



The Stabled Horse, Part 2: Feeding the Stabled Horse

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The preceding issue discussed the reasons for stabling horses, classified stabled horses according to the hours per day and duration of stabling (Table I) and discussed management of stabled horses except the area of feeding.

Table I. Categories of Stabled Horses

Category	I	II	III	IV
Hours/day	20 or >	12-20	<12	Up to 12
Duration	Long	Long	Long	Short

All horses must be fed to meet their nutritional requirements regardless of where or how they are kept. The first criteria in feeding stabled horses is to insure that their nutritional needs are met since some have few or limited opportunities to obtain nutrients from grazing pasture forages.

A major concern in stabled horses is not to allow them to become too fat. Stabled horses are more likely to be too fat (a high body condition score) than too thin.

Hay

Horses are grazing animals by nature as they are forage consumers. Therefore, hay must be the first and main feed consideration in the development of all rations for stabled horses.

Most stabled horses need a good-quality grass hay fed at 2 pounds per 100 pounds of body weight. This level of good-quality hay will normally meet the mature pleasure horse's need for energy (carbohydrates and fats), protein and most minerals. Feeding a 2-to-1 calcium-to-phosphorus ratio mineral mix and a properly balanced vitamin supplement should correct any deficiencies in good-quality hay. A mineral mix and a vitamin supplement are needed when a lesser-quality hay is fed, especially for horses with no access to pasture and/or those stabled for long periods of time.

Hay wastage can amount to 20 percent. Yearlings fed on frozen ground wasted 18.5 percent of the hay fed. If hay

is fed on the stall floor, there will also be some wastage. One must account for this in determining how much hay to feed. If a 1,200-pound mature pleasure horse needs to consume 24 pounds of hay daily, feed at least 10 percent more hay, or about 27 pounds. If the horse cleans up this amount of hay, feed more if it is needed to maintain or increase body condition. Feed less hay if the horse leaves some. Horses will search through stemmy, poorer-quality hay seeking the leaves and finer stems, thus wasting more hay. Horses with limited access to pasture and fed lower-quality hay may tend to eat the coarser stems which can contribute to impaction colic, especially when the weather is cold and water consumption decreases.

Legume hay is often fed to young, growing horses; broodmares; and stallions. Feeding about 1.75 pounds per 100 pounds of body weight will normally provide a similar amount of energy and exceed the amount of protein provided by 2 pounds of grass hay per 100 pounds of body weight.

Under most conditions, pleasure horses do not need to be fed a legume hay. These hays are more expensive, the extra protein provided can add to the ammonia problem in stalls, and legume hays may cause diarrhea in some horses. If this situation occurs, the problem can be addressed by reducing the amount of legume hay fed to 1 pound per 100 pounds of body weight and feeding a grass hay to make up the remainder of the hay needed. Considerable leaf wastage will occur if legume hay is fed on the stall floor or in hay nets. Hay nets also can be dangerous, especially if tied low enough for a horse to catch a hoof in the hay net.

If stabled for considerable hours per day, horses will probably eat more of a lower-quality hay than they would if fed the same hay along with access to adequate pasture most of the day.

It is advisable to feed more hay in the evening (60 percent) and less in the morning (40 percent). For Category I

and II horses, it may be advisable to feed hay three times a day to insure that hay is available most of the time.

Feeding more than one type of forage to stabled horses can be beneficial. Horses offered more than one type of forage exhibited less tendency to eat straw bedding, thus reducing the risk of colic. They were also less likely to develop stable vices. Horses ate less of their preferred forage when more than one forage was available.

Poor-quality hay is difficult to chew and less digestible, which can result in colic. Decreased water intake, which is more likely to occur when the weather turns cold, along with poor-quality hay can result in impaction colic. Poor-quality hay should never be fed to horses at any time. Fair or below-average hay is less likely to be as high a risk factor as poor-quality hay. If possible, fair-quality hay should be fed only to horses on pasture. When the supply of average or above average hay is limited, fair-quality hay may have to be fed to stabled horses. In such cases, it should be fed only to mature pleasure horses. Pregnant mares; young, growing horses; moderate to intense performance horses; and lactating mares should be fed only average- or better-quality hay when stabled.

