CAVALOR®

FEED FOR THOUGHT

DOES THE PERFORMANCE HORSE NEED A LOW NSC FEED?

As we discussed a few weeks back, nonstructural carbohydrates, more commonly known as NSCs, have become the buzzword of the equine nutrition world. There is ample evidence that diets high in NSCs contribute to the development of insulin resistance in horses at rest. However, there has been no research examining the effects of exercise on the development of insulin resistance until the University of Guelph looked into this scenario.

What the researchers at the University of Guelph did is take 14 Standardbred horses that had previously been fed only forage cubes to establish a baseline. They then split the horses into two groups: those fed a high NSC (53.1% NSC & 2.3% fat) concentrate and those fed a high fat (9.1% NSC and 14.2% NSC) concentrate. Each group then underwent 6 weeks of no work except 2-3 hours of turnout daily, then 7 weeks of conditioning 5 days a week for just 15-20 minutes per day. Insulin and glucose levels were measured at the end of each period and compared to the baseline.

As expected, the high NSC group's ability to remove glucose from the bloodstream reduced by 30% during the no exercise phase, which implies insulin insensitivity and glucose intolerance. However, when this group of horses was introduced to just light, regular work, the horses' ability to respond to insulin seemed to be fully restored. What this suggests is that even relatively little work is sufficient to reverse the effects of insulin resistance associated with high NSC levels in feed.

Practically speaking, this all goes back to choosing the appropriate feed for your horse and being comfortable with switching up your horse's ration based on their workload. If your horse is currently on winter break, a lower NSC feed, such as Cavalor Strucomix Senior or Cavalor Strucomix Original, would be more appropriate than one designed for feeding active sport horses, such as Cavalor Perfomix or Cavalor Superforce. This can also change throughout the competition year as different needs come up. For example, an upper level eventer may be placed on Cavalor Perfomix at the beginning of the year and then switched to Cavalor Endurix about 2 months before their first big CCI event of the year to better feed the more endurance-based fitness needed for the longer courses. To put it simply, chose the appropriate fuel for the workload.

For those interested in reading the full paper discussed in this Feed for Thought, the complete reference is cited below.

Pratt S.E., Geor R.J., and McCutcheon L.J. 2006. Effects of dietary energy source and physical conditioning on insulin sensititivity and glucose tolerance in Standardbred horses. Equine Vet. J., Suppl. 36. 579-584.