



HOW TO FEED THE SCHOOL HORSE

Many challenges arise when feeding school horses. While instructors want quiet horses in good physical condition, owners of equestrian facilities aim to control operating costs. Not to worry, it is possible to achieve both without too much compromise!

HAY

Hay is the foundation of the horse's diet. Choosing a quality hay will go a long way to save in concentrates and supplements. For example, an average 500 kg horse working 5 days a week which is fed a lower quality hay may need 3 kg of concentrates daily to maintain condition. By feeding a good quality second-cut hay, the amount of feed required is reduced to 1 kg per day and the difference in cost releases funds (about \$2 per horse per day) to purchase better quality hay. Assuming that a horse eats three quarters of a bale to one bale a day, it is possible to invest up to \$2 more per bale while maintaining the same operating cost per horse. Quality hay will also contain more protein, which helps to improve muscle mass. As herbivores, horses on a diet based on hay rather than concentrated will benefit from better digestive health. More mature (less caloric) hay is generally reserved for horses that are too fat and do not receive complete feed.

Tip: Use a hay net to reduce waste and slow down gluttonous behaviour. Bales and flakes vary in size. Do not hesitate to use a luggage scale to weigh your hay. A horse should eat at least 1.5%, ideally at least 2%, of its body weight in long-stemmed forage.

CONCENTRATES

Then, comes the choice of concentrates. First, you need to choose a source of energy appropriate to the horse's type of exercise. If the horse performs short and intense (anaerobic) work such as barrel racing, a minimum sugar intake is necessary, as this is the only energy source horses can use for this type of work. If the exercise is less intense over longer periods (aerobic exercise), then fibre and fat are the ideal energy sources. Also consider the temperament of the horse. In fact, some horses seem to react to feeds containing a lot of grains since they contain sugar (starch). If the horse's excitability is due to the feed, it should return to normal about three hours after a meal. If the excitable behaviour lasts all day, it is not feed-related but due to the horse's temperament.

Additionally, a feed with added amino acids could be beneficial. These feeds are a source of quality protein which allow the horse to develop and maintain muscle mass.

Choosing a feed based on the cost per bag does not guarantee savings. In fact, depending on the quality of the grains used and the processing to increase digestibility, the same amount of feed

will not necessarily generate the same amount of digestible energy. For example, 1.15 kg to 1.20 kg of cracked corn are needed to obtain same results as 1 kg of a feed containing extruded corn.

When it comes to feeds with fibre, it is important to choose carefully. Indeed, not all fibre sources offer the same digestibility and quality. For example, soybean hulls and beet pulp are high quality fibre compared to oat hulls and rice bran.

When calculating operating costs, it is therefore more relevant to calculate the cost of feeding per horse per day rather than the cost per bag of feed.

Tip: In Canada, the ingredient list does not appear on the feed labels, but manufacturers are required to provide it on request. Several companies publish ingredient lists on their websites. If you have questions about the digestibility of the ingredients and the ideal texture for your horse, do not hesitate to call an equine nutrition consultant.

VITAMINS AND MINERALS

Adding vitamins and minerals to the diet is always necessary. Even though feeds contain vitamins and minerals, to meet the horse's nutrient requirements, one would have to serve according to recommended amounts which rarely match his energy needs. Therefore, a horse requiring less feed than the recommended amount should receive a vitamin and mineral supplement. There are two reasons for this. First, dry hay, even of good quality, does not contain vitamins or sufficient minerals such as sulphur, manganese, copper and selenium. Although pasture provides more vitamins than hay, its mineral content is similar. Furthermore, in Quebec, the soil does not contain enough nutrients to meet the needs of the horse. One way or another, vitamin and mineral supplementation is necessary.

THE EFFECT OF THE DIET ON BEHAVIOUR

Unfortunately, some school horses do not receive proper nutrition for their energy expenditure. Undernutrition is seen by some stable managers as a way to keep their horses quiet. This is not the best plan. In fact, on the contrary, a horse whose ration is inadequate is more likely to exhibit behavioural problems than a well-fed horse. Why? Because weak muscles can result in pain and a reluctance to perform. An underfed horse will have trouble recovering after exercise and might become less cooperative in the next lessons. Anxiety may also appear when horses are deficient in vitamin B1. A horse whose hay is rationed is also at higher risk of developing stomach disorders and will display more aggressivity.

Tip: Be wary of over-supplementation. If you use products from multiple suppliers, make sure to keep the rations balanced.

QUANTITY AND EXAMPLES

How much hay, feed and supplements should be fed? Unless the horse suffers from obesity, hay should be fed free choice. This does not mean serving too much hay and letting part of it go to waste. In principle, a few twigs of the previous meal should still be left when you go out to feed.

If this is not enough to maintain your horse in good condition, some feed should be added to the ration to allow enough weight gain, making sure the ribs remain just visible. Vitamins and minerals must be adjusted according to the horse's weight, exercise levels and the amount of feed served. Refer to the product's supplier to know the recommended amounts depending on these factors.

A FEW CASE STUDIES

Apache the Quarter Horse

This horse weighs 450 kg and works 5 days a week for 1 to 2 hours a day. He has a good body condition score (6 out of 9) and good muscle mass. He is a relatively quiet horse, used for lessons for beginner and intermediate students.

With a lower quality hay (late season first cut, \$4 per bale), it would take 3 kg of feed (e.g. Simpli-T Concept) to meet his needs in energy and protein as well as a vitamin and mineral supplement (e.g. about 600 g of Equilizer). With a quality first-cut hay (\$5 per bale), it would be possible to remove the feed from the ration and serve only a vitamin and mineral supplement (e.g. about 1.1 kg of Equilizer), and therefore save money.

Maple the Thoroughbred

Thoroughbreds tend to be leaner and lack muscle mass. Their metabolism is less effective at transforming the diet into fat and muscle and so they usually cost more to feed, but what athletes! Their owners are sometimes afraid of overfeeding, thinking it would result in an overly energetic horse that is difficult to manage. They are indeed hot horses with energy to spare but as previously stated, a deficient diet will not help. Again, investing in quality hay will pay off in the long run. With a lower quality hay, Maple will need large amounts of feed to maintain adequate weight and muscle mass (e.g. about 3–4 kg of Trimax per day). On the other hand, with a quality second-cut hay, 1–2 kg of feed per day will probably be sufficient. Additionally, savings on feed can then be used to increase the amount of hay served. Care must be taken, though, if Maple has a sensitive digestive tract, it is best to avoid unprocessed grains. Also, if excessive energy is an issue, be sure to control or reduce the intake of sugars and starch (NSCs).

Fluffy the pony

This is the perfect candidate for first-cut hay. Ponies are often easy to keep in good condition, and hay is usually enough to meet their energy and protein needs. However, do not neglect to provide vitamin and mineral supplements since they promote strong hoof walls, a good immune system, endurance to work and quick recovery after exercise.

KEY POINTS TO REMEMBER

If the school horses work more in summer than in winter, it is important to adjust their diet as needed. When they work harder, they will need more calories, protein, minerals and vitamins to stay in good shape. Their diet must also be adjusted for work and rest days.

Investing in your school horses' nutrition will help maintain healthier, happier, willing-to-work horses that will ultimately be more enjoyable for your students.