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.)

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Example: 20% CP cubes (DM basis), $340/ton, 90% DM 2,000 \text{ lb } \times 0.90 = 1,800 \text{ lb DM in ton}; 1,800 lb DM x 0.20 = 360 lb CP in ton
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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: $(\$340/\tan)/360$ 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}; 1,760 \text{ lb DM } \times 0.18 = 316.8 \text{ lb CP in ton} ($180/ton)/316.8 lb CP = $0.56/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 \text{ in ton; } (\$400/\text{ton})/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 \text{ in ton}; \ (\$504/\text{ton})/1,560 \text{ lb } TDN = \$0.32/\text{lb } TDN \\ 2,000 \text{ lb } \times 0.45 = 900 \text{ lb } CP \text{ in ton}; \ (\$504/\text{ton})/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 } x \text{ } 0.92 = 1,840 \text{ lb } DM \text{ in ton}; \ 1,840 \text{ lb } DM \text{ } x \text{ } 0.75 = 1,380 \text{ lb } TDN \text{ in ton}  ($361/ton)/1,380 lb TDN = \$0.26/\text{lb } TDN 1,840 lb DM \text{ } x \text{ } 0.38 = 699.2 \text{ lb } CP \text{ in ton}; \ (\$361/\text{ton})/699.2 \text{ lb } CP = \$0.52/\text{lb } CP
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