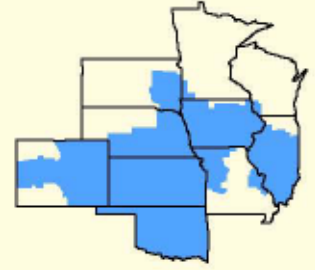


AUGUST 2013

Marketing Service

Bulletin

Facilitating the efficient marketing of milk and dairy products.



CENTRAL MARKETING AREA



Calculating a "Pay Price"

How Do I Know My "Pay Price" When Component Prices Look Like This ?

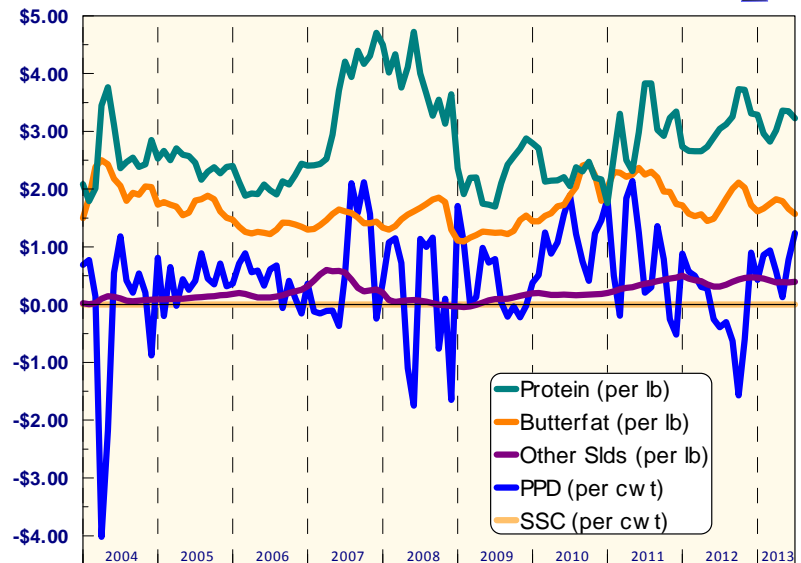
A long time ago, in a Federal Milk Order system far different from today, the calculation of each dairy farmer's monthly "pay price" was a relatively straightforward task. In the era prior to the advent of multiple

component pricing, each Federal Milk Order (FMO) announced a single producer pay price known as the Uniform Price. This price, also known as the "Blend" Price, was applicable to all producer milk with only one adjustment - the Butterfat Differential. This adjustment was applicable to each producer's per hundredweight price based upon the butterfat content of milk marketed. In this bygone era, each producer could readily make revenue comparisons by simply examining monthly Uniform Prices (adjusted for variances in butterfat content).

Congressionally-mandated FMO reforms were implemented on January 1, 2000. Consolidation and reduction of FMOs from 31 to 11 was one major feature of this reform ¹. The elimination of Uniform Prices adjusted by the Butterfat Differential was another significant change attributable to FMO reform ². Four of the post-reform FMOs continued pricing two components - skim and butterfat - and these orders continued to announce a Uniform Price. However, this price was based on a *per*

