



Determining the True Value of Dairy Feeds

V.E. Cabrera

University of Wisconsin-Madison Dairy Science

DairyMGT.info

FeedVal2012

Dairy Management UW-Extension
University of Wisconsin-Madison

THE UNIVERSITY OF WISCONSIN MADISON **UW Extension**

Home Tools Projects Publications Presentations Links
About Awards Contact News People Opportunities Gallery

Dairy Management

Dairy Management site is designed to support dairy farming decision-making focusing on model-based scientific research. The ultimate goal is to provide user-friendly computerized decision support systems to help dairy farms improve their economic performance. Dr. Victor Cabrera focuses on model-based decision support in dairy cattle and in dairy farm production systems. Dr. Cabrera's primary interest is to improve cost-efficiency and profitability along with environmental stewardship in dairy farms by using simulation techniques, artificial intelligence, and expert systems. Dr. Cabrera's research and Extension programs involve interdisciplinary and participatory approaches towards the creation of user-friendly decision support systems. As an Extension Specialist, Dr. Cabrera works in close relationships with county-based Extension faculty, dairy producers, consultants, and related industry.

Opportunities

- [Ph.D. Student Opportunity - New!](#)

Latest Projects

- [Improving Dairy Farm Sustainability](#)
- [Genomic Selection and Herd Management](#)
- [Dairy Reproduction Decision Support Tools](#)
- [Strategies of Pasture Supplementation](#)
- [Improving Dairy Cow Fertility](#)


UW

- [University of Wisconsin - Madison](#)
- [UW - Cooperative Extension](#)
- [UW - Dairy Science](#)
- [Dairy Cattle Reproduction](#)
- [Dairy Cattle Nutrition](#)
- [Milk Quality](#)
- [UW Dairy Nutrient](#)
- [Understanding Dairy Markets](#)
- [UW Center for Dairy Profitability](#)

Helpful Link

- [Repro Money Program](#)

Contact



Victor E. Cabrera, Ph.D.
Assistant Professor
Extension Specialist Dairy Management
279 Animal Sciences
1675 Observatory Dr.
Madison, WI 53706
(608) 265-8508
vcabrera@wisc.edu
More...

Admin Portal
Click Above to reach the Administrator Portal.

Tweets Follow @vecabrera

Victor E. Cabrera @vecabrera 21 Aug
UW-Madison Dairy Cattle Center Facts & Figures
news.cals.wisc.edu/wp-content/upl...

Victor E. Cabrera @vecabrera 19 Aug
interiote.com.br/curso-avancado...
fb.me/2jK2#vht

Tweet to @vecabrera

Like 4 Send

Feeding

- 🔍 [FeedVal 2012](#)
- 🔍 [Grouping Strategies for Feeding Lactating Dairy Cattle](#)
- 🔍 [Optigen® Evaluator](#)
- 🔍 [Income Over Feed Supplement Cost](#)
- 🔍 [Dairy Extension Feed Cost Evaluator](#)
- 🔍 [Corn Feeding Strategies](#)
- 🔍 [Income Over Feed Cost](#)
- 🔍 [Dairy Ration Feed Additive Break-Even Analysis](#)

Heifers

- 🔍 [Cost-Benefit of Accelerated Liquid Feeding Program for Dairy Calves](#)
- 🔍 [Economic Value of Sexed Semen Programs for Dairy Heifers](#)
- 🔍 [Heifer Replacement](#)
- 🔍 [Heifer Break-Even](#)

Reproduction

- 🔍 [UW-DairyRepro\\$Plus: A Reproductive Analysis Tool that Includes Heat Detection Devices](#)
- 🔍 [Economic Value of Sexed Semen Programs for Dairy Heifers](#)
- 🔍 [UW-DairyRepro\\$: A Reproductive Economic Analysis Tool](#)
- 🔍 [Exploring Timing of Pregnancy Impact on Income Over Feed Cost](#)
- 🔍 [Dairy Reproductive Economic Analysis](#)

Production

- 🔍 [Milk Curve Fitter](#)
- 🔍 [Decision Support System Program for Dairy Production and Expansion](#)
- 🔍 [Economic Analysis of Switching from 2X to 3X Milking](#)
- 🔍 [Lactation Benchmark Curves for Wisconsin](#)
- 🔍 [Economic Evaluation of using rbST](#)
- 🔍 [Alfalfa Yield Predictor: Using a Computer Application to Predict Irrigated Alfalfa Yield](#)

