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Close your eyes for a moment and try to picture the image of a horse. For many of us this conjures up an animal in the middle of a large meadow (the background depends on the type of riding...), grazing grass, alert but calm. This image of the horse in the wild reflects two key characteristics: the need for space and the habit of eating grass. In our studs, although life is very different from that in the open air, some basic conditions should be maintained, first of all the need for horses to eat if not grass, other fibrous food especially hay.

Hay ensures that the intestine of our friend functions correctly and is also an important source of nutrients. But which hay should you choose? How do you select it? What do you replace it with? How much should you give your horse? Here are some indications on how to use a widely used but much neglected food.

HAYS AND MEALS

What is the ultimate goal of a nutritionist? It is simple, it is that of providing a well balanced meal that contains all the nutrients a horse needs to live and breed. In order to achieve this, variable quantities of several foods are used, each of which has a specific function. The combination of the different foods creates a balance that goes beyond the composition of each ingredient. That is why, as the saying goes, there are balanced MEALS, rather than perfect foods. In the specific case of the horse, only the "complete" fodder can





be given on their own and will meet all the nutritional requirements, but these are compound foods. Milk is the only food that can be provided on its own, albeit for a very short time. For these reasons, the feeding of our animals usually consists of several foods, especially fodder (hay, grass...) and concentrates (barley, oats...). This leads us to a very important concept: the fodder must be chosen so that it can fill the nutrition gaps left by hay, and vice versa. Therefore, there are no types of hay that can balance all the meals, in the same way that not all the types of fodder can support any type of hays. A practical example will serve to clarify this further: alfalfa hay, widely used for feeding Quarter Horses, is rich in calcium and proteins, much more than other types traditionally used. Consequently, meals based on this type of hay include fodder that is low in proteins. That same fodder, if used with other types of hay, give poor results, because the food is not balanced. On the contrary, rich fodder, formulated to make up for poorquality hay, will not be useful if provided together with alfalfa hay, indeed they can cause fermentation in the intestine and, in the worst cases, colic, diarrhea and even laminitis. In these cases, the cause of the problem is not the food in itself, but its improper use.

WHICH TYPE OF HAY?

The most common type of hay to be found in our studs is "hay from first-crop polyphyte meadow". Let us briefly see what this means.

◆ First of all, hay is grass cut at a specific growing stage (usually the florescence) left to dry in fields according to suitable drying methods, then gathered and taken to a shed in bigger or smaller prism-sized stacks or cylindershaped bales.

◆ A polyphyte meadow is the one on which several types of grass can be found. More specifically, you could find grass belonging to several families, mainly Graminaceae and legumes.

• First crop denotes the grass sickled in May (this hay is also called May hay), when the meadows are flourishing and there is a large percentage of graminaceae. In subsequent crops (usually August and September) the percentage of legumes increases and, with them, the quantity of proteins. The percentage of fibers, instead, decreases.

The hay described above is rich in fibers, poor in proteins and calcium but horses love it. As this is by far the most popular type of hay, it is used as a reference for many types of Italian fodder, developed to make up for its wants. You can also find fodder that is ideal for being given together with alfalfa hay, hence not suitable for feeding horses together with polyphyte meadow hay.

As we said before, no type of hay is suitable for every occasion. The best advice we can give is not to change hay frequently and/or suddenly: this certainly causes problems because the microorganisms in the horse's intestines are "creatures of habit" so to speak, and do not like regular changes. A second piece of advice is to give preference to bealthy rather than rich hay. Poor hay can represent the basis for a correct nutrition, all you need to do is add a good fodder; on the contrary, unhealthy hay (for example full of dust or mold) will always create problems.

Pros and cons in brief

It is not easy to correctly evaluate hay without the support of an analysis laboratory. However, you can get some good indications also without the need for special equipment.

Color, for example, gives us an idea of its preservation status. Fresh hay preserves the green color of chlorophyll, which tends towards yellow over time (even inside the bales of any type). So you should use fresh hay. A grayish coloring is a sign of bad preservation, and the same can be said if you notice brown or black spots. If there are white spots, it means that there is mold.

The smell is also important, as fresh hay has a typical fragrant aroma, whereas alfalfa hay of better quality almost always smells like tobacco. On the other end of the scale, it is easy to detect the smell of mold. But beware of allergies! The fungus spores that can be found in hay, which are responsible for chronic obstructive bronchitis (also known as heaves) in our horses, can cause rhinitis and allergic conjunctivitis in humans: it happened to me several times, I smelled a moldy hay and my eyes immediately puffed up, I started to sneeze while the people around me were smiling ironically.

There are also other characteristics that can be detected. Dusty or soiled hays, if shaken, reveal their content in the form of a cloud of various colors; hay containing ditch grass can often cut because of the sharp edges of the grass itself; hay that is too dry, finally, tends to fray and horses do not like it.

In short: avoid hays that have been somehow altered, i.e. moldy, dusty, old or too dry. Give preference to fresh and fragrant hay. Simple, isn't it? And yet this is often overlooked in the stables when it is time to feed



horses with hay. Hay is just dumped in the boxes almost without looking at it, with the result that some unlucky animal might get uneatable food, due to negligence. Alfalfa hay is the most dangerous in this sense, because it is often moldy but mold is not evenly spread. In the same lot you might find perfect bales and dangerous ones, which should obviously be removed. Incidentally, moldy hay (and straw) cannot even be used as bedding, because it might trigger extremely serious respiratory allergies (chronic obstructive bronchitis) in predisposed animals, as we said before.

Hobson's choice?

If hay has got so many defects, why not replace it? Good idea. There are four options.

◆ First option. If a meadow is available, for most part of the year you can use the grass of good grazing land. It is certainly richer than hay, does not usually have problems and makes you save on concentrate. This solution is viable only if the land is big enough. In Italy, you often have to use small paddocks just to aid the moving of the horses, and grass has no real importance from a nutritional point of view.

◆ Second option. Use a complete fodder, which is used indoors and the nutrients are balanced. This option is ok in theory, but in practice it is better to have some straw available, in order to increase the daily food consumption timings. Eating a diet consisting entirely of pelleted feed takes much less time (digesting hay requires about 40 minutes for each kg, whereas digesting pelleted feeds, cereals and other feeds only takes 10 minutes). This leads to more free time and so it might generate the potential risk of boredom. As a result the horse could develop cribbing or other 'spooky' behavior.

◆ Third option: use ensiled foodstuffs. On the market you can find pre-dried ensiled grass for horses. This is usually without mold and their composition is stable enough, they are good products but not yet widely used, also because their cost is far higher than hay. Their use, however, requires a total review of the food quantity to be given.

• Fourth option: use artificially dried and cut-up grass. There are various types, mainly coming from alfalfa, sometimes enriched with other products such as molasses. This is excellent food, richer than hay, expensive but with a stable composition for which we can draw the same conclusion as before: they shorten consumption times and require a total review of the food quantity.

How much hay?

Luckily for us, the horse self-regulates on the quantity of hay to consume. Generally, diets that are poor in hay are better suited for sport horses, and this for various reasons. But in order to avoid any problem, they must have access to a minimum of 4-5 kg of hay a day. Competition horses can eat up to 7 kg, divided into at least two meals. Milking mares can need 9 kg and more. \Box



