The Brooks Hoofbeat

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BROOKS PERFORMANCE HORSE FEEDS
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Brooks Shares the stage with Alltech and Omega Alpha

Hawks Landing Equestrian Store in Phelpston (near Elmvale) was the site of an informative information night in May. Cindy Schickendanz from Alltech spoke about the dangers posed by Mycotoxins and how manufacturers like Brooks protect feed products from potential harm. She also went through an explanation of the benefits of chelated minerals. Information is available from Cindy at ***CSchickedanz@alltech.com 519-546-5042***

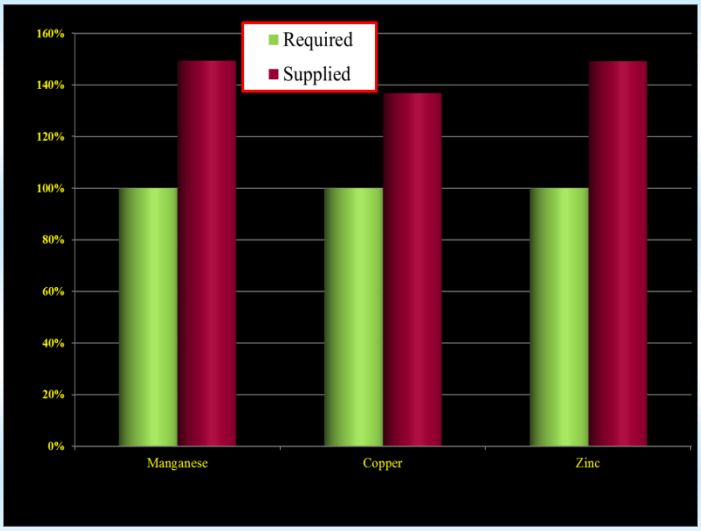
Omega Alpha was represented by Claire Smith who commented on some of their more popular products. ***omegaalphaequine.com***

In the photo some of the participants compare notes. Dan Irwin of Brooks Feeds discussed how we go about developing a feeding program for a stable or an individual horse.
A video at ***www.brooksfeeds.com*** details this process as well.

Dr. John Baird of the Ontario Veterinary College sent this photo of a two day old Warmblood foal. The mare was fed Brook's Phase II during gestation.

Lactating mares require large amounts of energy along with protein, minerals and vitamins. Mares with foals on lush pasture should be monitored to ensure that the foal is not growing too rapidly.

For information on feeding broodmares and foals contact a Brooks representative or visit our interactive web site. www.brooksfeeds.com



Trace Minerals Important for Growing Horses

Manganese is required for normal bone formation. A deficiency can cause poor growth, lameness, shortness and bowing of legs, and enlarged joints.

Copper has many functions however much of the focus is on the role of copper on the synthesis of cartilage during bone development. Low intakes of copper have been linked to increased incidence of DOD..

Zinc is necessary for bone metabolism, reproduction, and immunity. Too much zinc in the diet can interfere with copper metabolism so it is a ratio we check when balancing diets.

Iron is necessary for the formation of hemoglobin and also is important to enzyme systems.

Mare's milk is very low in trace minerals. For this reason trace mineral supplementation is very important during the last three months of gestation because the fetus stores iron, zinc, copper, and manganese in its liver for use after it is born.

By the time the foal is three months of age this store of trace minerals has dwindled and the foal should be supplemented with a properly formulated growing ration and balancer pellet.

Equine Behaviour and Feed
Is There a Link?

There is certainly a great deal of controversy about whether the type of feed you give your horse affects its behavior. There are two schools of thought about whether feed affects behavior.

The more traditional way of thinking, and one held by many scientists, maintains that the only important factor governing feeding and behavior is caloric intake. If a horse is underfed and in negative energy balance, then it will not be as active or aggressive as when it is well nourished. Advocates of this point of view insist that when a horse's behavior changes when it is on full feed, all the owner is really seeing is an expression of that individual's "true colors." They are more likely to suggest that the horse simply needs more training to become controllable when it is well fed. They would further insist that all you will get when you overfeed your horse grain is a fat horse.

