



Use Of Hydrolyzed Feather Meal In Vigortone Forage Pro R 44%

Hydrolyzed feather meal (HFM) is defined by AAFCO (American Association of Feed Control Officials) as the product resulting from the treatment under pressure of clean, undecomposed feathers from slaughtered poultry, free of additives and/or accelerants. It typically contains (dry matter basis) 87% crude protein, 8% fat, 16% ADF, 0.54% calcium, and 0.39% phosphorus, and has NEm and NEg values of 0.71 and 0.43 mcal/lb, respectively.

HFM is a concentrated source of protein that allows the formulation of higher protein products like range tubs and **Vigortone's Forage Pro R 44%** without the use of nonprotein nitrogen ingredients such as urea. Unlike earlier forms of feather meal, which were simply dried and ground feathers, hydrolysis of modern-day feather meal disrupts the keratinous, or structural, bonds to improve its utilization as a source of protein. Presented in Tables 1 through 3 is a review of feeding trials with hydrolyzed feather meal for ruminants.

Table 1. Four Digestibility Tests With Hydrolyzed Feather Meal

Locations	Type	Protein Sources (No. Of Samples)	True Protein Digestibility, %	Escape Protein Digestibility, %
NE & MN	Lambs	Soybean meal (2)	92	73
		Corn gluten meal (1)	97	95
		Hydrolyzed feather meal (9)	88	81
		Blood meal (2)	87	86

Table 2. General Responses To Hydrolyzed Feather Meal (HFM) Reported Via Abstracts

Location	Type	Protein Sources*	Results
NC	Holsteins, first 12 weeks of lactation	SBM or HFM	Similar DMI & milk production
NE	Growing beef cattle	CGM or HFM	Nitrogen retention of HFM comparable to that of CGM
OK	Dairy goats	SBM or HFM	No difference in milk production, % fat, and % protein
FL	Holsteins, early to mid-lactation	SBM or HFM	Comparable milk production in corn silage-based TMR
PA	Holsteins, first 60 days of lactation	SBM or HFM/BM	Similar DMI & milk production
VA	Holsteins, early to mid-lactation	SBM or HFM	HFM was palatable & effective bypass at 1.5 lb/day
IN	Growing beef cattle	SBM or HFM/Urea	Same rate of gain when urea was fed with HFM
ND	Crossbred beef cows, 2 years	SUN or HFM/BM	Similar bodyweight maintenance & milk production
WY	Growing beef cattle	BRM or HFM/BM	Comparable rates of ruminal degradation

*SBM = soybean meal, CGM = corn gluten meal, BM = blood meal, SUN = sunflower meal, BRM = brome hay

(continued)

Table 3. Hydrolyzed Feather Meal/Blood Meal (HFM/BM) For Wintering Stockers, Florida

	Molasses & Soybean Meal	Molasses & HFM/BM
No. steers	52	53
Initial weight, lb	508	525
Daily gain, lb	0.97	1.07
Feed/gain, dry matter basis	10.2	9.8
Initial hip height, in.	45.3	45.3
Hip height increase, in.	2.8	2.8
Initial BCS	5.3	5.3
Change in BCS	-0.5	-0.3
Plasma urea nitrogen, day 0	12.4	12.0
Plasma urea nitrogen, avg. of days 27, 55, & 101	16.5	18.8

The use of hydrolyzed feather meal in Forage Pro R 44% is in compliance with FDA's regulation governing restricted-use proteins (Title 21, CFR, Part 589.2000, Animal Proteins Restricted from Use in Ruminant Feed). HFM is not categorized as a

restricted-use protein. North American Nutrition Companies, Inc. is certified by the American Feed Industry Association (AFIA) as being in compliance with this FDA ruling.