Net Energy for Growing & Finishing Beef Cattle – Part 2

NE values of feeds + feed intake can be used to:

Predict amount of feed required for particular gain (programmed feeding)

For example, used in heifer development

Programmed Feeding Example

Ingredient	% of diet	NE_m, Mcal/kg	NE_m supplied, Mcal/kg	NE_g, Mcal/kg	NE_g supplied, Mcal/kg
Corn	3	2.24	***0.03 x 2.24 = 0.0672***	1.55	***0.03 x 1.55 = 0.0465***
Alfalfa	97	1.12	***0.97 x 1.12 = 1.086***	0.54	***0.97 x 0.54 = 0.524***
Total	100	----------	***1.15***	----------	***0.57***

The diet fed above supplies: ***1.15*** Mcal/kg of NE_m, and ***0.57*** Mcal/kg of NE_g

600 lb calf (1,200 finished weight)
Want 1.0 lb/d ADG
How much of the above diet do we need to feed?

Requirements (from Table 7):

5.16 Mcal NEm for maintenance

1.42 Mcal NEg for gain

Diet composition:

1.15 Mcal/kg NEm

0.57 Mcal/kg NEg

5.16 Mcal NEm/1.15 Mcal/kg NEm = 4.49 kg for maintenance
1.42 Mcal NEg/0.57 Mcal/kg NEg = 2.49 kg for gain
Total = 4.49 kg + 2.49 kg = 6.98 kg alfalfa
Convert to lbs
6.98 kg /0.454 = 15.4 lb diet