

The Future of Equine Nutrition

Dr. Randel Raub
U.S. Feed Operations
Ridley, Inc., Mankato, MN

As with most "future" indicators, regardless of the issue, economics will have some consideration. If there is not an appreciable improvement in personal economics equine numbers will remain stable to declining. More pasture / hay land probably will continue to be displaced by row crops due to the continued expansion of plant based energy production such as ethanol and biomass. Also, as world population continues to grow, more pressure will be placed on available plant resources to satisfy an increasing demand of food and fiber. In addition, as larger segments of the population become more economically advantaged the population will increase their demand for animal protein which in turn will increase demand of grains and forage sources. Cyclic weather conditions also indicate continued adverse conditions to forage production, particularly in the western U.S. Thus, supply and demand principles will drive increased cost for hay, pasture, and grains. With that will come increased interest in alternative forage options in the form of by-products from row crop processing industries such as ethanol, biomass, food, fiber and other plant based industries yet to be developed. Economics also will drive methodologies for more efficient methods to provide food sources to horses in order to reduce waste, increase shelf life, and reduce transportation and storage costs.

Feeding for improved health will continue to be an opportunity for nutrition to impact the lives of equine. We continue to learn more across species, including humans, as to how nutrition may have a direct and specific impact on the immune system. More specifically, current and future research focused on the effects of specific nutrients on the gastro-intestinal tissue and it's relation to immune function. In addition to this aspect of nutrition and health, we also continue to learn more about individual genetic interactions with specific types and amounts of nutrients and the impact on individual health and well-being. Such knowledge may provide for specific dietary recommendations for specific individual animals based on their unique genetic profile to better address health issues to which an individual may have a greater predisposition. At some point we may be able to identify, via genetic assessment, an individual horse's degree of risk associated with a particular health issue, i.e. colic, laminitis, etc. After identifying the degree of risk we then may be able to prescribe a dietary regimen that will significantly reduce the risk.

The more we learn the more we realize how much we do not know. Learning more about equine nutrition in the future will be determined by how much the equine industry is willing to support nutrition research.