Evaluating Feed Costs

To determine the most cost-effective feedstuff, the cost per unit of nutrient supplied must be calculated. Keep in mind that you are buying a specific nutrient, either protein or energy. Mineral requirements typically can be met with a less expensive free choice salt/mineral program. You do not want to pay for something you don’t need!

1. Since most feeds are priced on a $ per ton basis, determine the total pounds of the nutrient in 1 ton of feed. Be sure to use the appropriate DM/as-fed conversions based on whether or not you are using DM or As-fed feed composition values. Prices are always based on as-fed weights (i.e., the ton that is being priced is a ton as-fed). (Reminder: 2,000 lb in a ton.)

Example:  20% CP cubes (DM basis), $340/ton, 90% DM
2,000 lb x 0.90 = 1,800 lb DM in ton; 1,800 lb DM x 0.20 = 360 lb CP in ton

2. Determine the cost per pound of nutrient. Divide the per-ton price of feed by the pounds of actual nutrient contained in a ton.

Example: ($340/ton)/360 lb CP in a ton = $ 0.94/ lb CP; Use this figure in your price comparisons for different feeds.

Here are some examples:

1. 18% CP alfalfa (DM basis), $180/ton, 88% DM

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2,000 \text{ lb} \times 0.88 = 1,760 \text{ lb DM in ton}; \quad 1,760 \text{ lb DM} \times 0.18 = 316.8 \text{ lb CP in ton}
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\frac{180}{316.8} \text{ lb CP} = \$0.56/\text{lb CP}
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3. 30% CP liquid supplement (as-fed analysis), $400/ton, 65% DM

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2,000 \text{ lb} \times 0.30 = 600 \text{ lb CP in ton}; \quad \frac{400}{600} \text{ lb CP} = \$0.66/\text{lb CP}
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4. Soybean meal, 78% TDN (as-fed analysis), 45% CP (as-fed analysis), $504/ton (DO BOTH TDN and CP)

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2,000 \text{ lb} \times 0.78 = 1,560 \text{ lb TDN in ton}; \quad \frac{504}{1,560} \text{ lb TDN} = \$0.32/\text{lb TDN}
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2,000 \text{ lb} \times 0.45 = 900 \text{ lb CP in ton}; \quad \frac{504}{900} \text{ lb CP} = \$0.56/\text{lb CP}
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5. Commercial supplement, 75% TDN (DM basis), 38% CP (DM basis), $361/ton, 92% DM (DO BOTH TDN and CP)

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2,000 \text{ lb} \times 0.92 = 1,840 \text{ lb DM in ton}; \quad 1,840 \text{ lb DM} \times 0.75 = 1,380 \text{ lb TDN in ton}
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\frac{361}{1,380} \text{ lb TDN} = \$0.26/\text{lb TDN}
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1,840 \text{ lb DM} \times 0.38 = 699.2 \text{ lb CP in ton}; \quad \frac{361}{699.2} \text{ lb CP} = \$0.52/\text{lb CP}
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