FEEDING AND WATERING YOUR EQUINE

RASE EQUINE HOSPITAL
MARKET RASEN

FEEDING AND WATERING

Horses are natural "trickle feeders", browsing and grazing for much of the time. Their digestive system has evolved to cope with a fibre based diet, with the emphasis on digestion in the hind gut (caecum and large intestine)

A horse's natural diet includes a variety of grasses of different types and age (from fresh new growth to older rougher stalks), and also other herbs and "weeds", resulting in a fairly consistent nutritional intake for much of the year. Old pasture is ideal for most horses and ponies with only supplementary hay requirements during the winter months. However, the natural variety of grass and herbage is often lost in a modern sown pasture where one or two nutrient-rich grass types and clover may dominate. As a consequence, there are often seasonal flushes in grass growth (horses are then more prone to weight gain and laminitis) and the need for supplementary feeding at other times.

THE HORSE'S DIET

Horses require a balanced diet that includes the right proportion of nutrients (carbohydrates, protein and fats), vitamins and minerals for proper digestive function. This should ensure the maintenance of a good body condition, a healthy weight, repair from injury and should provide energy for growth and work. Carbohydrates, in the form of naturally occurring sugars, starches and cellulose, are present in grass and most supplementary feeds, and form the basis of the horse's nutrient needs. Sugars provide quick-release energy whilst starches provide slow-release energy and cellulose is fairly indigestible but important for roughage.

Protein and fats are present in proportionately smaller quantities in grass-based feeds. They are important for body function, growth and repair and as sources of energy, particularly for horses with a high energy demand such as those in hard work, growing youngsters and mares that are in foal or lactating (producing milk). They are included in many supplementary feeds.

Vitamins and minerals are an essential part of a horse's diet. They occur naturally in grass and are included in supplementary feeds, though the proportions may vary. Mineral blocks and licks are available and can be used in the field or stable to ensure the horse has access to the necessary minerals that may be lacking in the grass or hay ration. This may be the only supplement required to the diet of most horses that are out of work or in light work only. Balance is essential – oversupplementing with one vitamin or mineral can inhibit the uptake of others by the body.

SUPPLEMENTARY FEEDING

When feeding a horse, consideration must first be given to the type and quantity of grazing to which the horse has access. Grass is often overlooked when considering a horse's ration but it is the sole (or predominant) diet for most horses. Whether fresh (grazed pasture) or fed as conserved forage (hay or haylage), grass is an important energy, nutrient and fibre provider.

FIBRE AND ROUGHAGE (LONG FEED)

Fibre is essential to maintain good digestive function. The primary source of fibre roughage is grass. The fibre content increases during the grazing season and is higher in the more 'stalky', mature grass. Mature grass is also used for conserving as haylage or hay, providing high-fibre feed for the winter months or when the horse does not have access to grazing.

If managed correctly, grass can provide a balanced diet from spring through to autumn. During the winter months the energy content of the grass falls, this is why it is sometimes necessary to supplement a horse's diet with hay, haylage, grass pellets, chaff or oat straw. Most horses in rest or light work will not require any supplement to their diet.

CONCENTRATES (HARD/ SHORT FEED)

These are foods with proportionately high (concentrated) levels of nutrients and energy. When fed they should not normally account for more than half of the horse's total dietary-provision. Usually, concentrates make up only a small percentage of the horse's diet, with roughage making up the majority.

STRAIGHTS

These are cereals and grains, such as oats and barley. These are often rolled, crushed, bruised or heat-treated to increase their digestibility. They provide energy and nutrients for horses with high energy demands such as those in hard work and competing regularly. If fed to horses in light work or to ponies they may cause the animal to become overweight or difficult to manage.

COMPOUND FEEDS

These come in two forms – nuts (cubes or pellets) and mixes. Generally compound feeds have been specifically prepared to suit the needs of particular types of horses and ponies, ranging from highfibre maintenance (nuts) to high-energy competition (mixes). An analysis of the nutrient components should be available on the packet and feeding advice available from the manufacturer.

SUCCULENTS

Soaked sugar-beet pulp, apples and carrots are useful for bulking a ration as well as tempting fussy feeders.

COMMON FEEDING-RELATED PROBLEMS - CHOKE

Bolting food and poor chewing can result in food being swallowed as a large mass that becomes lodged in the horse's oesophagus, causing considerable pain as it is slowly forced down into the stomach. Unable to bring the food back up, a horse with choke will appear distressed and may show signs similar to the onset of colic (sweating, pawing the ground, straining).

Choke varies from abdominal colic in that the mouth is usually held wide open and the throat and neck can go into spasm. The horse may drool saliva from the nose and mouth. Symptoms usually pass within half an hour once the food has reached the stomach. If symptoms have not improved or if they worsen, immediate veterinary advice should be sought. Measures must be taken to avoid a horse bolting food; hard feed should include long fibre such as chaff to increase chewing time and the ration should be dampened down with water. When feeding succulents, such as apples and carrots, ensure that they are cut into long thin pieces rather than chunks so that they are less likely to be swallowed whole and cause an obstruction.

