tein. By far the largest component of the dry matter in molasses is sugar, which explains the high DE value of molasses. Molasses is used most frequently in feeds for its effect on palatability, and on improving the homogeneity of the feed. It reduces sifting out of ingredients, dustiness and fines. So why is it frequently said that molasses may cause colic?

There are two obvious relationships that molasses may have to digestive upset. Especially in hot environments, (and depending on the brix of the molasses), there is a greater tendency of "sweet feeds" to mold than in the case of pelleted feeds or dry mixes. Part of this problem can be eliminated by using some mold inhibitors in the feed and/or molasses. Many molasses contain some proprionic acid to deal with this problem.

The other and more obvious question one must deal with is the possibility that the amount of sugar in the molasses will overwhelm the ability of the small intestine to absorb glucose, resulting in some of the glucose (sugar) reaching the cecum where it would be fermented, much like starch that escaped digestion in the small intestine. Most sweet feeds contain only from 5-10% molasses. Feeds containing large amounts of beet pulp contain on average three times the molasses that a typical sweet feed would contain and are actually used in many cases in horses that chronically colic. Of course most sweet feeds that contain molasses have for the most part a high grain content which translates into a high starch concentrate. If the level of starch in a single meal exceeds .35-.4% of body weight then there is an increased risk of starch spilling into the cecum which can lead to colic.

"Pellets cause horses to choke"

This wives' tale is a holdover from the days when people were trying to find ammunition to justify not feeding pellets. There is no reason at all to think that horses are any more likely to choke on pellets than on any other physical form of feed if they are fed and eat in a normal manner. If, on the other hand, horses bolt their feed there is as great a chance that they may choke on pelleted feed as on other forms of feed. The solution to the problem of choke is to feed in shallow, rather than deep, feed troughs. For the aggressive eater, several large smooth stones should be placed in the feed trough. This requires the horse to sort around the rocks to eat and therefore rate of intake is slowed.

If there is not some kind of esophageal pathology which prevents normal passage, there is no difference in choke rate between types of feed. If there is something wrong with the esophagus, the best way to feed the affected horse is to make a gruel or very liquid mash out of the feed to be offered. I have been involved in several cases of this sort and have found that dissolving pelleted feeds, adding some corn oil and even using some dissolved alfalfa pellets to provide some fiber, is an effective way of meeting nutrient requirements. I have used this strategy in the short term while esophageal lesions heal and in the long term where there are permanent esophageal strictures.

"Crimped oats are better than whole oats"

There is a pervading opinion among horsemen that crimped oats are significantly more digestible than whole oats. Most of the digestibility studies that have been conducted comparing crimped and whole oats indicate that there is at most a 6% increase in the digestibility of crimped oats when compared to whole oats. This indicates that there is in most cases no real justification for using crimped oats over whole oats.

Oats and Alfalfa are all my horses need"

Oats and alfalfa are both good ingredients of a ration. However, they do not supply adequate nutrient content for a balanced ration. This is particularly true with young developing horses. In weanlings, fiber digestion is not efficient; therefore, when alfalfa is used to supply protein to the ration it is not available for absorption . Lysine is an amino acid that is necessary for growth and development of foals and the oat-alfalfa combination only supplies 86% of the lysine requirement. Mineral requirements are not adequate either with the oat-alfalfa combination only supplying 90% of the calcium requirement, 65% of the phosphorus, and less than 50% of the copper, zinc and manganese requirements. Free choice minerals have intake problems so relying on this is not a solution. Foals on an oat-alfalfa diet tend to get fatter than foals on a balanced diet who tend to have greater height at the withers at the same age. Developmental Orthopedic Disease will be less prevalent in foals fed a balanced ration Oats and alfalfa supply "Empty" calories which are calories that are not supported with the other nutrients required.

"Pellets cause colic"

Pellets are not a cause of colic. Pellets do, however, weigh more than a textured feed and using the same volume measurement will cause one to overfeed if the difference is not allowed for. Horses can also eat pellets at a faster rate so one should feed a pelleted feed in large bottom feeders so that a horse cannot eat large amounts too quickly.

Processing of feed actually makes the starch more digestible pre-
cecally, thereby reducing the risk of starch reaching the hindgut. When excessive amounts of starch exceeds the ability of the foregut to digest and absorb (pre-cecal digestion) it will enter the cecum. When this happen,s colic from starch overload can result.

A good "rule of thumb" is to not feed over 0.5% of body weight at a time to prevent starch overload. (e.g. 5 lbs at a meal to a 1,000 lb horse) A low fiber, high starch pellet will increase the risk of starch entering the hindgut, whereas a high fiber, low starch pellet will decrease the risk of colic. The same holds true for textured feed as well.

Coastal Bermuda hay causes colic"

Ideally Coastal Bermuda should be harvested at 30 days or less. Stage of maturity is critical if good quality hay is desired. Hay that is harvested too mature becomes more indigestible with increasing time, particularly when heat stress is present. The lignin content goes up which is indigestible and can contribute to impaction. The rules for assessing the quality of Coastal hay are the same as for any other type of hay. Good quality Coastal Bermuda hay does not cause colic. Poor quality hay of any kind can contribute to colic.