Replacement

- 🔍 [The Economic Value of a Dairy Cow](#)
- 🔍 [Value of a Springer](#)
- 🔍 [Heifer Replacement](#)
- 🔍 [Heifer Break-Even](#)
- 🔍 [Herd Structure Simulation](#)

Financial

- 🔍 [LGM-Dairy Analyzer](#)
- 🔍 [Working Capital Decision Support System](#)
- 🔍 [The Wisconsin Dairy Farm Ratio Benchmarking Tool](#)
- 🔍 [Decision Support System Program for Dairy Production and Expansion](#)
- 🔍 [Least Cost Optimizer](#)
- 🔍 [LGM-Dairy Premium Sensitivity](#)
- 🔍 [Return to Labor](#)
- 🔍 [Estimate Your Mailbox Price](#)
- 🔍 [LGM Dairy Feed Equivalent Calculator](#)
- 🔍 [Net Guarantee Income Over Feed Cost for LGM-Dairy](#)

Price Risk

- 🔍 [LGM-Dairy Premium Sensitivity](#)
- 🔍 [Least Cost Optimizer](#)
- 🔍 [LGM Premium](#)
- 🔍 [LGM Dairy Feed Equivalent Calculator](#)
- 🔍 [Milk Component Price Analysis](#)

Environment

- 🔍 [Dairy Nutrient Manager](#)
- 🔍 [Grazing-N: Application that Balances Nitrogen in Grazing Systems](#)
- 🔍 [Seasonal Prediction of Manure Excretion](#)
- 🔍 [Dynamic Dairy Farm Model](#)

Why decision support tools?

Farm specific decision-making

Assessment should be farm specific

Every farm is different

Farm conditions change dynamically

Decisions should adjust



Market conditions change permanently

Impact decisions

User-friendly applications

Easy to use, still robust

Rationale

True price of a feed

Cows need nutrients

They don't need "feeds"

Feed price \neq nutrient value

Feeds have various nutrients

True feed price

Σ nutrient values

Best deal

Feeds with lower true price

Nutrient value

Simple example

Actual

Corn: 09%CP + 2.00Mcal/kg = \$0.267/kg (89%DM)

SBM: 54%CP + 2.20Mcal/kg = \$0.587/kg (89% DM)

Then

CP: \$0.748/kg DM

Mcal: \$0.116/Mcal

True

Corn: [(9%CP)(\$0.748/kg)+(2Mcal)(\$0.116/Mcal)]*89%=\$0.267

SBM: [(54%CP)(\$0.748/kg)+(2.2Mcal)(\$0.116/Mcal)]*89%=\$0.587

Nutrient value

How about 3 nutrients?

Referee
Feeds

| | CP | NeI | NDF | | Price |
|------------|---------------|---------------|----------------|--|-------|
| | % | Mcal/kg | % | | \$/kg |
| Corn | 9 | 2 | 9 | | 0.30 |
| SBM | 54 | 2.2 | 15 | | 0.66 |
| Hay | 18 | 1.3 | 50 | | 0.13 |
| | \$/kg | \$/Mcal | \$/kg | | |
| Value (\$) | 0.7903 | 0.1306 | -0.0036 | | |

Nutrient value

Pricing another feed

| | | | | | Price |
|-------------|--------|---------|---------|--|---------------|
| | CP | Nel | NDF | | \$/kg |
| | \$/kg | \$/Mcal | \$/kg | | |
| Value (\$) | 0.7903 | 0.1306 | -0.0036 | | |
| | | | | | |
| | % | Mcal/kg | % | | |
| Corn Silage | 7% | 0.67 | 42% | | \$0.14 |

Priced
Feed

**E.g., market price of
Corn Silage**
\$0.161/kg

Overpriced!
 $0.161/0.140 = 115\%$
15% above predicted!

Nutrient value

More realistic

More nutrients or more referee feeds

Solution becomes more complicated

Different number of feeds and nutrients

Matrix becomes irregular
Always $\# \text{feeds} \geq \# \text{nutrients}$
Solution is an average of nutrient value in all feeds