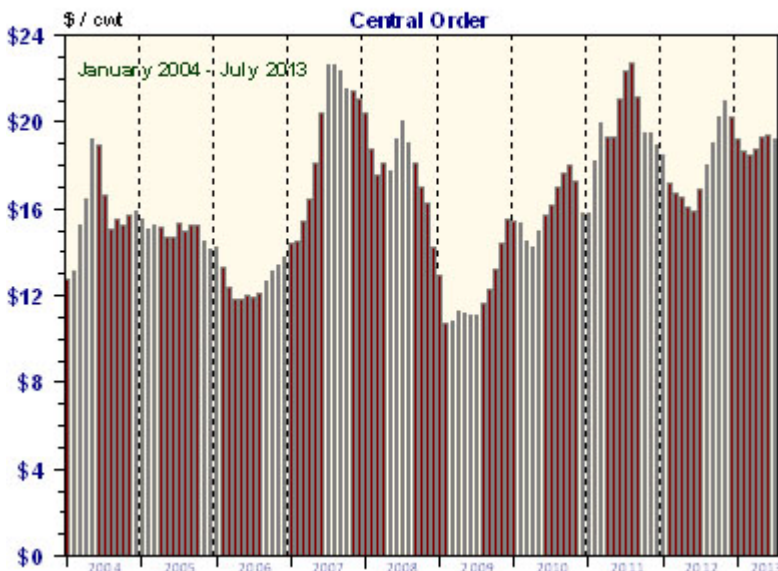
Central Order Values

January 2004 - July 2013



Effective Value of Producer Milk

@ 3.67% BF; 3.10% Protein; 5.70% OS; 330,000 SCC



hundredweight Uniform Skim Price and a *per pound* Uniform Butterfat Price, rather than a *per hundredweight* price adjusted by the Butterfat Differential. The remaining seven orders implemented a multiple component pricing system based on *per pound* prices for butterfat, protein, and other solids. These seven FMOs also included a Producer Price Differential (PPD) applied on a *per hundredweight* basis. Four of these orders also incorporated a *per hundredweight* adjustment based on the somatic cell count of producer milk.

The Central FMO is one of the four post-reform orders that implemented multiple component pricing with a somatic cell adjustment factor. Revenue calculations for Central Order producers must include all priced components to accurately reflect total revenue

¹ The number of FMOs was further reduced to 10 in April 2004 with the termination of the Western Order.

² Several orders discontinued using Uniform Prices adjusted by the Butterfat Differential prior to FMO reform.

estimations since prices for the various components often run counter to one another, as illustrated by the top graph on page 1. The bottom graph on page 1 depicts the effective pay price for a "typical" Central Order producer³ using all the component prices depicted in the top graph on page 1.

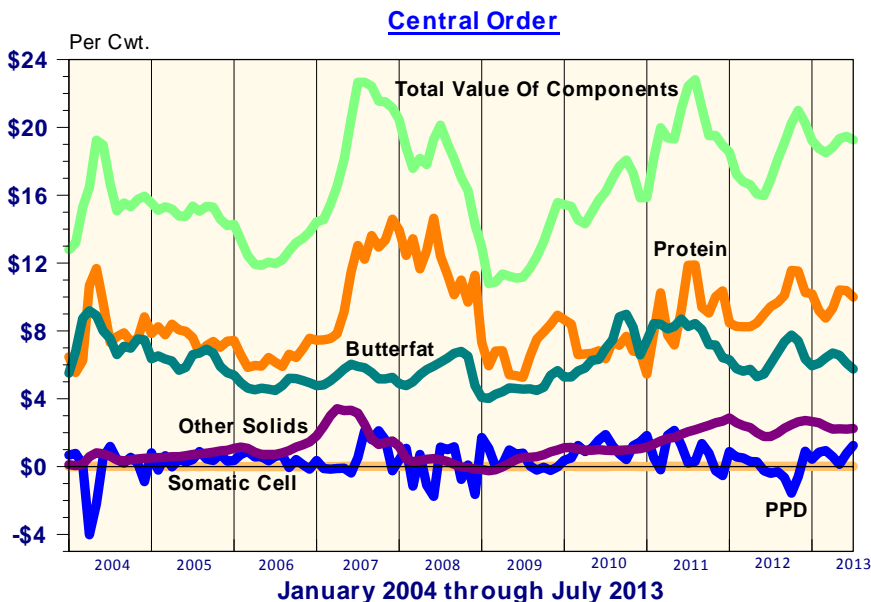
What about the PPD ??? The PPD represents, on a per hundredweight basis, total dollars accumulated by the marketwide pool minus the amount paid to producers for priced components. The value of milk used in Class I is usually the largest contributor to the PPD. Although the PPD tends to receive the most attention, it is only one part of a producer's total revenue equation. Over the past 163 months (January 2000 - July 2013), the PPD's proportion of a "typical" Central Order producer's total revenue averaged less than 4%, as indicated by the bottom graph on page 4.

