Pasturing Guidelines for Horses

Horse owners wrestling with the choice of either pasturing their horses or keeping them in stalls should consider pasture as the best option. Horses are herbivores that evolved to walk and graze for 16 to 18 hours per day. When they are allowed to do so, the risks of digestive upset and stereotypies (vices, such as cribbing and weaving) are minimized. Pastured horses have the advantage of lower feed costs, more opportunity for exercise, and a lower incidence of disease, especially respiratory disease. They breathe clean, fresh air, thus minimizing the exposure to dust and molds common in barns. When they are allowed to move at will, muscles and joints are continually exercised. This is especially beneficial for older horses and horses with arthritis where the opportunity to move keeps joints supple.

Young horses or horses in training have increased bone density and fewer exercised-induced injuries when pastured versus stalled. However, careful management of pastures is necessary for both the productivity of the pasture and the health of the horse. Horses that are kept on pasture year-round usually adjust to the new grass as it grows. Most management problems occur when horses have been confined, fed a hay-grain ration through the winter, and then abruptly turned out on pasture in the spring.

As with any dietary change, it is necessary to gradually introduce horses to new pasture growth in order to avoid digestive upset. Spring pasture is a very nutrient-rich feed. The grass tends to be much higher in moisture content (75-85 percent), protein (greater than 20 percent), energy, vitamins, and minerals, than other times of the year. Energy and protein content of foliage can be as much as 50 percent higher in early vegetative growth, compared to late vegetative growth 12 weeks later. In addition, horses kept in stalls through the winter, then abruptly turned out onto pasture, will overeat because of the palatability of the lush green foliage. This over-consumption can put the horse at risk for certain nutrition-related concerns:

- Overweight/obesity - depending on individual metabolism, some horses, especially easy keepers, ponies, miniatures, and donkeys, will gain excessive weight on pasture alone.

- Loose stool - the higher moisture content and the change in ration can trigger a loose stool.

- Colic - not common in this instance, but any sudden ration change can cause excessive gas or an intestinal upset, leading to colic.

- Founder (laminitis) - is always a concern when energy in the ration increases abruptly, such as going from hay-based ration to pasture or sudden increase in the amount of grain consumed (grain overload). Ponies and donkeys are more susceptible to this than full-sized horses.

Spring grass also contains high levels of carbohydrates, especially a sugar called fructan. Consumption of large amounts of fructan is similar to other forms of carbohydrate (grain) overload and can lead to the development of laminitis. There are several ways horse owners may prevent or minimize problems when introducing horses to pasture in the spring. The first way is to feed hay immediately before they are turned out on pasture during the adjustment period. When horses have a full stomach, they are less likely to overeat when turned out on pasture. In addition, since they are not hungry, they will be more selective about what they eat. Secondly, restrict grazing time. Initially, horses should be allowed to graze only about 30 minutes once to twice a day on the first day of turnout. Subsequent days, grazing time can be increased by five to ten minutes per day until they are grazing four to six hours a day and they have adapted to the green grass. Another time when grazing may need to be restricted is in the fall. Increased rainfall often leads to rapid plant growth and lush pasture. The nutritional value is similar to that of spring pasture, and the health concerns of obesity and laminitis are again a major concern. Since horses differ in their energy utilization, it is important to carefully monitor the horse's body condition score (BCS). A horse's BCS is judged on a 1-9 scale, with 1 equaling emaciated, and 9 equaling very obese. Pleasure horse owners should try to maintain their horses between 5.5 and 6.5 BCS. This is a healthy BCS for the horse. At this body score, the ribs are nicely covered with a layer of fat but are easily felt. Horses with a BCS greater than 6.5 will need to have pasture time limited in order to avoid founder and obesity. A slight or no fat cover indicates that the horse's BCS is between 2 and 4, and that the horse is too thin. Horse owners that suspect their horse's BCS is less than 4 should contact their veterinarian for help in determining whether this is a dietary or medical problem, or both. Owners that are uncertain about their horse's BCS should contact a veterinarian to do a physical examination. Equine metabolic syndrome (EMS) has been associated with obesity and lack of exercise. EMS was previously known as hypothyroidism, or peripheral Cushing's.

It is not only important to maintain the health of the horse, but also the health of the pasture. The amount of nutrition available from pasture will depend on a number of criteria, such as horse density, rainfall, length of growing season, soil type, plant species, and pasture management. In order to provide total nutrition from pasture, one to two acres per horse are