

DIGESTIBILITY OF NUTRIENTS FOR PERENNIAL PEANUT, ALFALFA, BERMUDA GRASS AND BAHIA GRASS HAYS IN EQUINE

Few types of forage can be successfully harvested for hay in the Southeastern United States. A comparison was made between a new tropical legume with potential for the horse industry, perennial peanut (Florigraze variety) hay, traditionally imported legume alfalfa hay, and two grass hays, Coastal Bermuda grass and Bahia grass.

A 4X4 Latin square design feeding trial using four mature geldings of light breed types and 26-day periods was conducted. Each period consisted of a 3 day adjustment, 13 day ad lib forage intake and 10 day 80% of ad lib forage intake. A total fecal collection using harness and bag was made the last 5 days of each period. See the results in the table below.

Perennial peanut hay (also called rhizomal or forage peanut) is more closely equivalent to alfalfa than to the grass hays studied in both nutrient content and digestibility. Significantly greater voluntary intake of the peanut hay resulted in greater positive weight changes than any of the other hays. To our knowledge, none of the horses had been exposed to peanut hay prior to the experiment and all accepted it immediately.

The Bahia grass hay, though consumed at over 1.5% of body weight, produced serious weight losses (avg. 70 lb. per horse for 26 day period) and is not recommended as a sole nutrient source for horses. Observations of larger numbers of horses of many breeds support the high palatability and high intakes of perennial peanut hay seen in this experiment.

	Perennial Peanut	Alfalfa	Bermuda	Bahia
Voluntary Intake as % BW	3.18	2.45	2.77	1.52
Avg. Daily Body Wt. Change, lb.	+ 1.05	+ 0.31	+ 0.37	- 2.68
Nutrient Content:				
Digestible Dry Matter, %	50	54	36	26
Digestible Energy, Mcal/lb	1.14	1.25	0.88	0.67
Crude Protein, %	15.9	19.7	14.4	7.1
*Calcium, %	1.00	1.41	0.32	0.28
*Phosphorus, %	0.35	0.21	0.20	0.21

*NRC Values