The graphics and tables in this bulletin illustrate how the PPD relates to dairy producers' FMO pay price. Examining only one particular milk check component may yield inaccurate impressions. Often when the PPD declines total revenue increases due to changes in the other priced components. For example, the largest monthly decrease in the PPD was \$4.16 between March and April 2004. The corresponding change in total revenue for our "typical" producer, however, was an increase of over \$2,300. Moreover, total revenue in May 2004 reached its highest level up to that point in time, with an effective price of \$19.24. This occurred even though the PPD was -\$2.18, the second lowest level ever. Circumstances such as these make it necessary to understand how each component in a milk check is priced and how these prices relate to one another. Relationships among the FMO priced components are illustrated by the graphics and tables in this bulletin.

Central FMO Component Prices: The tables on page 5 provide historical data for Central Order producer component prices and revenue since FMO reform in January 2000. Yearly averages for components, total revenue, and the effective uniform price, are detailed in the first table, while the remaining two tables detail monthly high and low prices for these items.

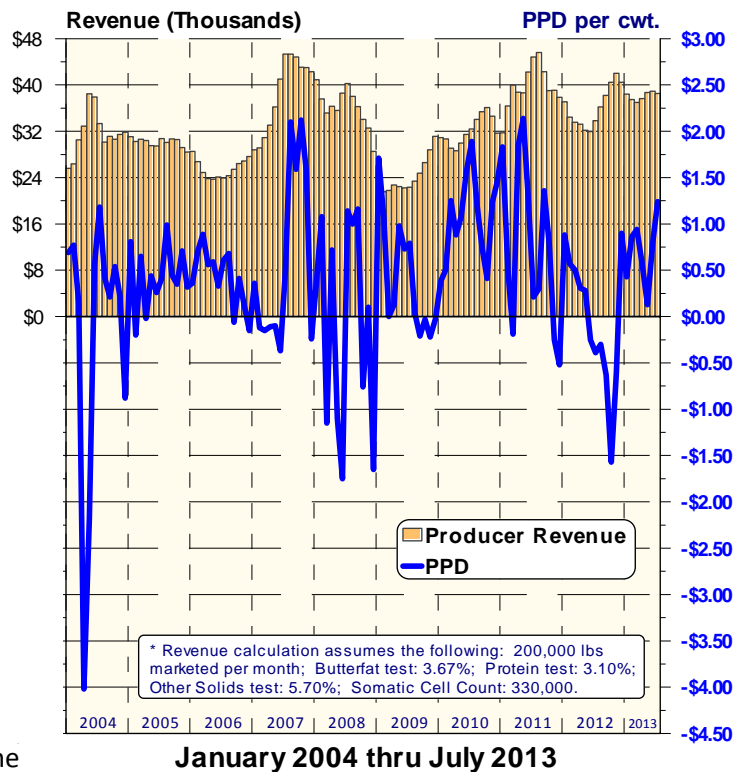
The top graph on this page details movements in the PPD versus total revenue for our "typical" producer from January 2004 through July 2013. A sample format used in calculating total producer revenue is provided below the graph on page 3.

Values in 100 lbs. Producer Milk
 @ 3.67% BF; 3.10% Protein; 5.70% OS; 330,000 SCC



Central Order Comparisons

Producer Revenue* versus the Producer Price Differential



As previously noted, changes in the PPD and total revenue are not highly correlated and often move in opposite directions. The lower graph on this page depicts the monthly value of each priced component in 100 pounds of milk.