A second school of thought acknowledges what so many horseman believe is indeed real. Certain types of feed may affect some behaviors in some horses. As of yet there is no concrete proof of this, but I would like to propose a mechanism of how feed might affect behavior. I must emphasize, however, that at this point this is only a theory and much more research is needed before it can be stated as fact.

When horses are fed a high-carbohydrate diet, they appeared to be more excitable and their heart rates were higher during an exercise test than when the same horses were fed a high-fat diet. In certain studies at the Kentucky Equine Research (KER) facility using objective measures of behavior, a difference was detected when horses were fed the same number of calories from different sources.

Why would grain affect behavior? When a grain meal is fed, blood glucose levels increase. The extent of increase depends on the type of diet and some horses have much higher blood glucose peaks than others. This much is fact.

Now it's time for the theory. In humans, it has been suggested that many mental disorders such as schizophrenia, mania, and depression are the result of uncontrollable fluctuations of brain glucose levels acting in conjunction with insulin resistance. These fluctuations affect the production of the neurotransmitter serotonin. The behavioral disorder mania has been associated with hyperglycemia (high blood sugar) and hyperserotonergia (too much serotonin). Mania is defined as excitement of psychotic proportions manifested by mental and physical hyperactivity, disorganization of behavior, and elevation of mood. Does that sound like a horse you know?

Horses evolved eating diets that were fairly low in nonstructural carbohydrates (NSC), so in the wild they would not experience wide fluctuations in blood glucose and insulin. Insulin resistance is also common in certain horses, so it is conceivable that these horses may experience high levels of glucose and insulin in the brain. In rats, injection of insulin caused an increase in 5-HT (the major metabolite of serotonin). KER has conducted research demonstrating that supplemental trivalent chromium (from chromium yeast) increased the sensitivity of tissue to insulin so that less insulin was produced in response to a grain meal. Blood glucose was also lower, indicating that it was more efficiently cleared from the blood. Interestingly, there have been numerous reports from the field that horses given supplemental chromium appeared calmer and experienced a lower incidence of tying-up. Since nervousness is associated with many cases of tying-up, it is intriguing to speculate if these two problems (nervousness and tying-up) are related to insulin resistance in certain horses.

Again, it should be emphasized that the connection between behavior and feeding is only a theory, but if we assume that it is true, then what should we feed to reduce the high peaks in blood glucose seen in certain horses? Some guidelines include:

▪ Keep meal sizes small. Blood glucose increases in response to the size of the meal.

▪ Feed plenty of forage. Feed at least 1% of body weight to all horses and increase that to at least 1.5% in horses that are particularly excitable. If nothing else, they will spend more time eating and less time being bored.

▪ Add fat to the diet. Substituting fat for carbohydrates will reduce glycemic response. Fat contains about three times as much digestible energy (DE) as oats and 2.5 times as much DE as corn. Also, research at KER has shown that adding fat will actually reduce glycemic response of the NSC fraction of the diet, possibly by slowing gastric emptying.

▪ Substitute fermentable fiber for NSC. Certain fiber sources (beet pulp, soy hulls) can replace part of the grain in a horse's concentrate.

Reprinted courtesy of Kentucky Equine Research

Stoney Lake Equestrian has had some significant accomplishments of late. Tina Irwin riding Winston won all three classes, the Prix St. George, Intermediare 1 and the Intermediare 1 Freestyle at the May23rd Burlington CDI.

Jaimey Irwin riding Lindor's Finest placed 2nd in the CDI Grand Prix Freestyle at the Kentucky CDI at the Kentucky Horse Park near Lexington.

Several of the students and clients of Stoney Lake have had some great results as well. Visit ***www.stoneylakeequestrian.ca*** for details.

Congratulations to the Irwins. We are proud to be part of your success.

Product Profile ***Neigh-lox Advanced***

New product addresses digestive tract Issues

- Maintains normal stomach pH to reduce ulcers.
- Reduces the risk of hind gut ulcers through better starch digestion
- Increased digestion of starch reduces the risk of laminitis and colic
- Increases the growth of beneficial bacteria to enhance digestion through fermentable yeast metabolites

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