Since horses are prone to respiratory problems, feeding dusty hay to stabled horses can aggravate an existing problem or create a problem. One helpful management practice is to slightly wet hay just before feeding it. If any wetted hay remains at the next feeding, remove it. Slightly dusty hay can be fed outside with less risk. Beet pulp can be used in rations for horses with heaves, a respiratory problem greatly exacerbated by dusty hay.

Bedding is also another serious source of dust for stabled horses. Efforts to reduce dust by careful selection of hay and bedding, along with proper ventilation, are very important, especially for horses stabled most of the time, such as Category I and II horses.

Grain

Incorrect Precept #1. All stabled horses must be fed grain in rather large amounts.

Horses not ridden at all or only occasionally at a low performance level are considered idle horses with a maintenance-level nutritional requirement. Maintenance horses do not gain nor lose weight. They have the lowest nutritional needs for energy, protein, minerals and vitamins of nutritionally healthy horses. Some pleasure horses are ridden little and/or infrequently while others perform at a low level of activity most of the time. Those performing at low levels and/or only occasionally need be fed only slightly more than a maintenance horse. Feed a limited amount of grain (1 to 2 pounds) daily, if any at all, when an adequate amount of good-quality hay is fed and some pasture is available. These horses can often be kept in a good nutritional status by feeding them only good-quality hay; fresh, clean water; and trace mineralized salt. From a nutritional point of view, performance is described as light, moderate or intense, depending on the level or degree — not amount of time — of the performance activity.

Stabled performance, show and sale horses are often fed relatively large amounts of grain. Some show horses are fed 2 pounds or even more per 100 pounds of body weight daily. Feeding large amounts of grain increases the risk of

colic and founder. This situation is compounded with stabled horses (Category I and II horses) that do not receive adequate exercise daily.

Other stabled horses, such as stallions, broodmares and weanlings, are often fed more grain than needed to balance the nutritional intake from their hay. Most other horses stabled for long durations such as show, performance, sale, broodmares and weanlings are fed grain in amounts that make it unnecessary to feed a mineral-vitamin supplement since most commercial grain mixes are fortified with minerals and vitamins.

Salt

All stabled horses need about 2 ounces of trace mineralized salt daily. Trace mineralized salt is a blue or red salt contrasted to plain white salt. Trace mineralized salt can be mixed with the grain (usually at .5 to 1 percent) and/or provided in a free-choice manner. It may be in a loose or block form. Horses are not natural lickers so some may not obtain adequate trace mineralized salt from a block. If trace mineralized salt is added to the grain mix, providing extra trace mineralized salt free-choice is not a problem as long as adequate water is available.

Water

Water is a nutrient like carbohydrates, fats, protein, minerals and vitamins. Most stabled horses do not have any source of water except that provided in the stall unless water is available in their turn-out or pasture area. All horses should have a fresh, clean supply of water at all times, except when hot from performance or excessive exercise. A hot horse should never be placed in a stall until it has been properly cooled out. After being properly cooled out, it can have unlimited access to water.

Normally, mature horses drink 6 – 10 gallons of water daily. A high intake of protein and/or minerals results in greater water intake. Lactating broodmares may drink 50 percent to 70 percent more water. Intensity of performance greatly influences water intake since as much as 8 gallons can be lost as sweat daily. Heat and humidity also increase sweat loss and water intake.

Even young foals need additional water besides that from their dam's milk. Two-month-old foals will drink about 1.5 gallons of water daily.

Water restriction can be a serious matter. A detrimental level would be only 5.75 gallons of water for a 1,200-pound horse. Based on water restricted data, it was noted that 1.82 quarts or less of water per 100 pounds of body weight could be detrimental to a horse's welfare but probably not life threatening.

