

Determining Monetary Values of Feedstuffs

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Concentrates are always a high proportion of the cost of a feed ration due to their contribution as primary energy and protein sources in dairy feeds. Dairy producers can use alternative feeds to: 1) reduce cost of the ration, and 2) replace some of the corn and soybean meal. A simple formula for determining feed value is presented here based on the market value of corn meal and soybean meal. To determine the value of an alternative feedstuff, you need to know the following: the cost/ton of DM, the CP content, and the TDN content of corn, soybean meal, and the alternate feed.



Item	TDN %	CP %	Cost/ton
Corn Meal	89	9.6	\$ 242
Soybean Meal	81	48.0	\$ 421
Example: Alternative Feedstuff = Barley			
Barley	83	12.4	\$ 229
To calculate value of barley, use the following equation:			
$A = [(TDN \text{ of corn meal} \times CP \text{ of barley}) - (CP \text{ of corn meal} \times TDN \text{ of barley})] / [TDN \text{ of corn meal} \times CP \text{ of soybean meal} - (CP \text{ of corn meal} \times TDN \text{ of soybean meal})]$			
$A = [(89 \times 12.4) - (9.6 \times 83)] / [(89 \times 48.0) - (9.6 \times 81)] = 306.8/3494.4 = 0.09$			
$B = [(CP \text{ of barley}) - (CP \text{ of soybean meal} \times A)] / (CP \text{ of corn meal}) = [(12.4) - (48.0 \times 0.09)] / 9.6 = .842$			
$\text{Value/ton of barley} = (A \times \$ \text{ per ton of soybean meal}) + (B \times \$ \text{ per ton of corn meal})$			
$\text{Value/ton of barley} = (0.09 \times \$421) + (0.842 \times \$242) = \$37.89 + \$203.76 = \241.65			

Based on this information barley would be a good buy. For barley not to be a good buy it would have to be priced above \$241.65/ton. The current price is \$229, so barley can enter a ration, resulting in a cost savings for the producer, and replace some of the corn and soybean meal.



About the Author

Dr. Pete Erickson is Professor of Dairy Management and Extension Dairy Specialist at the University of New Hampshire. His primary research area is in the area of optimal colostrum production and management through feeding of the prepartum cow and the newborn calf. He also works in the area of calf and heifer nutrition along with the feeding of alternative feedstuffs.

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References

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