Market prices are as fed

Solution should be on a dry matter (DM) basis

Not all feeds should form the price

Referee = Pricers
Others = Priced

FeedVal2012

Online tool

Calculate values

Individual nutrients

Predicts prices

Feed ingredients

Gives relative prices

Compared to market

FeedVal2012

A flexible online tool

Upload data as Excel file: No file chosen

Analyze Disregard negative Nutrient Calculated Values

Select Number of Nutrients: 6

Commands

INPUTS - Nutrients for Ingredients

| | Nutrient | | | | | |
|---|---------------------------------------|-------|-----------|---------|--------|-------|
| | RUP % | RDP % | NE13x Mcz | Lipid % | NDF % | Ca % |
| | Nutrient Calculated Value, \$/Unit DM | | | | | |
| | 0.568 | 0.083 | 0.129 | 0.089 | -0.079 | 2.806 |
| <input checked="" type="checkbox"/> Shelled Corn | 4.5 | 4.5 | 0.91 | 4.2 | 9.5 | 0.04 |
| <input checked="" type="checkbox"/> Soybean Meal 48% | 21 | 33 | 1 | 1.1 | 9.8 | 0.35 |
| <input checked="" type="checkbox"/> Soybean Meal 44% | 17.5 | 32.5 | 0.97 | 1.6 | 14.9 | 0.4 |
| <input type="checkbox"/> Soybean Meal expeller | 30 | 16 | 1.09 | 8 | 21.7 | 0.36 |
| <input checked="" type="checkbox"/> Soybeans raw | 12 | 28 | 1.25 | 19 | 19.5 | 0.32 |
| <input type="checkbox"/> Soybeans roasted | 22 | 21 | 1.24 | 19 | 22.1 | 0.26 |
| <input checked="" type="checkbox"/> Good Quality Hay | 6 | 14 | 0.6 | 2 | 40 | 1.3 |
| <input checked="" type="checkbox"/> Poor Quality Hay | 4 | 11.2 | 0.5 | 2 | 50 | 1 |
| <input checked="" type="checkbox"/> Corn Silage | 2.8 | 4.2 | 0.67 | 3.2 | 42 | 0.28 |
| <input type="checkbox"/> Earlage/Silage | 3.6 | 5.4 | 0.81 | 4.2 | 50.4 | 0.03 |
| <input checked="" type="checkbox"/> Distillers Dried Grains | 15 | 15 | 0.9 | 12 | 38.8 | 0.22 |
| <input type="checkbox"/> High-Moisture Corn | 3.6 | 5.4 | 0.95 | 4.2 | 10.3 | 0.03 |
| <input checked="" type="checkbox"/> Tallow | 0 | 0 | 2.06 | 100 | 0 | 0 |
| <input checked="" type="checkbox"/> Blood Meal | 76 | 19 | 1.06 | 1.2 | 0 | 0.3 |
| <input checked="" type="checkbox"/> Urea | 0 | 287 | 0 | 0 | 0 | 0 |
| <input type="checkbox"/> Straw | 4 | 1 | 0.45 | 0.37 | 73 | 0.31 |
| <input checked="" type="checkbox"/> Soy Hulls | 6 | 8 | 0.67 | 2.7 | 60.3 | 0.63 |

INPUTS - Price Inputs

As-Fed Basis

2013 July

| DM % | Price \$/Unit | Unit |
|------|---------------|------|
| 89 | 6.76 | bu |
| 89 | 533 | ton |
| 89 | 521 | ton |
| 92 | | ton |
| 87 | 13 | bu |
| 92 | | ton |
| 87 | 248 | ton |
| 87 | 127 | ton |
| 35 | 6 | ton |
| 60 | | ton |
| 89 | 245 | ton |
| 70 | | ton |
| 99 | 36 | cwt |
| 94 | 1175 | ton |
| 99 | 472 | ton |
| 85 | | ton |
| 89 | 185 | ton |

OUTPUTS

Calculated

| Predicted Value, \$/Unit | Actual Price as % of Predicted Value |
|--------------------------|--------------------------------------|
| 7.183 /bu | 94 |
| 496.398 /ton | 107 |
| 449.473 /ton | 116 |
| 597.168 /ton | 0 |
| 12.828 /bu | 105 |
| 569.096 /ton | 0 |
| 225.848 /ton | 109 |
| 159.066 /ton | 80 |
| 58.363 /ton | 116 |
| 138.723 /ton | 0 |
| 356.114 /ton | 69 |
| 201.614 /ton | 0 |
| 35.159 /cwt | 102 |
| 1116.71 /ton | 105 |
| 471.888 /ton | 100 |
| 55.995 /ton | 0 |
| 177.320 /ton | 104 |

