

Hay Management for Horses with Equine Metabolic Syndrome (EMS) and Cushing's Disease (PPID)

NSC levels in the diet are important to know for horses with EMS/PPID.

NSC = Nonstructural Carbohydrate(s)

NSC is present in forages that supply fiber in the horse's diet.

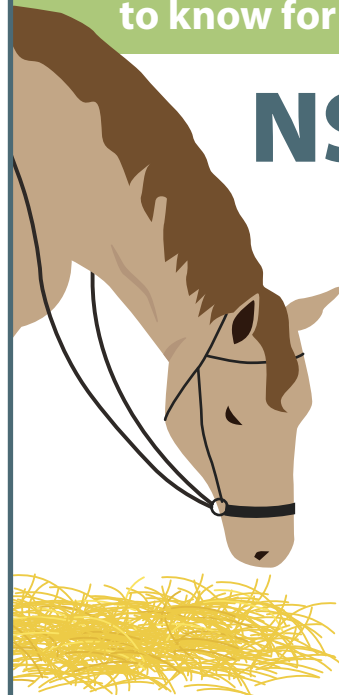
Plant Carbohydrates

Simple carbs		Rapidly fermentable carbs			Slowly fermentable carbs	
Fructan	Sugar	Starch	Resistant starch	Soluble fiber	Cellulose	Hemi-cellulose



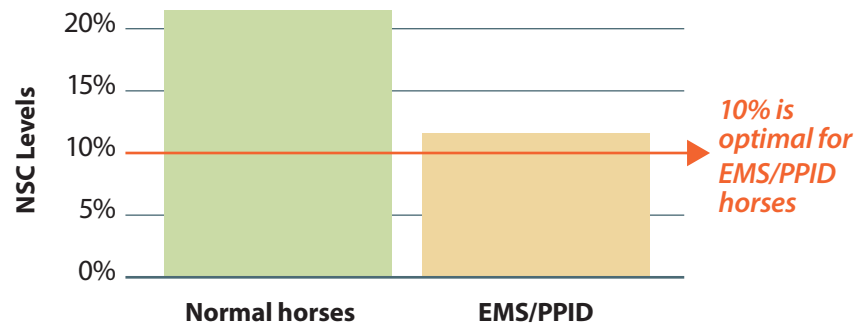
- WSC: water-soluble carbohydrates
- NSC: nonstructural carbohydrates
- Crude fiber

NSC includes: starch, sugar and fructan



Normal horses can tolerate NSC levels of 20% or higher.

NSC Tolerance Levels in Horses



10% NSC is the optimal level for horses with PPID or EMS.

Test your hay to determine the true NSC value.

Mixed grass hay	
Dry matter	91%
Crude protein	12%
Crude fiber	25%
WSC	10.6%
Starch	1.8%
NSC	12.4%
Crude fat	2.6%

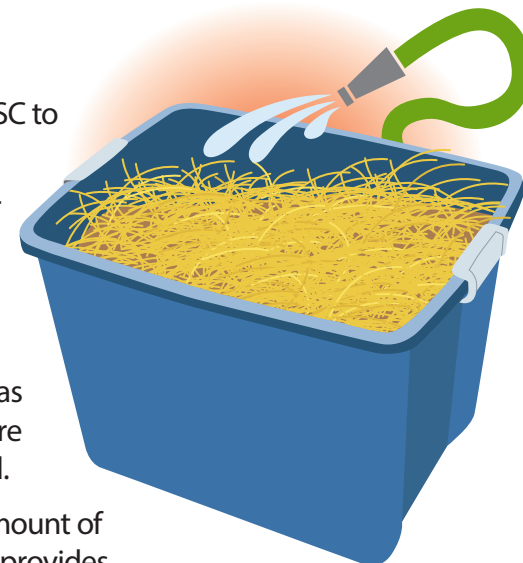


Typical grass hays can range from 8% to 18% NSC. You can't tell the NSC by looking at hay; you must get it tested.

There are also several specialized hay chaff or hay cube products on the market that meet the NSC requirements for EMS/PPID horses.

Soaking hay:

- Soak hay that is above 10% NSC to reduce sugar content.
- Completely submerge hay for 60 minutes in cold water, or 30 minutes in hot water.
- Drain well before feeding.
- Soaking should only be used as a stopgap method until a more appropriate hay can be found.
- Soaking also decreases the amount of minerals and calories the hay provides.



To encourage weight loss in overweight horses:

1 Over a 30-day period, cut back on daily forage intake until you are feeding 1.25% of ideal body weight per day.

2 Never feed less than 1% of ideal body weight per day of hay, as this is unhealthy.

3 Once ideal weight is attained, increase daily level of hay fed to between 1.5% and 2% of ideal body weight.

Provide Adequate Vitamin and Mineral Nutrition

Skip the handful of grain and instead offer 2 to 4 ounces of Micro-Phase™ along with your hay.

Micro-Phase is designed to provide the nutrients missing from hay, ensuring your horse gets the nutrition he or she needs without the unnecessary calories.



To learn more about the factors that affect NSC levels in hay, search for NSC in any search box at KPPusa.com.



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