



# Beef Briefs

## The Latest Information on Beef Cattle Nutrition



### NUMBERS\$ MATTER

By: Cor Harder

Calling on farmers, I frequently hear the comment protein (particularly DDGS and Gluten Feed) are expensive. There is no arguing that DDGS at \$335.00/mt is costly compared to \$150.00/mt. Unfortunately, all protein products are priced on protein content and sometimes on particular amino acids. For the most part, protein and energy follow each other to some degree, even though they serve vastly different roles in the nutritional requirements of the animal.

Even if the price gap between energy and protein cost would seem to warrant diet change, it is not as simple as deciding to increase or decrease protein or energy in an effort to save on input cost. Depending on the genetic makeup of the animals, stage of growth, as well as marketing goals, there may be some room to shuffle the energy and protein around, but that has its limits as well. Research done at the University of Minnesota shows the effect that protein has on the performance of feedlot cattle (Table 1). One group of animals was fed an 11% CP diet, and the other a 13.2% CP diet.

The initial weight of the animals was very similar for both groups. Average daily gain (ADG) improved by 6.3% with the 13.2% CP diet. Increasing the protein in the diet also improved feed to gain (FTG) by 2.9%. The author noted that higher ADG required higher dietary crude protein concentrations in the diet to support growth. With the current feed costs, does this extra gain make up for the extra feed costs? Table 2 shows the feed cost associated with feeding the higher CP diet.

With the current feed costs, does this extra gain make up for the extra feed costs? Table 2 shows the feed cost associated with feeding the higher CP diet.



Cont. >>

*Inside this Issue:*

NUMBERS\$ MATTER

By: Cor Harder

### FEATURING...

## KENPAL'S KING OF CREEP

A HIGHLY-PALATABLE CREEP  
FEED FOR CALVES



- Developed to promote feed intake in calves
- Helps increase weaning weights
- Helps achieve and maintain a healthy hair coat
- See results with top sale prices for calves

**GETS CALVES OFF TO  
THE RIGHT START**

Volume 6, Issue 2  
April 2013

69819 London Road, RR #1, Centralia, Ontario, Canada, N0M 1K0

Tel: (519) 228-6444 or 1-800-265-2904 • Fax (519) 228-6560 • Email [kpalen@kenpal.on.ca](mailto:kpalen@kenpal.on.ca) • [www.kenpal.on.ca](http://www.kenpal.on.ca)

**Table 1. Means (weighted) for daily gain, dry matter intake and feed efficiency (DM required/gain; FTG) of steers fed high or low dietary crude protein concentrations.**

Item	Dietary Crude Protein, %	
	11	13
Initial Body Weight, lb	780	782
Final Body Weight, lb	1192	1213
ADG, lb/d	3.17 <sup>a</sup>	3.37 <sup>b</sup>
DMI, lb/d	20.39 <sup>a</sup>	20.92 <sup>b</sup>
FTG	6.46 <sup>a</sup>	6.28 <sup>b</sup>
CPI <sup>c</sup> , lb/d	2.22 <sup>a</sup>	2.77 <sup>b</sup>
CPG <sup>d</sup> , lb/d	0.708 <sup>a</sup>	0.832 <sup>b</sup>

<sup>a,b</sup> Means differ (P < .0001). <sup>d</sup> Crude protein intake. <sup>e</sup> Crude protein/gain.

Source: DiCostanzo, 1996

In order to establish feed cost, I ran two diets, one at 11% CP and the other at 13.2% CP. To reflect the gains in the trials, I adjusted the energy and environmental factors until the ADG and the Dry Matter Intake (DMI) matched the data set.

Table 2 demonstrates that feeding a 13.2% CP diet vs. an 11% CP diet increases the feed cost per head by \$21.35 for the high CP diet, while Table 3 demonstrates a \$22.60 advantage per head in selling price for the high CP diet group due to heavier weights. If we only consider feed cost on a \$/head basis, the 11% CP diet is the cheaper feeding program.

Cont. >>



## SUCCESS WITH KENPAL'S KING OF CREEP™ & BEEF NURSE COW

### GET YOUR CALVES OFF TO THE RIGHT START WITH KENPAL'S KING OF CREEP™



Paul and Tim Klopp own and operate Cedar Villa Angus Farms; a 150 Black Angus Cow Herd and cash crop operation in Zurich, Ontario. They started feeding Kenpal's King of Creep™ to their calves 6 years ago, and quickly started seeing the benefits. All the calves are fed free choice with self creep feeders. The main benefits they find from using Kenpal's King of Creep™ are; heavier weaning weights and healthy calves.

Shortly after switching to Kenpal's King of Creep™, Paul and Tim also decided to feed their cows Kenpal's Beef Nurse Cow, which they feed free choice year round. They found that their cow's mineral intake improved after switching to Kenpal. The health of the cows and the calves born is great, the cows breed back quickly and have high conception rates.

A portion of Paul and Tim's calves go to their own freezer beef trade, while the remainder get sold as stockers.

Paul and Tim look forward to continuing to see the benefits from feeding high quality products to their cows.

