New Information about ALTERNATIVE THERAPIES

The figure above shows the wins in each study group, as a percentage of starts. There were 24 HMB-supplemented horses and 24 controls. The groups were randomly selected.

Peggy Miller
Animal Science Dept.
Iowa State University
Ames, IA 50011
512-294-3161

HMB (β-hydroxy-β-methylbutyrate)

A study by Dr. Peggy Miller at Iowa State University, reported at the 1998 AESM meeting, showed that supplementing HMB to training and racing Thoroughbreds increases overall performance most likely through a decrease in training and race related muscle damage and increased aerobic capacity. She pointed out that in previous studies in humans HMB has been shown to decrease muscle protein breakdown and the recovery period associated with intense exercise. Recent studies in humans and horses have shown that HMB can also possibly increase endurance through an increase in aerobic capacity.

The following study was performed to determine if supplemental HMB could be of benefit to training and racing Thoroughbreds. The horses arrived at the racetrack approximately five weeks before the start of racing. After an initial blood test and body weight measurement, 48 horses were randomly assigned to receive either an HMB or a control supplement after grouping by sex and age. Supplements were fed in coded packages such that grooms or trainers did not know which supplement their horses were receiving. One packet was fed twice daily which provided for a total of 10 g CaHMB/d for HMB-fed horses and 3.6 g of ground limestone for the control-fed-horses. After a three week initial training period, a second blood sample was taken just prior to the start of the racing meet.

The HMB-supplemented horses had an almost 5% increase in red blood cells. In addition HMB-fed horses had a trend for increased globulin and white blood cells. After the first race HMB-supplemented horses had 46% lower creatine kinase (CK) levels. Overall CK levels remained the same after the first race but by the end of the meet HMB-supplemented horses had a 15% decrease in other muscle-related enzymes. Improvement in horse condition resulted in an 18.8% win rate for HMB-supplemented horses compared with an 11.4% win rate for the controls.

Axial muscle segmental therapy and muscle reeducation

Muscle stabilization exercises of the regional and segmental musculature of the back, trunk and postural training on the preventative effects of the occurrence of back injuries as a prophylactic guide and for pre-event/post-event therapy for increased performance and maintenance. “In practice, muscular injuries and disturbances of spinal column anatomy are the frequent source of lameness encountered today.” (1) “In humans, 80% of all back cases can be attributed to soft tissue conditions, (i.e., muscular or ligamentous sprain, postural abnormalities, poor muscle tone or neuromuscular disease) and that physical fitness and conditioning have been found to have significant preventative effects on the occurrence of back injuries.” (2) The relevance of these facts are imperative to know for cause and prevention. Another important factor is spinal instability. Instability may be defined as a loss of integrity of soft tissue intersegmental control,