QUIDDING

When eating normally, the action of a horse's tongue moulds the chewed mouthful of feed into a saliva covered lump (bolus) suitable for swallowing. If, instead of being swallowed, this bolus is dropped out of the horse's mouth, or if a horse persistently drops partially chewed food while eating, this is referred to as quidding and indicates a problem in the horse's mouth. The more fibrous the feed, the more difficult it is for a horse with dental problems to chew effectively and therefore the food is discarded from the mouth rather than swallowed.

This is often evident from small wads of saliva covered hay being found on the ground beneath the horse's hay net, particularly in the case of an older horse. The horse's mouth should be inspected by a veterinary surgeon or dental technician for signs of dental problems, such as sharp or irregular teeth, painful sores in the mouth or a broken, infected tooth. If dental problems are not treated, a quidding horse will suffer progressive weight loss and their general health may be affected.

FOOD AGGRESSION AND BOLTING

If a horse has a tendency to attack and bolt food, it is important to make sure that all hard feed is properly dampened down and include a significant increase in fibrous material such as chaff. The inclusion of lumps of food such as succulents should be avoided. The horse is at risk of choke or colic.

Often the horse will be protective of the ration and become aggressive to other horses or handlers. Feed the horse somewhere quiet, where the perceived competition with other horses for the food is minimised. Seek professional advice to resolve food-related behavioural problems.

FOOD PREPARATION AND STORAGE

The quality of feed and forage can deteriorate rapidly if incorrectly stored and then, if fed, can result in serious digestive disturbances. Hay should be stacked when it is cool and dry, and kept undercover from the elements. Hay and straw should be stored so that air can circulate under the bales to prevent them getting damp and musty. This can be achieved by stacking the bales on pallets or planks of wood so that the bottom layer is raised a couple of inches from the ground. Haylage should be handled and stacked to avoid puncturing the bales. Damaged and soiled bales of hay and haylage should not be fed.

Hard feed should always be kept in a cool dry place in a vermin proof container with a secure lid. The container should be stored in a place not accessible by horses. Special care must be taken with the storage of unsoaked sugar beet, as this could be fatal if eaten by a horse.

All food bowls and equipment should be kept clean and free from stale feed.

The feed room should be kept tidy and measures taken to clean up any spilt food. Feed bins should be cleaned regularly before new feed is added. Keeping feed in its sack within the feed bin reduces spoiling and cross contamination.

An uneaten ration should be disposed of safely rather than fed later and steps taken to discover and resolve the reason why the ration was left. Forage that has been dragged or trampled on the ground or through the horse's bed should not be re-fed.

PRACTICAL FEEDING

Always dampen down any dry food with water before feeding. Feed your horse from a large shallow bowl that can be placed on the floor and will be difficult to tip over. It should be made of plastic or rubber to avoid causing any injury to the horse. Mangers that attach to the stable door or the fence are also acceptable means of feeding a horse, although it is more natural for horses to feed from ground level.

FEEDING FORAGE

In the stable, hay and haylage is best fed from a net tied to a ring on the wall, as it is more economical and the hay does not get trodden into the bed as it would if placed on the floor. When using a hay net, ensure that it is tied high enough using a quick release or slipknot to prevent the horse getting a foot caught in it. When feeding hay in the field, scatter it in small piles so that horses can walk from pile to pile as if they were grazing. If horses are sharing a field, make sure there are more piles of hay than horses. This will help minimise any fighting over food.

WATERING

Horses drink approximately 25 to 55 litres of water per day depending on the weather, their diet and the level of work they are doing. Water is essential to maintain a horse's health and it is vital that horses should have access to fresh clean water at all times, in the stable and the field.

WATER IN THE STABLE

Water buckets in the stable should be made from plastic, rubber or polythene. The water should be changed frequently and the buckets kept clean. Where possible, the water buckets should be placed in the corner of the stable to prevent them being knocked over.

Automatic drinking bowls are a good alternative to water buckets, although they can cause problems because some horses do not take to them and it is difficult to tell how much has been drunk. Buckets and automatic watering devices must be kept clean so that the water remains fresh.

WATER IN THE FIELD

It is important that a horse has a constant supply of fresh clean water while out on the grass. The best way of providing this is via a self-filling trough that should be made from galvanised iron or reinforced plastic. Troughs filled from a tap are not recommended if the tap is protruding as the horse could be injured.

Seasonal care of water troughs needs to be carried out. In the summer, the trough should be scrubbed out and any algae removed and, in the winter, ice should be removed twice per day.

Care needs to be taken with natural water sources such as streams and ponds as these may be contaminated or difficult for your horse to access safely. The ideal natural source is a running stream with a gravel base. If the base is sandy, horses may get sand-colic or, if the base is clay the area can quickly become muddy and the water dirty or difficult to access. It is advisable not to rely on natural water sources and it is wise to fence off those which pose a potential risk.

GOLDEN RULES OF FEEDING AND WATERING

- Feed a fibre-based diet and only supplement it with hard feed if absolutely necessary
- Always offer water before feeding
- Feed at the same time every day
- Make any changes to the horse's diet or routine gradually
- Always feed good quality, clean food
- Feed according to type, temperament and amount of work being done by the horse
- Always leave at least an hour between feeding and riding
- Feed little and often, subdividing the ration into several smaller feeds throughout the day Feed chaff mixed with the hard food so that the horse has to chew every mouthful
- Feed something succulent

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