Nutrient Content of Feed Ingredients

Prices of Feed Ingredients

Results

Best and worst purchase

July 2012

Overpriced
 Whole
 cottonseed
 $\$370/\$258 =$
 144% predicted

Bargain
 Wet distillers
 $\$76/\$172 =$
 44% predicted

| | RUP % | RDP % | NE13x Mcc | Lipid % | NDF % | Ca % | 2013 July | | Predicted Value, \$/Unit | Actual Price as % of Predicted Value | |
|---|---------------------------------------|-------|-----------|---------|--------|-------|-----------|---------------|--------------------------|--------------------------------------|-----|
| <input checked="" type="checkbox"/> Show Nutrients Values | Nutrient Calculated Value, \$/Unit DM | | | | | | DM % | Price \$/Unit | Unit | | |
| <input type="checkbox"/> Ingredients ↓ | 0.568 | 0.083 | 0.129 | 0.089 | -0.079 | 2.806 | | | | | |
| <input checked="" type="checkbox"/> Shelled Corn | 4.5 | 4.5 | 0.91 | 4.2 | 9.5 | 0.04 | 89 | 6.78 | bu | 7.183 /bu | 94 |
| <input checked="" type="checkbox"/> Soybean Meal 48% | 21 | 33 | 1 | 1.1 | 9.8 | 0.35 | 89 | 533 | ton | 496.398 /ton | 107 |
| <input checked="" type="checkbox"/> Soybean Meal 44% | 17.5 | 32.5 | 0.97 | 1.6 | 14.9 | 0.4 | 89 | 521 | ton | 449.473 /ton | 116 |
| <input type="checkbox"/> Soybean Meal, expeller | 30 | 16 | 1.09 | 8 | 21.7 | 0.36 | 92 | | ton | 597.168 /ton | 0 |
| <input checked="" type="checkbox"/> Soybeans, raw | 12 | 28 | 1.25 | 19 | 19.5 | 0.32 | 87 | 13.5 | bu | 12.828 /bu | 105 |
| <input type="checkbox"/> Soybeans, heated | 22 | 21 | 1.24 | 19 | 22.1 | 0.26 | 92 | | ton | 569.096 /ton | 0 |
| <input checked="" type="checkbox"/> Good Quality Hay | 6 | 14 | 0.6 | 2 | 40 | 1.3 | 87 | 246.21 | ton | 225.848 /ton | 109 |
| <input checked="" type="checkbox"/> Poor Quality Hay | 4.8 | 11.2 | 0.5 | 2 | 50 | 1 | 87 | 127.5 | ton | 159.066 /ton | 80 |
| <input checked="" type="checkbox"/> Corn Silage | 2.8 | 4.2 | 0.67 | 3.2 | 42 | 0.28 | 35 | 67.8 | ton | 58.363 /ton | 116 |
| <input type="checkbox"/> Earlage/Snaplage | 3.6 | 5.4 | 0.82 | 4.2 | 25 | 0.03 | 60 | | ton | 138.723 /ton | 0 |
| <input checked="" type="checkbox"/> Distillers Dried Grains | 15 | 15 | 0.9 | 12 | 38.8 | 0.22 | 89 | 245 | ton | 356.114 /ton | 69 |
| <input type="checkbox"/> High-Moisture Corn | 3.6 | 5.4 | 0.95 | 4.2 | 10.3 | 0.03 | 70 | | ton | 201.614 /ton | 0 |
| <input checked="" type="checkbox"/> Tallow | 0 | 0 | 2.06 | 100 | 0 | 0 | 99 | 36 | cwt | 35.159 /cwt | 102 |
| <input checked="" type="checkbox"/> Blood Meal | 76 | 19 | 1.06 | 1.2 | 0 | 0.3 | 94 | 1175 | ton | 1116.71 /ton | 105 |
| <input checked="" type="checkbox"/> Urea | 0 | 287 | 0 | 0 | 0 | 0 | 99 | 472 | ton | 471.888 /ton | 100 |
| <input type="checkbox"/> Straw | 4 | 1 | 0.45 | 0.37 | 73 | 0.31 | 85 | | ton | 55.995 /ton | 0 |
| <input checked="" type="checkbox"/> Soy Hulls | 6 | 8 | 0.67 | 2.7 | 60.3 | 0.63 | 89 | 185 | ton | 177.320 /ton | 104 |
| <input checked="" type="checkbox"/> Corn Gluten Feed | 7.5 | 16.5 | 0.79 | 3.5 | 35.5 | 0.7 | 89 | 162 | ton | 272.311 /ton | 59 |
| <input checked="" type="checkbox"/> Canola Meal, expeller | 17 | 21 | 0.8 | 5.4 | 30 | 0.75 | 89 | 362 | ton | 390.617 /ton | 93 |
| <input type="checkbox"/> Canola Meal, solvent | 13.5 | 24.5 | 0.74 | 1.5 | 29.8 | 0.75 | 89 | | ton | 340.687 /ton | 0 |
| <input checked="" type="checkbox"/> Cottonseed Meal | 20 | 25 | 0.78 | 1.9 | 30.8 | 0.2 | 89 | 390 | ton | 388.124 /ton | 100 |
| <input checked="" type="checkbox"/> Wheat Middlings | 4.5 | 14 | 0.76 | 4.3 | 36.7 | 0.16 | 89 | 190 | ton | 203.984 /ton | 91 |
| <input checked="" type="checkbox"/> Whole Cottonseed | 6 | 18 | 0.88 | 19.3 | 50.3 | 0.17 | 89 | 370 | ton | 257.820 /ton | 144 |
| <input type="checkbox"/> Hi-Pro Distillers | 22 | 22 | 0.9 | 4 | 25 | 0.22 | 89 | | ton | 443.992 /ton | 0 |
| <input checked="" type="checkbox"/> Wet Distillers | 12 | 18 | 0.92 | 15 | 38.8 | 0.22 | 45 | 76 | ton | 171.689 /ton | 44 |
| <input type="checkbox"/> Brewers Dried Grains | 15 | 15 | 0.78 | 5.2 | 47.4 | 0.3 | 89 | | ton | 309.630 /ton | 0 |
| <input type="checkbox"/> Wet Brewers | 12 | 18 | 0.78 | 5.2 | 47.1 | 0.35 | 25 | | ton | 80.516 /ton | 0 |
| <input type="checkbox"/> Malt Sprouts | 9 | 21 | 0.68 | 2.3 | 47 | 0.24 | 89 | | ton | 227.789 /ton | 0 |
| <input checked="" type="checkbox"/> Sunflower Meal | 8 | 21 | 0.63 | 1.4 | 40.3 | 0.48 | 89 | 240 | ton | 226.176 /ton | 106 |
| <input checked="" type="checkbox"/> Beet Pulp | 5 | 5 | 0.67 | 1.1 | 45.8 | 0.91 | 89 | 270 | ton | 194.628 /ton | 139 |

