when young.

In the Geriatric horse/pony the hindgut (large intestine) has been 'working hard' for at least 20 years to provide the majority of the nutrition to the horse by digesting the large amounts of fibre that is consumed, becomes much less efficient. This means the older horse can no longer rely on getting enough nutrition from the fibre component of its diet. Ability to digest proteins and phosphorous is also decreased. Many older horses have dental problems which may mean they find it difficult to chew higher fibre food like hay and haylage. This combined with the decreased efficiency in the hindgut, means that they need to get more of their nutritional requirements from feeds digested in the in the foregut (small intestine), for example, feeds containing higher level of carbohydrate and vegetable oils. These feeds have a high energy content which is easily digestible. Those which find it hard to chew hay and haylage can have their fibre intake supplemented by using grass cubes or pellets, as the horse can eat them in a similar way to hard feed. If necessary, they can also be soaked to soften them.

Feed may need to be soaked or given in small regular amounts rather than one or two large meals a day to safeguard against the risk of developing 'choke' or impaction coli

## **General nutrition and feeding guidelines for the geriatric horse**

### **Increase dietary levels of:**

- Protein: 10-14%
- Energy: Increase soluble carbohydrates, fats and oils in the diet.
- Fibre: Total fibre should be less than 30% of the diet.
- Minerals: Macro and micro minerals should be supplemented. Control excess calcium intake as renal calculi may develop.
- Vitamins: Supplement dietary fat soluble and water soluble vitamins including vitamin C.

### **Suitable feeds for geriatric horses:**

- Good quality hay or haylage.
- Grass and high fibre cubes.
- Oats or barley: easily digested by the small intestine.
- Sugar beet pulp: fibre is highly digestible.
- Vegetable oil, corn oil, soya oil: very energy dense – 1-2 cupfuls per day can be fed provided this level is built up very gradually.
- Probiotics: enhances fibre, protein and phosphorus digestion.
- Processing of feeds such as chopping, cubing and mashing often improves the chewing and digestion of the food.
- There are several commercially available feeds specifically made for the older horse and your veterinary surgeon or a recommended equine nutritionist will be able to help you decide which would best suit your requirements.

If you require any feeding advice or to accurately monitor the weight of your geriatric horse please contact the surgery to discuss with one of the equine vets and to arrange to bring the horse to the Equine surgery to be weighed on the 'horseweigh' scales.