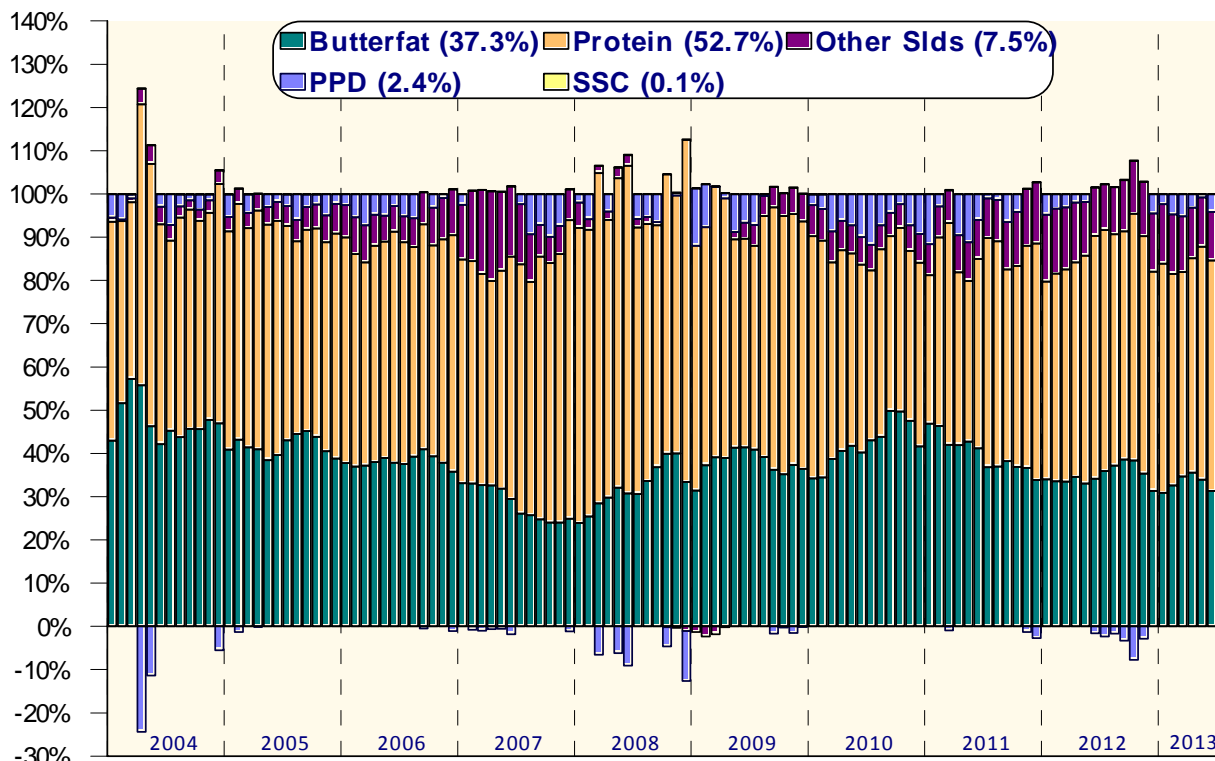
Effective yearly uniform price data is detailed by the top graph on page 4. The remaining graph on page 4 provides data regarding the proportion of total value represented by each priced component from January 2000 through July 2013. As indicated, protein (51.89%) and butterfat (38.00%) have accounted for approximately 90% of our "typical" Central order producer's total revenue since FMO reform.

³ A "typical" producer is defined as follows:
 Monthly marketings -- 200,000 pounds;
 Butterfat test -- 3.67%;
 Protein test -- 3.10%;
 Other Solids test -- 5.70%; Somatic Cell Count -- 330,000.

Values as a % of 100 Lbs. Producer Milk

@ 3.67% BF, 3.10% Protein, 5.70% OS, 330,000 SCC

Central Order



January 2004 - July 2013

Calculating Total Revenue and a Pay Price

Assume a dairy producer with :

200,000 pounds of marketings
 3.67% Butterfat test
 3.10% Protein test
 5.70% Other Solids test
 Producer Price Differential (PPD)
 330,000 Somatic Cell Count

July '13 Prices:

\$1.5693 / lb
 \$3.2257 / lb
 \$0.3927 / lb
 \$1.24 / cwt
 \$0.00086 / 100,000 cells / cwt

<u>Component</u>	<u>Average Tests</u>	<u>Hundred-Weights</u>	<u>Component Pounds Marketed</u>	<u>July '13 Component Prices</u>	<u>Total Value</u>
Butterfat	3.67	x 2,000	= 7,340	x \$1.5693	= \$11,518.66
Protein	3.10	x 2,000	= 6,200	x \$3.2257	= \$19,999.34
Other Solids	5.70	x 2,000	= 11,400	x \$0.3927	= \$ 4,476.78
PPD		2,000		x \$1.24	= \$ 2,480.00
Somatic Cell Count	330,000				

