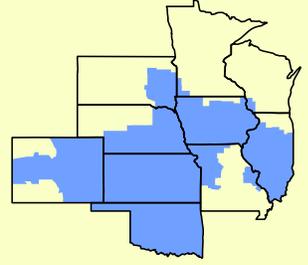


JULY 2020

Marketing Service

Bulletin

Facilitating the efficient
marketing of milk and
dairy products.



CENTRAL MARKETING AREA



Record Price Increases A Factor Behind June Negative Producer Price Differentials

In the seven Federal Milk Marketing Orders (FMMO) that pay producers based on milk components (butterfat, protein, and other solids) plus a producer price differential (PPD) value, the June PPD was significantly negative and in fact reached new lows in most of the FMMO's. This occurred when the June 2020 Class III price jumped a record \$8.90 per hundredweight from the May value.

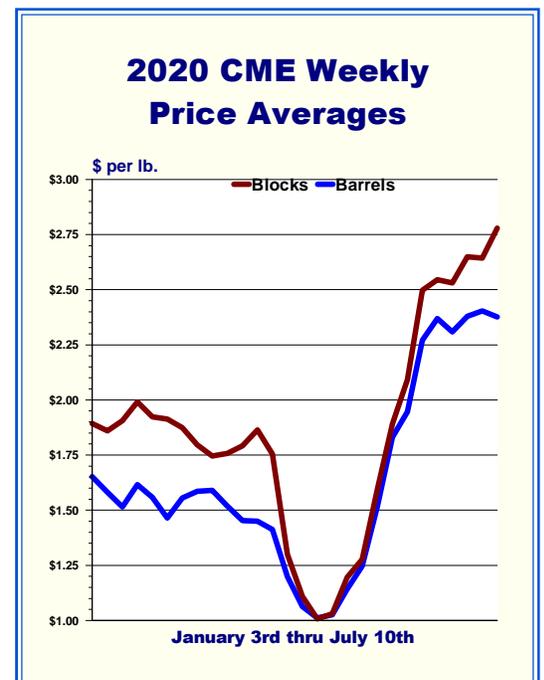
Dairy commodity markets, which are the basis for all FMMO pricing, have registered extreme swings in price levels this year, the magnitude and rapidity not previously experienced. For example, block and barrel cheese prices were relatively strong at the beginning of this year, with block prices above \$1.90 per pound during most of January, and barrel prices above \$1.50 per pound. Blocks even surpassed the \$2.00 per pound mark on a couple of days in January. Prices remained relatively strong until early April when they plunged dramatically. Both block and barrel prices fell as low as \$1.00 per pound in April, before skyrocketing in May. Blocks surpassed the \$2.00 per pound threshold in late May and have continued to climb to record levels, approaching \$3.00 during the second week of July. The graph on this page details average weekly CME prices for barrels and blocks since the beginning of this year.

The magnitude of these rapid variations in dairy commodity markets results in unusual, or "non-typical", FMMO class price alignment. Although unusual alignment of prices has occurred in the past, the magnitude of the current disparity between class prices is unprecedented. In June, the Central Order Class III price (\$21.04) was \$7.62 higher than the Class I price (\$13.42), at the base zone. The spread between the Class III price and the Class II (\$12.99) and Class IV (\$12.90) prices in June was \$8.05 and \$8.14, respectively, also unprecedented differences.

Producer Price Differential (PPD)

The PPD is a per hundredweight payment and is but one portion of the total revenue paid to dairy farmers marketing milk in a Federal Order that pay producers based on milk components. The butterfat, protein, and other solids in producer milk comprise the other portions of producer revenue, and these are paid on a per pound basis. (The Central Order Order also includes a per hundredweight price adjustment based on producer milk somatic cell count.)

The PPD represents, on a per hundredweight basis, total dollars accumulated by the market-wide pool minus the amount paid out to producers for priced components – protein, butterfat, and other solids. Market-wide pool revenue, or the **pool classified value**, is determined by the amount of milk utilized in each class, along with the price level for each class. Class I products include fluid bottled milk, Class II products are typically described as "soft" manufactured dairy products (such as ice cream, cottage cheese, dips, fluid cream products, etc.), cheeses are the products that make up Class III, while Class IV is comprised of butter and dry milk powders.



When the total value of pooled producer components exceeds the pool's classified value, the result is a negative PPD since money out of the FMMO pool at producer component values plus the PPD must equal money in the pool's classified value (pool revenue). In this measure, the calculation of a PPD can be thought of as an accounting method to "balance the books" of the monthly Federal Order pool (see illustrations below).