What's true price for

July 2012: RUP, RDP, NEI, peNDF

| Feed | DM | Unit | Price (\$/unit) | | % of |
|----------------------|----|------|-----------------|-----------|-----------|
| | | | Market | Predicted | Predicted |
| Wet distillers | 45 | ton | 76 | 184 | 41 |
| Poor Quality Hay | 87 | ton | 128 | 173 | 74 |
| Molasses | 89 | ton | 220 | 218 | 101 |
| Barley | 89 | cwt | 15 | 13 | 116 |
| Tallow | 99 | cwt | 36 | 28 | 130 |
| Brewers Dried Grains | 89 | ton | - | 354 | - |
| Whey | 20 | ton | - | 51 | - |

Video demonstration

Available at DairyMGT.info



FeedVal 2012

V.E. Cabrera, L. Armentano, R.D. Shaver
Department of Dairy Science



Acknowledgement:

This project is supported by Agriculture and Food Research Initiative Competitive Grant No. 2011-68004-30340 from the USDA National Institute of Food and Agriculture



United States Department of Agriculture
National Institute of Food and Agriculture

Supporting Documents

- [Tool overview](#)
- [By-Product Feedstuffs in Dairy Cattle Diets in the Upper Midwest](#)
- [NRC Feed Tables](#)

Upload data as Excel file:

Disregard negative Nutrient Calculated Values

Select Number of Nutrients:

| INPUTS - Nutrients for Ingredients | | | | | | | INPUTS - Price Inputs | | | OUTPUTS | |
|---|---------------------------------------|-------|--------|---------|-------|------|-----------------------|---------------|------|--------------------------|--------------------------------------|
| Ingredient | Nutrient | | | | | | As-Fed Basis | | | Calculated | |
| | RUP % | RDP % | NEI3xM | Lipid % | peNDF | Ca % | DM % | Price \$/Unit | Unit | Predicted Value, \$/Unit | Actual Price as % of Predicted Value |
| Ingredients ↓ | Nutrient Calculated Value, \$/Unit DM | | | | | | 2012 October | | | | |
| <input checked="" type="checkbox"/> Shelled Corn | 4.5 | 4.5 | 0.91 | 4.2 | 0 | 0.04 | 89 | 7.92 | bu | | |
| <input checked="" type="checkbox"/> Soybean Meal 48% | 21 | 33 | 1 | 1.1 | 0 | 0.35 | 89 | 491.2 | ton | | |
| <input checked="" type="checkbox"/> Soybean Meal 44% | 17.5 | 32.5 | 0.97 | 1.6 | 0 | 0.4 | 89 | 441.2 | ton | | |
| <input checked="" type="checkbox"/> Soybean Meal, expelle | 30 | 16 | 1.09 | 8 | 0 | 0.36 | 92 | 466.2 | ton | | |
| <input checked="" type="checkbox"/> Soybeans, raw | 12 | 28 | 1.25 | 19 | 0 | 0.32 | 87 | 543 | ton | | |
| <input checked="" type="checkbox"/> Soybeans, heated | 22 | 21 | 1.24 | 19 | 0 | 0.26 | 92 | 700 | ton | | |
| <input checked="" type="checkbox"/> Good Quality Hay | 6 | 14 | 0.6 | 2 | 35 | 1.3 | 87 | 248.666 | ton | | |