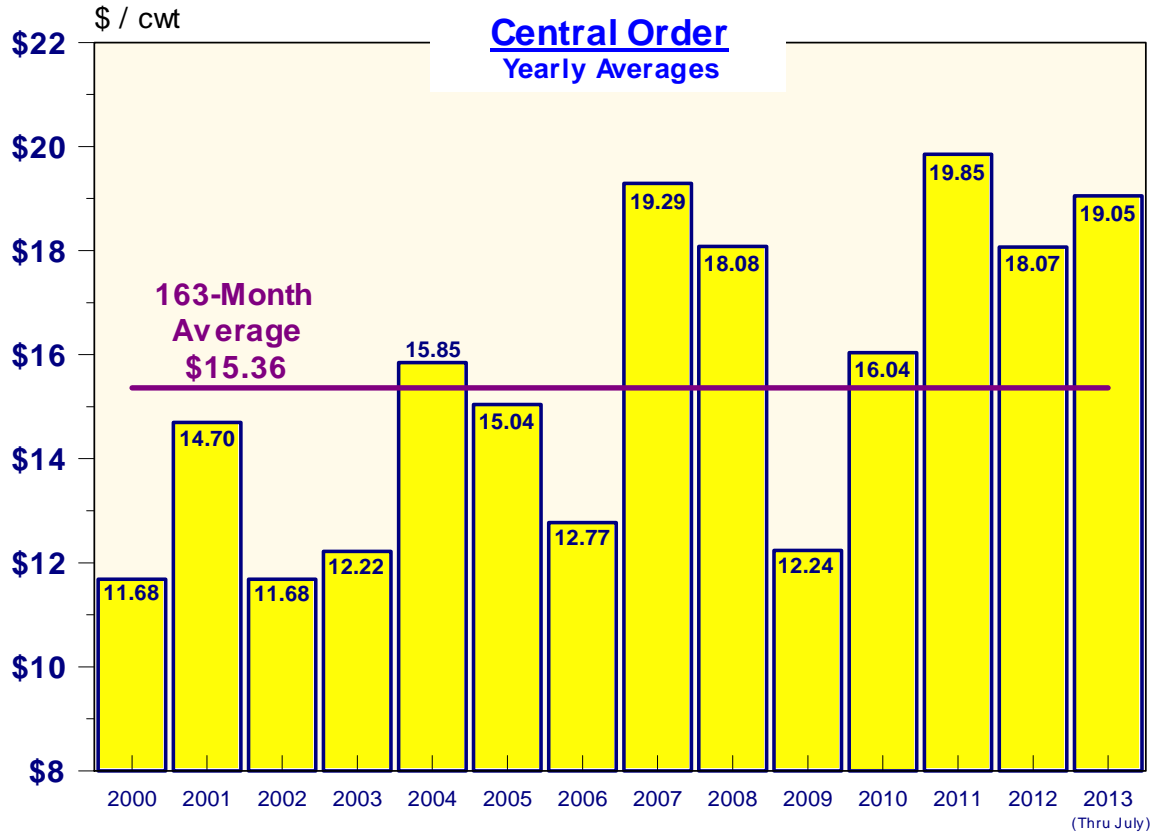
(Calculate Adjuster)					
(350-330=20)	20	x \$0.00086	= \$0.02	x 2,000	= \$40.00

Total Federal Order Value of Milk Marketed : July 2013 \$38,514.78
Effective Price Per Hundredweight \$19.26

Note: The Central order July 2013 Statistical Uniform Price was announced at \$18.62. This price is published at 3.50% Butterfat, 2.99% Protein, and 5.69% Other Solids. Individual producers should be aware their price can vary from the announced Statistical Uniform Price. In the above example, the price is 64¢ above the published price.

