



GROSTRONG® Professional: Carbohydrates and the Equine Athlete

Carbohydrates: The Key to Power, Stamina, and Recovery

GROSTRONG® Professional is formulated with a controlled level of non-structural carbohydrates (NSC) neither excessively high nor inappropriately low, designed to fuel performance horses. While restricting NSC is important for horses with metabolic disorders, limiting it in equine athletes can be harmful. Carbohydrates are critical for maximizing performance, sustaining high-intensity effort, and supporting post-exercise recovery. These principles are well established in both equine and human exercise science.

Substrate utilization during exercise depends on intensity. At low intensities, Type I (slow-twitch) fibers dominate, burning fatty acids through β -oxidation. As intensity rises, especially near 60–80% VO_2max Type II (fast-twitch) fibers take over, relying on carbohydrate metabolism for rapid energy production. This metabolic shift highlights the essential role of glucose and glycogen in supporting high-intensity equine performance.

When NSC intake falls short, horses can fatigue prematurely, recover poorly, and perform below potential. Often, this is not a conditioning issue but a nutritional one: the energy systems needed for work aren't being fueled properly.

A Closer Look at Carbohydrate Contribution

If a horse eats 20 lb of hay at 13% NSC, that's 2.6 lb (1180 g) of NSC daily. Adding 4 lb of GROSTRONG® Professional at 20.5% NSC contributes an additional 0.8 lb (372 g) of starch and sugar. By comparison, 4 lb of Kalm 'N EZ® or Essential K® (13% NSC) provides 0.5 lb (236 g) of additional starch and sugar. This means GROSTRONG® Professional adds only about 135 g more NSC than the other options about the same as what is in 2.5 lb of hay. Since no one is usually worried about a horse eating a couple extra pounds of forage, it doesn't make sense to view the same amount of NSC from a feed supplement as a problem.

When to Choose GROSTRONG® Professional

In a healthy horse, this modest addition has no measurable negative metabolic effect. For animals with insulin dysregulation or equine metabolic syndrome, caution is warranted, and GROSTRONG® Professional would not be recommended. As this formula was designed for the equine athlete, not metabolically compromised horses. In those cases, a ration balancer such as GROSTRONG® Ration Balancer 33 is the appropriate choice.

The Smart Choice for Strong, Competitive Horses

In short, GROSTRONG® Professional provides the right balance of NSC and protein to meet the demands of performance horses. It supports energy metabolism during intense work, aids recovery, and avoids the pitfalls of under-fueling. When evaluated in context of total diet and actual intake, it delivers sound, science-based nutrition for equine athletes.

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