The How and Why of Soaking Hay Fact Sheet

Introduction

The digestion system of horses and ponies is designed to accommodate steady grazing and for roughage to move continuously through the gut throughout the day. Most horses and ponies can survive on a diet based solely on forage (where forage encompasses plant-based feeds, including hay and haylage). Supplementary feeding with concentrated, high nutritional feeds needs to be undertaken with care and only when necessary, since this can lead to excess weight and be a cause of metabolic disease.

Ideally, horses and ponies should be fed forage daily that is equivalent to between 1 to 2 percent of their body weight (see Tables 1 and 2). You should weigh the forage provided to ensure that sufficient is being provided. Supplementary feeding should only then be necessary where the work being undertaken by the horse is sufficient to merit it and cannot be met through the provision of additional forage. The metabolism of individual horses and ponies is a major factor (which may also be breed-related) in determining how much forage and/or supplementary feed is required.

Table 1 - Hay Weight Calculation

Weight of horse	Total daily weight of food in kilograms by percentage of body weight						
	1.0%	1.2%	1.4%	1.5%	1.6%	1.8%	2.0%
200kg	2.0	2.4	2.8	3	3.2	3.6	4
250kg	2.5	3	3.5	3.8	4	4.5	5
300kg	3.0	3.6	4.2	4.5	4.8	5.4	6
350kg	3.5	4.2	4.9	5.3	5.6	6.3	7
400kg	4.0	4.8	5.6	6	6.4	7.2	8
450kg	4.5	5.4	6.3	6.6	7.2	8.1	9
500kg	5.0	6	7	7.5	8	9	10
550kg	5.5	6.6	7.7	8.3	8.8	9.9	11
600kg	6.0	7.2	8.4	9	9.6	10.8	12
650kg	6.5	7.8	9.1	9.6	10.4	11.7	13
700kg	7.0	8.4	9.8	10.5	11.2	12.6	14

Table 2 - Approximate Weight of Horses and Ponies

Height in hands	Pony	Cob	Thoroughbred lightweight	Sport Horse middleweight	Draught heavyweight
10	170-200				
11	200-240				
12	230-260				
12.2	250-310				
13	250-340				
13.2	280-380				
14	320-380	360-450			
14.2	350-400	380-480			
15		470-530	400-470	450-500	
15.2		500-580	440-500	470-520	
16			480-560	560-630	630-680
16.2			520-590	590-650	650-720

The nutritional value of forage is neither consistent nor totally predictable. The energy, protein, mineral and vitamin content is affected by where it was grown, the soil it was grown in, when it was harvested and the weather during growth. Hay also contains elements of dust, mould, fungi and bacteria, and other allergens. These can enter the lungs of the horse or pony, causing inflammation and impeding the transfer of oxygen from the lungs to the blood stream. The particle size (mostly invisible to the human eye) and amount of these elements will vary dependent on the hygienic quality of the hay.

It is important to monitor routinely the condition of your horse or pony to ensure that it is maintaining a healthy weight. This can be achieved using 'weight tapes' and 'body scoring'. The ABRS+ recommends the Blue Cross pamphlet 'Fat Horse Slim' (https://www.bluecross.org.uk/sites/default/files/d8/2020-05/Fat%20horse%20slim.pdf) which describes how to measure and manage the weight of your horse or pony.

Finally, you can get your hay analysed commercially to determine the nutritional content and whether it contains elements that drive the need for soaking.

When should you soak hay?

You may need to soak hay in water if:

- Your horse or pony has suffered Laminitis, has been diagnosed with a Metabolic disease or is has Chronic Obstructive Pulmonary Disease (COPD). You should confirm the requirement to do so with your vet.
- You believe the hay that you are using is of poor hygienic quality, but you should remember that soaking does reduce the nutritional value of the hay.
- Commercial analysis of the hay suggests that there is a need to do so

What happens when hay is soaked?

Hay contains protein, various fibre fractions, fats, water soluble carbohydrates (WSC), minerals and vitamins. You should soak hay for between 30 and 60 minutes in water. This will reduce WSC (mainly sugars) by between 30% and 40%, decrease potassium (K) and remove dust. Each of these elements plays a role in the diseases mentioned above. Soaking for longer than 60 minutes will remove further WSC but may also remove excessive amounts of other essential nutrients.

What is the Best Way to Soak Hay?

You should develop a solid routine for soaking hay. An easy method of soaking hay is to fill a hay net and then submerge it in a large container filled with fresh, clean water. Do not use drums that have been previously used to store chemicals. A new heavy-duty dustbin, for example, works well but you can buy hay soakers commercially. Remember, water volume is important.

Stuffing several hay nets into one large container with minimal water will not be as effective in removing WSC as a single hay net in abundant water. After the soaking period, the submerged hay should be pulled out and allowed to drain. Choose a hay net with smaller holes to avoid losing leaf in the water. You should clean the container every time you use it to reduce a build-up of residue and possible bacterial contamination.

Soaked hay will start to spoil when wet, particularly in hot weather. Therefore, as far as possible, soaked hay should be fed as soon as you are able to do so.