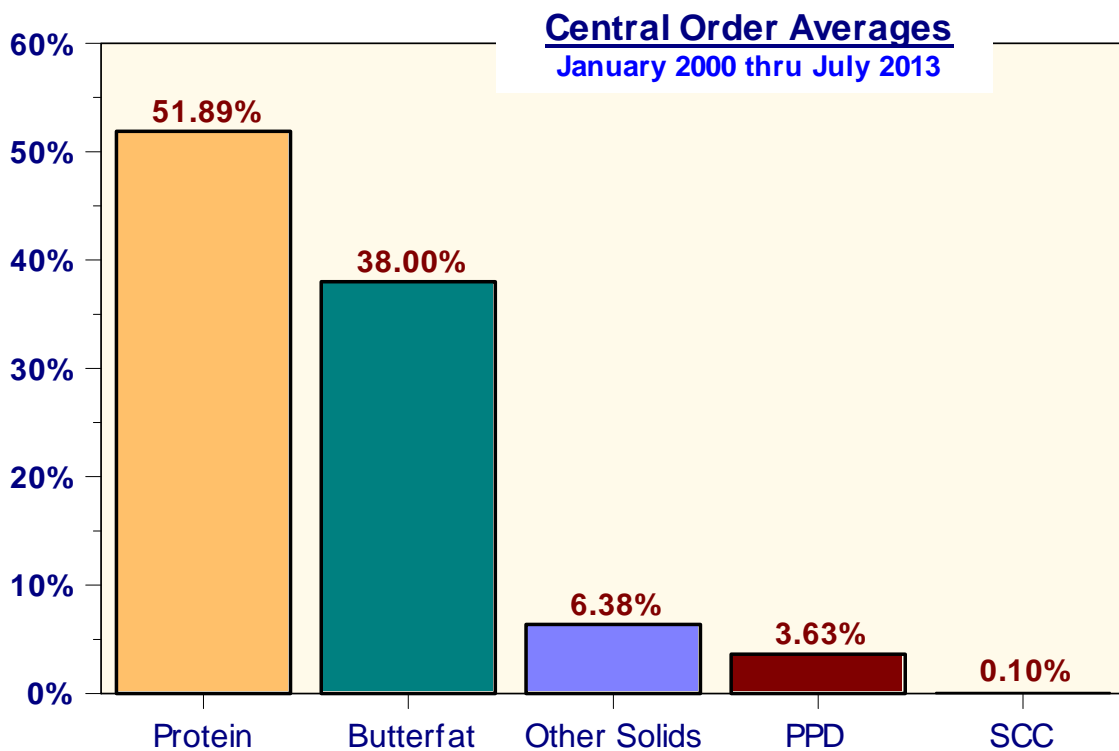
Effective Value of Producer Milk

@ 3.67% BF; 3.10% Protein; 5.70% OS; 330,000 SCC



Values as a % of 100 lbs. Producer Milk

@ 3.67% BF; 3.10% Protein; 5.70% OS; 330,000 SCC



Central Federal Milk Order Data

YEARLY AVERAGES	Butterfat Price	Protein Price	Other Solids Price	PPD	SCC Rate	Total Value *	Effective Price
2000	\$1.2522	\$1.6938	\$0.0509	\$1.53	\$0.00057	\$23,355.94	\$11.68
2001	\$1.8480	\$1.9613	\$0.1343	\$1.06	\$0.00071	\$29,409.78	\$14.70
2002	\$1.1928	\$1.9735	\$0.0593	\$0.84	\$0.00059	\$23,368.18	\$11.68
2003	\$1.2099	\$2.3770	\$0.0129	\$0.33	\$0.00065	\$24,448.13	\$12.22
2004	\$2.0510	\$2.6035	\$0.0751	\$-0.20	\$0.00082	\$31,694.06	\$15.85
2005	\$1.7105	\$2.4602	\$0.1228	\$0.42	\$0.00075	\$30,085.27	\$15.04
2006	\$1.3252	\$2.0912	\$0.1745	\$0.42	\$0.00062	\$25,542.74	\$12.77
2007	\$1.4693	\$3.5121	\$0.4201	\$0.60	\$0.00087	\$38,576.96	\$19.29
2008	\$1.5668	\$3.8898	\$0.0555	\$-0.07	\$0.00095	\$36,153.65	\$18.08
2009	\$1.2571	\$2.2087	\$0.0612	\$0.41	\$0.00065	\$24,470.65	\$12.24
2010	\$1.8535	\$2.3091	\$0.1777	\$1.05	\$0.00076	\$32,079.49	\$16.04
2011	\$2.1535	\$2.9663	\$0.3434	\$0.77	\$0.00091	\$39,694.20	\$19.85
2012	\$1.7230	\$3.0426	\$0.4063	\$-0.03	\$0.00085	\$36,132.28	\$18.07
2013 **	\$1.6952	\$3.1445	\$0.4128	\$0.71	\$0.00086	\$38,101.85	\$19.05
163-Mn Average	\$1.5903	\$2.5710	\$0.1719	\$0.56	\$0.00075	\$30,716.86	\$15.36