Monthly market watch

Best feed prices, ranked

Bargains and overpriced

- 27 referee feeds
- 4 nutrients:
 - RUP, RDP, NEL, peNDF
- FOB Midwest US prices

Predicted prices

- 13 feeds

FeedVal 2012 predicted dairy feed prices and rankings for July 2013¹

V.E. Cabrera, P. Hoffman, and R. Shaver

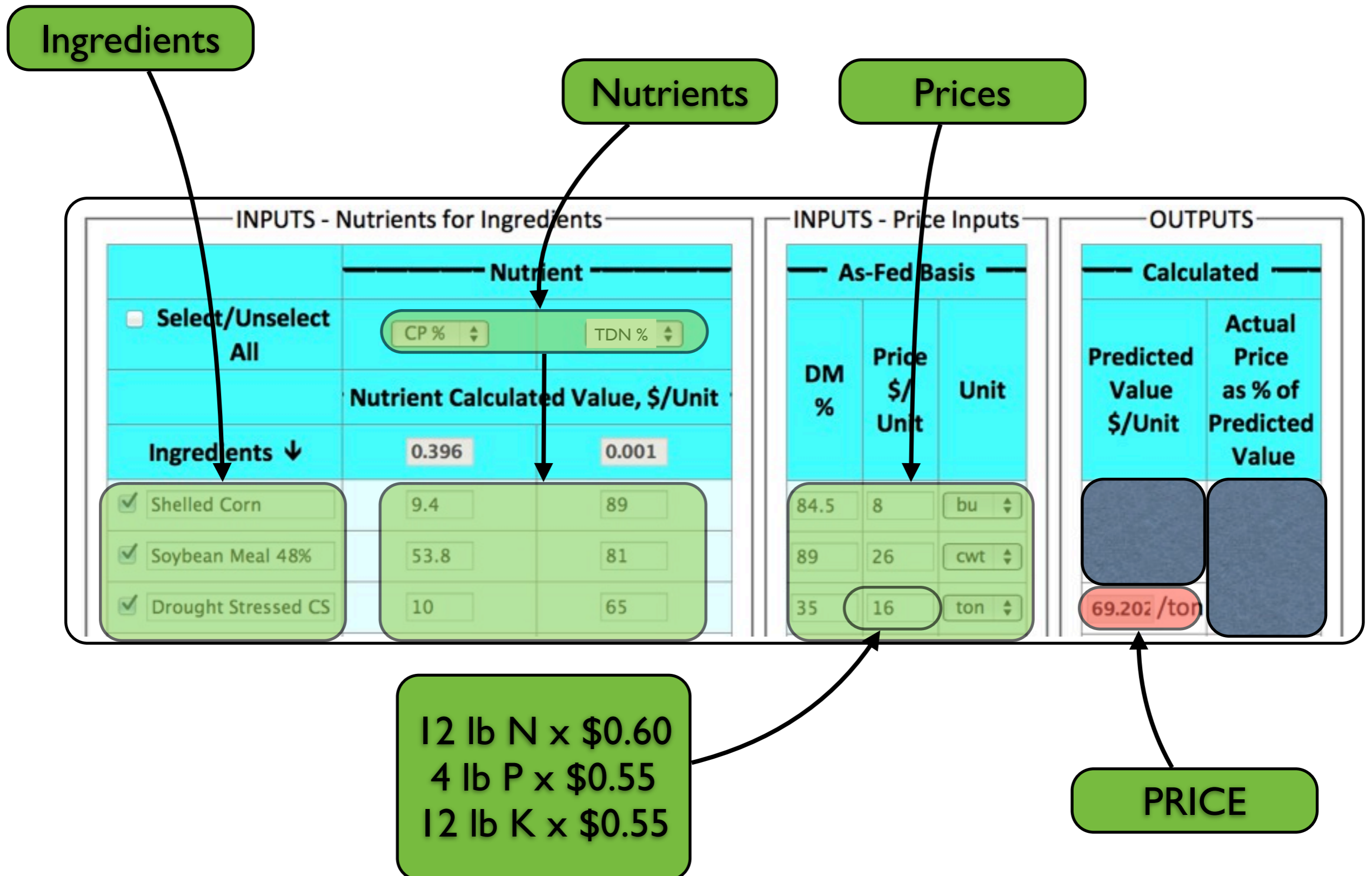
| Ingredient | DM % | Unit | Feed Prices (\$/Unit) | | Actual Price as % of Predicted Value | Best-buy Ranking |
|-------------------------|------|------|-----------------------|-----------|--------------------------------------|------------------|
| | | | Market | Predicted | | |
| Wet Distillers | 45 | ton | 76.0 | 183.9 | 41 | 1 |
| Corn Gluten Feed | 89 | ton | 162.0 | 286.7 | 57 | 2 |
| Distillers Dried Grains | 89 | ton | 245.0 | 383.4 | 64 | 3 |
| Poor Quality Hay | 87 | ton | 127.5 | 172.8 | 74 | 4 |
| Wheat Middlings | 89 | ton | 190.0 | 247.0 | 77 | 5 |
| Soy Hulls | 89 | ton | 185.0 | 231.1 | 80 | 6 |
| Hominy | 89 | ton | 220.0 | 257.8 | 85 | 7 |
| Wheat | 89 | bu | 6.6 | 7.7 | 85 | 8 |
| Corn Gluten Meal | 89 | ton | 600.0 | 698.4 | 86 | 9 |
| Corn Silage | 35 | ton | 67.8 | 75.2 | 90 | 10 |
| Shelled Corn | 89 | bu | 6.8 | 7.6 | 90 | 11 |
| Sunflower Meal | 89 | ton | 240.0 | 259.3 | 93 | 12 |
| Cottonseed Meal | 89 | ton | 390.0 | 416.8 | 94 | 13 |
| Canola Meal, expeller | 89 | ton | 362.0 | 387.0 | 94 | 14 |
| Molasses | 89 | ton | 220.0 | 218.3 | 101 | 15 |
| Urea | 99 | ton | 472.0 | 454.7 | 104 | 16 |
| Oats | 89 | ton | 263.1 | 251.3 | 105 | 17 |
| Soybeans, raw | 87 | bu | 13.5 | 12.5 | 108 | 18 |
