

Feeding **first**

Are you meeting your horse's dietary needs? Whatever his workload, age or temperament, we'll get you on the right track



Photos: Bob Atkins, Steve Bardens. With thanks to Alexandra Wesker for her help with this feature, horseconsult.co.uk

If you watch your horse grazing in his field, you'll notice he spends most of his time eating on the move. Unless he's asleep, it is unlikely you'll see him standing still for long. This is the natural way of eating for a horse.

The horse's digestive system is built to deal with small, but constant, amounts of food. It is estimated that wild horses forage for 14–18 hours a day, getting their nutrients from a wide range of forage, including herbs, rather than just grass alone. Field and stable-kept horses are more restricted, and with the increased expectations we place on them, they need our help to balance their diet. Roughage, such as grass and hay, makes up the biggest part of this. It contains all the nutrients a horse needs,

Did you know?

The amount, type and duration of exercise your horse does will affect what he needs from his diet.

but not necessarily in sufficient amounts to meet his needs. If your horse is fed a roughage-only diet and maintains his weight well, then it is possible that he is getting sufficient nutrients (except for sodium and chlorine), providing he is not in work. But this can only be assessed on a case-by-case basis and after a roughage analysis has been done.

Providing a salt lick containing sodium chloride or a mineral and vitamin supplement may be useful alongside a roughage-only diet. However, if he is in work, he will almost certainly require additional feed, a balancer or supplementation to meet his daily requirements.

Daily requirements

There are five basic nutrients horses need...

► **Carbohydrates** These are the main energy source found in most feeds, including roughage. The main nutrients providing energy in concentrate feeds are starch and oil.

The main sources of energy for horses are volatile fatty acids (VFAs). VFAs are normally produced from fibre and are made as a result of fibre fermentation, performed by bacteria in the hindgut. They should provide the horse with digestible energy (calories) so he can perform the workload demanded of him.

While cutting back on certain carbohydrates might be ideal for some horses, such as those prone to laminitis, eliminating them from the diet is not advisable. It's important to remember that carbohydrates and starches are not the same thing. Carbohydrates are a big group, including starches, but also sugars and most fibres. The healthiest carbohydrates are the fibres. Other carbohydrates in grass include sugar and fructan (a type of starch). These can cause horses to develop laminitis or colic, which means you need to be vigilant about the amount of grass your horse is exposed to.

Easily-digestible carbohydrates are often associated with fizziness because they give the horse a short burst of energy. These types of carbohydrates are found in oats and anything sugary – for example, syrup and molasses.

Wheat and maize are the real 'starch bombs' and contain the most energy of all the cereals. Maize is very difficult for horses to digest because of its outer shell. However, if it has been micronised (a specialised cooking process) it is highly digestible and provides a lot of energy. This can be beneficial if horses need to gain weight, but it can still cause them to fizz up.

Starch found in barley is difficult for the horse to digest. Undigested starch can cause excessive gas production in the stomach or hindgut and even bring on colic.

► **Fats and oils** can be a good option for horses who easily fizz up. Oil has the highest possible energy content, but it is slow-release energy so it won't cause him to hot up in the same

way that cereals can. There are, however, boundaries to how much oil can be fed (no more than 1ml per kilogramme of bodyweight per day, so half a litre for a 500kg horse), and fat should be introduced into the diet no more quickly than one tablespoon per day.

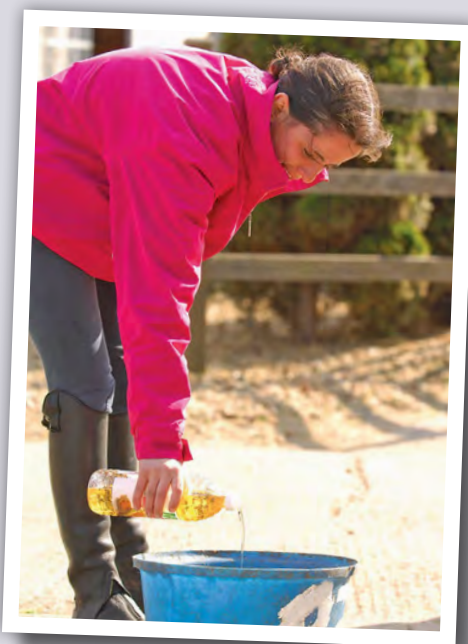
► **Protein** is used in muscle development during growth and in exercise. It can be found in differing amounts in soyabean meal, alfalfa and in many other feedstuffs – the most common one being grass.

► **Minerals** help maintain skeletal structure, fluid balance in cells (electrolytes), nerve conduction and muscle contraction. Macro-minerals, such as calcium, phosphorus, sodium, potassium, chlorine, magnesium and sulphur, are also needed daily. Many of these minerals are, however, covered by roughage, if the roughage is fed ad lib.

► **Vitamins** are usually present in large enough quantities in good-quality forage, provided it is fed ad lib. However, horses undertaking strenuous activity, recovering from illness or surgery, or on poor-quality forage may benefit from having extra vitamins provided.