163-Month Highs ***

Butterfat (April '04)	\$2.5013	\$3.4465	\$0.1042	\$-4.02	\$0.00103	\$32,915.72	\$16.46
Protein (June '08)	\$1.6160	\$4.7193	\$0.0826	\$-1.75	\$0.00108	\$38,602.74	\$19.30
Other Solids (April '07)	\$1.4657	\$2.5212	\$0.6008	\$-0.11	\$0.00071	\$33,038.80	\$16.52
PPD (November '00)	\$1.5745	\$0.9149	\$0.0565	\$2.28	\$0.00051	\$22,453.31	\$11.23
SCC (June '08)	\$1.6160	\$4.7193	\$0.0826	\$-1.75	\$0.00108	\$38,602.74	\$19.30
Total Value (August '11)	\$2.2985	\$3.8305	\$0.3811	\$0.30	\$0.00107	\$45,604.63	\$22.80
Effective Price (August '11)	\$2.2985	\$3.8305	\$0.3811	\$0.30	\$0.00107	\$45,604.63	\$22.80

163-Month Lows ***

Butterfat (January '00)	\$0.9366	\$2.1677	\$0.0503	\$1.18	\$0.00058	\$23,267.80	\$11.63
Protein (November '00)	\$1.5745	\$0.9149	\$0.0565	\$2.28	\$0.00051	\$22,453.31	\$11.23
Other Solids (February '09)	\$1.0941	\$1.9139	\$-0.0437	\$1.07	\$0.00058	\$21,558.69	\$10.78
PPD (April '04)	\$2.5013	\$3.4465	\$0.1042	\$-4.02	\$0.00103	\$32,915.72	\$16.46
SCC (November '00)	\$1.5745	\$0.9149	\$0.0565	\$2.28	\$0.00051	\$22,453.31	\$11.23
Total Value (March '03)	\$1.1459	\$1.6648	\$0.0206	\$0.97	\$0.00054	\$20,927.51	\$10.46
Effective Price	\$1.1459	\$1.6648	\$0.0206	\$0.97	\$0.00054	\$20,927.51	\$10.46

* "Typical" Producer - see footnote #3 on page 2. ** Through July. *** Highlighted data represents the 163-month high/low for each category. The accompanying data for each category is applicable to the specified month in which the high/low was recorded.



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	Statistical Uniform Price		Producer Price Differential		Class I Utilization	
	<u>Jul '13</u>	<u>Jun '13</u>	<u>Jul '13</u>	<u>Jun '13</u>	<u>Jul '13</u>	<u>Jun '13</u>
Northeast	20.18	20.20	2.80	2.18	35.51	33.68
Appalachian	21.26	21.00	-----	-----	68.86	58.46
Florida	23.44	23.27	-----	-----	86.00	82.41
Southeast	21.57	21.31	-----	-----	68.05	56.24
Upper Midwest	17.78	18.32	0.40	0.30	10.05	9.45
Central	18.62	18.80	1.24	0.78	30.05	26.05
Mideast	19.12	19.22	1.74	1.20	38.10	33.43
Pacific Northwest	18.65	18.84	1.27	0.82	22.94	22.13
Southwest	19.40	19.71	2.02	1.69	33.29	31.84
Arizona	19.17	19.27	-----	-----	29.60	25.89