



## Pasture·in·a·Bag

Nutritional Analysis		As Fed*	In Dry Form*	Benefits
Crude Fiber	Max	11%	23%	Required for proper gut motility and digestion. High fiber intake reduces incidence of diarrhea, colic and laminitis.
Crude Protein	Min	9%	20%	Building material for body. Improves growth, endurance, reproduction and performance of animals (lactation, fleece, horn, hooves, etc.)
Lysine	Min	0.40%	0.80%	An essential amino acid for growth and constitutes a percentage of muscle mass.
Methionine	Min	0.10%	0.20%	An essential amino acid for growth and constitutes a percentage of muscle mass.
Crude Fat	Min	1.80%	4.00%	Increases energy. Improves palatability.
Neutral Detergent Fiber (NDF)	Max	15%	33%	For alfalfa, lower numbers reflect low levels of stem matter and high levels of nutrient-dense leaf matter.
Acid Detergent Fiber (ADF)	Max	15%	34%	Indicates the amount of acid soluble fiber and lignin in forage. An ADF % of <35% for alfalfa indicates premium quality.
Total Digestive Nutrients (TDN)	Min	29.30%	65%	Indicates premium to supreme quality alfalfa
Calcium (Ca)	Min	0.70%	1.60%	Required for bone development and strength. Important in muscle contraction, metabolism, blood clotting and activation of enzymes.
Phosphorus (P)	Min	0.10%	0.20%	Metabolizes fat, carbohydrates, calcium and sugar. Important in bone growth, production of energy and proper utilization of vitamins.
Copper (Cu)	Min	3.6 ppm	8 ppm	Required in several enzyme systems that maintain and synthesize connective tissue. Aids reproduction and promotes immune system. Supports hair color in ruminants.
Zinc (Zn)	Min	8.1 ppm	18 ppm	Required in several enzyme systems for growth and maintenance of cartilage, hoof formation and healthy skin.
Magnesium (Mg)	Min	0.20%	0.50%	Assist with muscle contraction and is an important ion in the blood. Is an activator of many enzymes.

Potassium (K)	Min	1.10%	2.80%	Important in regulation of osmotic pressure and acid-base balance within body. Regulates thyroid function.
Sodium (Na)	Min	0.09%	0.20%	Critical in maintaining central nervous system. Acts with potassium to regulate fluid content of cells.
Iron (Fe)	Min	68 ppm	150 ppm	Critical in oxygen transport in blood and cellular respiration.
Manganese (Mn)	Min	13 ppm	28 ppm	Required for carbohydrate and fat metabolism and normal reproductive function. Also important in cartilage formation.
Selenium (Se)	Min	.09 ppm	.20 ppm	Instrumental in proper muscle growth and function. Prevents white muscle disease in young.
Selenium (Se)	Max	.18 ppm	.40 ppm	Selenium in small quantities aids in preventing cell damage.
Vitamin A	Min	180 iu/lb.	400 iu/lb.	Helps ensure red blood cell production, tendon strength, fertility and healthy skin.
Vitamin D <sub>3</sub>	Min	675 iu/lb.	1500 iu/lb.	Regulates the absorption of calcium and magnesium and the excretion of phosphorus.
Vitamin E	Min	45 iu/lb.	100 iu/lb.	Improves stamina and performance of livestock. Aids in muscle strength.
Natural Plant Juices	Max	55%	0%	Eliminates dust. Reduces risk of impaction. More easily chewed by senior animals.

Sugars and Starches		As Fed*	In Dry Form*	Benefits
Non-fiber Carbohydrates (NFC)	Min	13.50%	30%	Consists of starch, fermentation acids and pectin. This is a measure of the energy in feeds..
Starch	Min/Max	1.2% to 1.5%	2.7% to 3.1%	A polysaccharide used by the animal as an energy source.
Non-Structural Carbohydrates (NSC)	Min/Max	3.5% to 4.2%	5.6% to 9.0%	A measure of easily digestible carbohydrates, usually consisting of sugars and starches. In current lab analyses, this component is further broken down into separate analyses for starch, water soluble carbohydrates, and ethanol soluble carbohydrates (see below).
Water Soluble Carbohydrates	Min/Max	2.3% to 2.8%	5.1% to 6.2%	Simple sugars and fructans. Fructans digest in the large intestine of a horse. Excessive amounts can upset the microbial populations leading to colic or laminitis.
Ethanol Soluble Carbohydrates (ESC)	Min/Max	1.5% to 1.9%	3.3% to 4.2%	A subset of WSC that includes the sugars that are primarily digested in the small intestine and give a true glycemic response in horses.

Fermentation Results		As Fed*	In Dry Form*	Benefits
Lactic Acid	Min	3.33%	7.40%	The goal of good fermentation is to maximize lactic acid. The more lactic acid, the quicker the fermentation was accomplished, dropping pH and preserving nutrients. A quick drop in pH reduces protein breakdown and stops unwanted microbial growth.
VFA Score	Min	N/A	9.1	The VFA Score is a "Report Card" provided by the independent forage laboratory on the success or failure of the fermentation process on a scale of 1 to 10. A score of 8 or higher is considered "good to excellent."

**\* As Fed vs Dry Form**

The dry matter basis assumes all the moisture was removed. This is presented to help people make a comparison between various feeds, all which have some amount of moisture. The "as fed" takes the moisture into account. The moisture of course has no nutritional value, but in the case of Chaffhaye it's that moisture that increases the nutritional value by increasing the digestibility and absorption.