| Soybean Meal 48% | 89 | ton | 533.0 | 491.0 | 109 | 19 |
| Blood Meal | 94 | ton | 1175.0 | 1072.4 | 110 | 20 |
| Good Quality Hay | 87 | ton | 246.2 | 213.5 | 115 | 21 |
| Soybean Meal 44% | 89 | ton | 521.0 | 449.3 | 116 | 22 |
| Barley | 89 | cwt | 14.6 | 12.6 | 116 | 23 |
| Linseed Meal | 89 | ton | 415.0 | 351.0 | 118 | 24 |
| Beet Pulp | 89 | ton | 270.0 | 217.2 | 124 | 25 |
| Whole Cottonseed | 89 | ton | 370.0 | 293.4 | 126 | 26 |
| Tallow | 99 | cwt | 36.0 | 27.7 | 130 | 27 |

| | | | | | |
|------------------------|----|-----|--|-------|--|
| Soybean Meal, expeller | 92 | ton | | 594.6 | |
| Soybeans, heated | 92 | ton | | 559.8 | |
| Earlage/Snaplage | 60 | ton | | 162.2 | |
| High-Moisture Corn | 70 | ton | | 213.9 | |
| Straw | 85 | ton | | 133.0 | |
| Canola Meal, solvent | 89 | ton | | 343.8 | |
| Hi-Pro Distillers | 89 | ton | | 460.8 | |
| Brewers Dried Grains | 89 | ton | | 354.4 | |
| Wet Brewers | 25 | ton | | 92.6 | |
| Malt Sprouts | 89 | ton | | 281.0 | |
| Wheat Bran | 89 | ton | | 230.1 | |
| Corn Stover | 80 | ton | | 105.4 | |
| Whey | 20 | ton | | 51.2 | |

¹Analysis performed using UW-Madison FeedVal 2012: http://dairymgt.info/tools/feedval_12/index.php including 27 feed ingredients displayed in top part of the table, 4 nutrients: RUP, RDP, NEL, and peNDF; and using general wholesale FOB Midwest input prices. These results might change substantially depending on: local input prices, nutrients, and feed ingredients used for price formation. For more in-depth analyses please use the FeedVal 2012 decision support tool and local input prices.