Paul and Tim Klopp  
Cedar Villa Angus Farms  
Zurich, ON

Table 3 shows the economics, i.e. the net \$/head after adjusting for differences in purchase cost, selling price and feed cost. Assuming that the cattle fed the 11% CP diet sold at an equal price per pound to the cattle fed the 13.2% CP diet, there would be a \$ 1.25/ head advantage to feeding the higher CP diet. Feeding higher protein diets may increase lean gain in cattle rather than just fattening the cattle. There is good reason to believe that there will be a price difference between the selling price for cattle fed the low CP diet vs. the high CP diet. A term the beef industry uses to describe low lean gain in cattle is “greasy cattle” (or we could say they gained FAT as opposed to LEAN). A lower selling price for cattle on the low CP diet would have to be considered in the overall economics as well.

Table 4 shows the impact that a \$0.10 per pound reduction in selling price would have on the overall profitability. Because of the higher sale weight for cattle fed the 13.2% CP diet, and the \$0.10 loss in selling price for cattle fed the 11% CP diet, there is an economic advantage of \$120.45 /head for the 13.2% CP diet after adjusting for increased feed cost and purchase price per head. (Selling price per head \$1455.60 high CP diet - selling price per head \$1311.20 low CP diet = \$144.40 – \$21.35 higher feed cost for cattle fed the 13.2% CP diet, - \$2.60 higher purchase cost 13.2% CP diet group = \$120.45). That is a significant amount of money lost by feeding the 11% CP diet. The \$0.10 lower selling price is for demonstration purposes only. There is however good reason to assume a lower selling price due to the possibility of “greasy cattle” syndrome. Also, keep in mind that not all cattle may respond to the low CP diets as shown in the research data.

Considering that both energy and protein are near an all time high, these data clearly demonstrate the benefits of feeding the higher CP diet, even at today’s commodity prices. Based on the research data and current feed costs, there is still an advantage to feeding the higher CP diet. Since most animals respond well to feeding proper CP levels in the diets, there appears to more risk by not feeding adequate CP.

Further, there is a significant difference in the number of animals that can be fed with the same quantity of silage (roughly 18%) when using DDGS to formulate a 13.2% CP diet compared to the 11% CP diet. With the cost of land exploding exponentially, getting the most from every acre will be a necessity. Properly balanced rations should help to optimize profitability.

<b>Table 2 – Feed Cost / Head</b>		
Diet CP, %	11	13.2
Cost/lb Gain	0.67	0.69
Gain Per Animal	412	431
Total Feed Cost/Animal	276.04	297.39
Difference Feed Cost (\$)		21.35
Using \$65/T for corn silage, \$335/T for DDGS, \$228/T for cobmeal		

<b>Table 3 – Equal Selling Price</b>		
Diet CP, %	11	13.2
Purchase Price \$/lb	1.30	1.30
Initial BW, lb	780	782
Purchase Cost/ Head	1,014.00	1,016.60
Selling Price \$/lb *	1.20	1.20
Final BW, lb	1,192	1,213
Selling Price \$/Head	1,430.40	1,455.60
Difference Selling Price \$/Head <sup>a</sup>		22.60
*Assuming equal selling price for both groups of cattle. <sup>a</sup> taking into account the difference in purchase cost		

Cont. >>



**Table 4 – Reduced Selling Price**

Diet CP, %	11	13.2
Purchase Price \$/lb	1.30	1.30
Initial BW, lb	780	782
Purchase Cost/ Head	1,014.00	1,016.60
Selling Price \$/lb **	1.10	1.20
Final BW, lb	1,192	1,213
Selling Price \$/Head	1,311.20	1,455.60
Difference Selling Price \$/Head <sup>a</sup>		141.80

\*\*Assuming a \$0.10 reduction in selling price for cattle fed the low CP diet.

<sup>a</sup>taking into account the difference in purchase cost

In conclusion, not all cattle may respond as these data demonstrate to different CP levels in the diet. Some cattle may just not grow as well even though they are not as predisposed to fat gain. Equal cattle in terms of quality, health and genetic potential should be close to equal in selling price if fed right, and sold in the same market environment. It should also be noted, this research did not focus on vitamins and mineral supplementations, which can have a significant effect on the health and performance of animals as well.



## SILO GUARD® II FORAGE ADDITIVE FOR ALFALFA & CORN SILAGES & BALED HAY

### WHY FIGHT THE FORAGE BATTLE?

LET MOTHER NATURE SOLVE THE PROBLEM WITH THE HELP OF  
SILO GUARD® II Forage Additive for Alfalfa, Corn Silages and Baled Hay



**VALUE OF DRY MATTER SAVED  
- TREATMENT COST  
= DOLLARS SAVED**

**DRY GRANULAR PRODUCT OR READY-TO-USE LIQUID • APPLICATORS • TECH SUPPORT**

**WE APPRECIATE YOUR BUSINESS**

69819 London Road, RR #1, Centralia, Ontario, Canada, N0M 1K0

Tel: (519) 228-6444 or 1-800-265-2904 • Fax (519) 228-6560 • Email [kpalen@kenpal.on.ca](mailto:kpalen@kenpal.on.ca) • [www.kenpal.on.ca](http://www.kenpal.on.ca)