Did you know?

Breeding and non-breeding stallions, mares in the later stages of pregnancy, lactating mares and young, growing horses all need extra nutrients.



The best way to maintain your older horse's weight is to provide ad lib roughage



Check your veteran's weight regularly

Age matters

Older horses might need extra attention paying to their diet, and it is important to have their teeth regularly checked by an equine dental technician or your vet to ensure they can chew properly and maintain weight. Some older horses find it easier to eat soaked feed, which can also help to prevent choke.

If you find it hard to keep weight on your older horse, it can be tempting to offer extra hard feed in an attempt to bulk him up. However, the best way to maintain an older horse's weight is to provide ad lib roughage.

Roughage is fermented by bacteria in the hindgut and this process produces heat. A warmer horse will use up less energy maintaining his body temperature, which means the calories will contribute to his body condition instead.

It's also important to look into why your horse is losing weight. If he has trouble chewing, for example, then increasing roughage may be an unwise decision. Veterans may have lost some teeth, which means they can no longer chew feed properly. Owners may notice this happening if the horse starts to lose weight or has wet droppings for an extended period of time.

If your horse has dental issues, it may be beneficial to replace part of the hard-to-chew roughage with high-fibre cubes that can be wetted down to a mash.

Older horses may also become less able to absorb nutrients. This is more likely if the gut has been damaged by worms over the years. Therefore, feed for these horses should contain more energy and nutrients to help compensate for the reduced absorption.

As with any horse, it's important ensure your veteran doesn't become under or overweight. Monitor his weight regularly by using a weigh tape or by following a body condition-scoring chart.

Feeding options

These days there are many types of feeds on the market, from balancers and fibre-only feeds to mixes, cubes and general-purpose supplements. It can be a minefield trying to work out what's best to feed. Here's a breakdown of what you can expect to find at your local feed merchants.

► **Mixes.** There is a suitable mix for every type of horse or pony, including low energy for excitable horses, high oil content for poor-doers, low calorie for good-doers and sugar-free for those prone to laminitis. Mixes are complete feeds and, when fed at the recommended daily rate, will provide all the nutrients your horse needs. They can be useful for fussy feeders because they tend to be palatable.

► **Cubes,** like mixes, are a complete feed. They come in all shapes and forms, but what they have in common is that all the ingredients have been crushed into pellets. Cubes prevent your horse picking out the ingredients he likes and leaving the ones he doesn't, which is easier for him to do with a mix. For horses who fizz up easily, high-fibre cubes can be useful when roughage quality is poor.



► **Balancers.** Balancers are, as the name suggests, fully balanced with the right amount of vitamins and minerals your horse needs. Often, they have added extras, such as biotin to support hoof health or probiotics to promote a healthy digestive system. As the nutrients are more concentrated, they are designed to be fed in smaller amounts, either on their own or to top up an existing feed ration when you might need to feed less than the recommended daily amount. The idea behind balancers is that they balance the diet of a horse by supplementing what lacks from their roughage. What he needs in this balancer is, therefore, dependent on the individual horse's requirements and the quality of his roughage.

► **Supplements.** These range from broad-spectrum vitamin and mineral supplements to more specific ones, such as those designed to aid hoof or joint health, calmers and supplements to support respiration. Horses in work fed a roughage-only diet may benefit from an all-round vitamin and mineral supplement, for example.



Water (top), roughage (top right) and a balanced diet – essential for horse health

FEEDING TOP TIPS



1 Like us, horses can't survive for long without water, so provide constant access to clean, fresh water at all times.

2 Buy good-quality feed from a reputable manufacturer so you know the ingredients are well-sourced and of a high standard.

3 It is essential to have a good worming plan in place. Worm damage can affect your horse's ability to digest his feed.

4 Clean buckets daily to maintain hygiene standards. After all, you wouldn't want to eat from a dirty plate!

5 Stick to the same feeding routine where possible. Horses are creatures of habit and may become stressed if their feeding pattern varies from day to day.

6 Know your horse's ideal weight. For articles and a video on how to monitor your horse's weight, visit horseandrideruk.com and type 'condition scoring' into the search box.

7 If your horse's workload increases or decreases, adjust his feed accordingly.

8 Consider whether your horse really needs everything you are putting in his bucket. If you are adding numerous supplements, for example, a feed balancer containing the extras he needs could be a more cost-effective option.

9 Horse owners need to be vigilant about laminitis all year round, so keep a close eye on your horse's weight. Obese horses are more likely to become laminitic than those at a healthy weight. Take special care during periods of sunny days and cold nights, such as in spring and autumn, as this is when fructan concentrations in the grass are high.

10 Introduce dietary changes gradually rather than changing feed overnight.

11 If in doubt about what to feed, talk to one of the feed companies' helplines or an independent horse nutritionist. They will be only too happy to offer you advice.