Pricing drought stressed silage

Nutrient content and field expenses



Fungicide treated alfalfa

Referee feeds and nutrients selected

Referee Feeds

Nutrients

| INPUTS - Nutrients for Ingredients | | | INPUTS - Price Inputs | | | OUTPUTS | |
|--|---------------------------------------|---------|-----------------------|---------------|------|--------------------------|--------------------------------------|
| Ingredient | Nutrient | | As-Fed Basis | | | Calculated | |
| | CP % | NE13x M | | 2012 Septemb | | | |
| | Nutrient Calculated Value, \$/Unit DM | | DM % | Price \$/Unit | Unit | Predicted Value, \$/Unit | Actual Price as % of Predicted Value |
| <input checked="" type="checkbox"/> Shelled Corn | 9 | 0.91 | 89 | 8 | bu | /bu | |
| <input checked="" type="checkbox"/> Soybean Meal 48% | 54 | 1 | 89 | 550 | ton | /ton | |
| <input checked="" type="checkbox"/> Good Quality Hay | 20 | 0.6 | 87 | 250 | ton | /ton | |
| <input checked="" type="checkbox"/> Poor Quality Hay | 16 | 0.5 | 87 | 150 | ton | /ton | |
| <input checked="" type="checkbox"/> Corn Silage | 7 | 0.67 | 35 | 60 | ton | /ton | |
| <input type="checkbox"/> Untreated | 27.87 | 0.761 | 91.76 | | ton | /ton | |
| <input type="checkbox"/> Headline | 26.42 | 0.748 | 91.95 | | ton | /ton | |
| <input type="checkbox"/> Warrior | 27.98 | 0.762 | 91.74 | | ton | /ton | |
| <input type="checkbox"/> Headline/Warrior | 28.70 | 0.771 | 91.59 | | ton | /ton | |

Priced Alfalfa Hay

Fungicide treated alfalfa

Referee feeds and nutrients selected

| INPUTS - Nutrients for Ingredients | | | INPUTS - Price Inputs | | | OUTPUTS | |
|--|-------|---------|-----------------------|---------------|------|--------------------------|--------------------------------------|
| Nutrient | | | As-Fed Basis | | | Calculated | |
| Ingredient | CP % | NEI3x N | | 2012 Septemb | | Predicted Value, \$/Unit | Actual Price as % of Predicted Value |
| Nutrient Calculated Value, \$/Unit DM | | | DM % | Price \$/Unit | Unit | | |
| Ingredients ↓ | 0.336 | 0.121 | | | | | |
| <input checked="" type="checkbox"/> Shelled Corn | 9 | 0.91 | 89 | 8 | bu | 7.013 /bu | 114 |
| <input checked="" type="checkbox"/> Soybean Meal 48% | 54 | 1 | 89 | 550 | ton | 539.257 /ton | 102 |
| <input checked="" type="checkbox"/> Good Quality Hay | 20 | 0.6 | 87 | 250 | ton | 243.727 /ton | 103 |
| <input checked="" type="checkbox"/> Poor Quality Hay | 16 | 0.5 | 87 | 150 | ton | 199.205 /ton | 75 |
| <input checked="" type="checkbox"/> Corn Silage | 7 | 0.67 | 35 | 60 | ton | 73.396 /ton | 82 |
| <input type="checkbox"/> Untreated | 27.87 | 0.761 | 91.76 | | ton | 341.489 /ton | 0 |
| <input type="checkbox"/> Headline | 26.42 | 0.748 | 91.95 | | ton | 330.328 /ton | 0 |
| <input type="checkbox"/> Warrior | 27.98 | 0.762 | 91.74 | | ton | 342.316 /ton | 0 |
| <input type="checkbox"/> Headline/Warrior | 28.70 | 0.771 | 91.59 | | ton | 348.192 /ton | 0 |

Priced Alfalfa Hay



Other FeedVal2012 applications

In Wisconsin and elsewhere

Pricing organic barley

Imported from Canada to US

Pricing feeds with no market prices

- Whey
- Straw
- Corn stover

Determine nutrient values

- CP
- NEL
- NDF



Thanks