Adequate water intake can be a problem with stabled horses in hot weather, especially lactating broodmares. It may be necessary to provide two buckets of water in the stalls of such horses if automatic waterers are not used. If a horse has an empty water bucket in the evening after being stabled all or most of the day, a second bucket of water needs to be added.

Water buckets and automatic waterers should to be cleaned periodically. The sugars in feeds cause a slickness on the insides of water buckets and waterers. Some horses have a habit of drinking with grain in their mouths; thus, kernels fall into their water buckets. Some even dunk their

hay into their water bucket before chewing it. Water buckets should be emptied and refilled daily to help eliminate any possibility of mosquito breeding areas because of the risk of West Nile Virus. Metal buckets are not recommended for horses. Hard plastic buckets can break if kicked or impacted by a rambunctious horse and leave sharp edges exposed. Rubber buckets are the safest type, especially for stabled horses.

Body Condition

Incorrect Precept #2. Fat horses are an indication of a good horse person.

Fat horses have an increased risk for colic and founder, and their performance can be impeded. They offer a unique challenge to the horse owner. As noted, all horses must be fed their required nutrients. Feeding energy and protein above the required levels results in horses getting fatter. Horses are athletes. It is well recognized that fat athletes, human or equine, do not perform as well.

Body condition score (BCS) is a visual, hands-on method of determining the body fat content of a horse. Horses are scored from 1 – 9. A 9 horse is obese. A stabled, fat horse with a BCS of 8 – 9 is more at risk of colic and founder.

Monthly BCS can be a useful tool to reduce risk to stabled horses. If BCS increases above the desired level, a horse's energy intake exceeds its energy needs. One should immediately reduce the amount of grain fed. After this action, if the horse's BCS continues to increase or remains high, especially in the 8 – 9 range, grain may need to be reduced more or even eliminated from the ration. It may even be necessary to lower hay intake. It is advisable to never feed less than 1 pound of hay per 100 pounds of body weight. Another management option with obese horses is to feed a lower-quality hay. Horses with a BCS of 8 or 9 should not be fed legume hays which are higher in energy and protein than similar quality grass hays. Protein in excess of the body's requirement is converted to energy.

A moderate BCS of 5 – 6.5 should be a target for most pleasure and other stabled performance horses to keep the risk of colic and founder at a manageable level. Owners usually want halter and sale horses at a higher BCS level. Stabled stallions can be at a higher BCS level before the breeding season if they are adequately exercised. Broodmares that are known to be good milkers can have a BCS in the mid-to-low-7 range; however, broodmares that have a BCS of 8 – 9 do not milk as well as those with a BCS of 5.5 – 7.5. Therefore, their foals grow less rapidly compared to similar foals from mares with BCS of 5.5 to the 7s.

Horses performing light activities such as trail riding, pleasure showing, etc. can be in the BCS range of high 5 to 6.5. Moderate (ranch, barrel racing) to intense (racing, three-day events) performance horses appear to perform best in a BCS range of 5 – 5.5.

Summary

Horses must be fed to meet their nutritional needs at all times. Good-quality forage is the basis of all feeding programs, and it is especially critical for stabled horses. Horses stabled most of the time for long periods (Category I and II) should not be allowed to become too fat (BCS of 8 or 9).

The amount of grain fed to idle or maintenance horses should be limited, especially if horses are fat. As level of

production (pregnancy, lactation or growth) increases or performance intensifies, grain intake needs to be increased to meet energy needs. However, feeding excess grain increases the risk of colic and founder in stabled horses, especially if exercise is limited.

Good-quality grass hay is adequate for most performance horses that are stabled. Legume hay may be fed to late pregnant mares, lactating mares and young, growing horses. Offering more than one variety of hay can reduce stable vices and the tendency to eat bedding.

Water, trace mineralized salt and adequate exercise are important components in the feeding program for all horses, especially stabled ones.

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