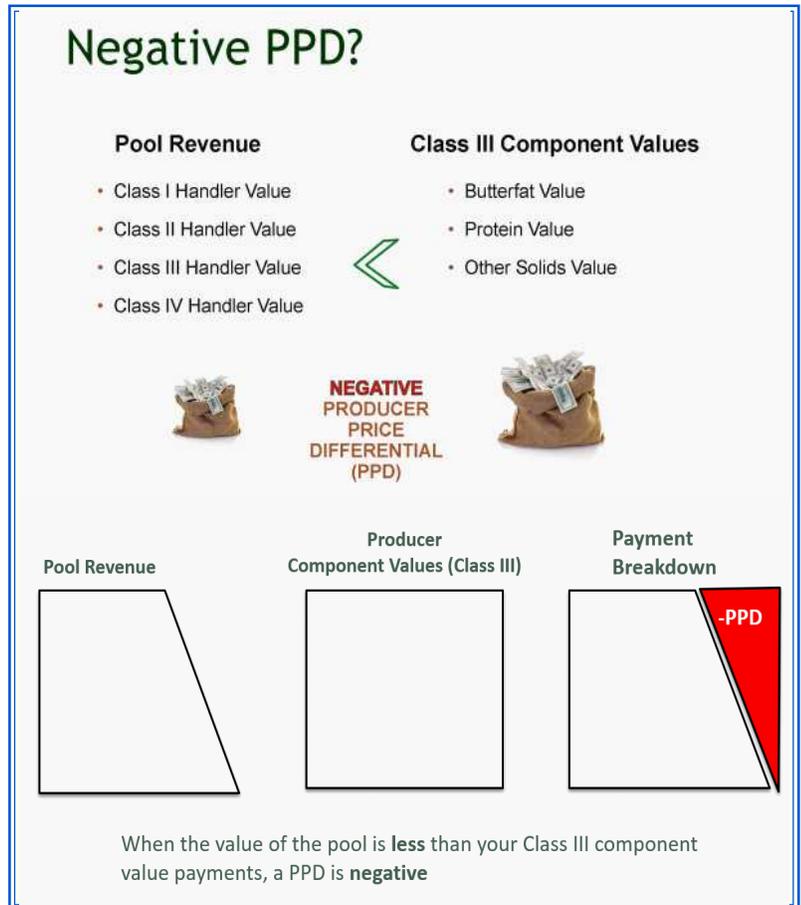
In the fat and skim pricing orders (four Federal milk orders where the largest utilization of milk is typically Class I fluid milk products) producers are paid based on the weighted average classified use value of pooled fat in the order and the weighted average classified use value of pooled skim in the order (Class fat prices times the amount of fat utilized in each class and the Class skim prices times the amount of skim utilized in each class). The total sum of the values paid to producers for pooled fat and pooled skim are equal to the classified use value of the pool and there is no PPD.

Factors Behind Negative PPD

The monthly PPD value can be positive or negative depending on several factors particular to the individual order. In some orders, negative PPD values can occur on a regular basis due to the utilization of producer milk among the four classes and the differences between the class prices. The PPD payment is adjusted by location of the plant where a producer's milk is delivered, so within a specific marketing area the per hundredweight value of the PPD can range from positive at the base zone where the price is announced and turn negative in the more distant differential zones

A significant short-term change in commodity prices used in the class and component price formulas can also have an impact on the PPD value, which is the case in June. In just over a one-month period, cheese prices recovered from among the lowest levels seen in recent years to the highest levels. Under the Federal Order system, Class I prices are announced in advanced of the effective month. The June 2020 Class I price was announced on May 20th using an average cheese price of \$1.1859 per pound from the first two weeks in May. The June 2020 Class III price was announced on July 1st based on an average cheese price of \$2.2152 per pound, calculated from four weeks in June when cheese market prices were rising. The nonfat dry milk market has not experienced the same increase as the cheese market, so Class II and IV prices have remained low as the Class II price is set off the Class IV price. These dynamics have resulted in the Class III component values, specifically the protein value, being very high relative to the other class values. Producers will notice the high value paid for protein in their June milk checks, when compared to what was paid out in their May milk checks. As explained above, the higher component prices result in more money paid out at the Class III component values than is available in the monthly Federal order pool and creates a negative PPD.

Only milk delivered to pool distributing plants is required to be producer milk under the Federal order system. Pool supply plants and deliveries to non-pool plants have specific qualifications that must be met to be eligible as producer milk. Those handlers typically have just Class II, Class III, or Class IV products and are not required to participate in the order's pool. Therefore, due to expected price relationships in some months, handlers may decide not to pool some of their milk receipts. In June 2020, handlers decided to not pool a significant volume of Class III milk due to its higher value. While that milk may not have been pooled, it is also important to note that the higher Class III value still exists in the marketplace.



It is expected that Class I, II, and IV prices will continue to be low relative to the Class III price for July 2020 resulting in a negative PPD value. It is likely that multiple component pricing orders will experience some level of negative PPD values until the Class III and IV skim prices converge.

A negative PPD does not necessarily result in diminished producer revenue. In fact, total producer revenue often increases when PPD's become negative. This is due to the relatively higher value for components, which comprise the largest portion of producer revenue.

Negative PPD's and the Central Order

Since its implementation in January 2000, the Central Order has experienced negative PPD's during 62 months, or a little over 26% of the time. The PPD's during these 26 months has averaged \$-0.70/cwt. The Central Order has recorded 182 positive PPD's since January 2000, and the PPD has average \$+0.81/cwt. during those months. (The Central Order PPD has been \$0 twice since the order was implemented.)

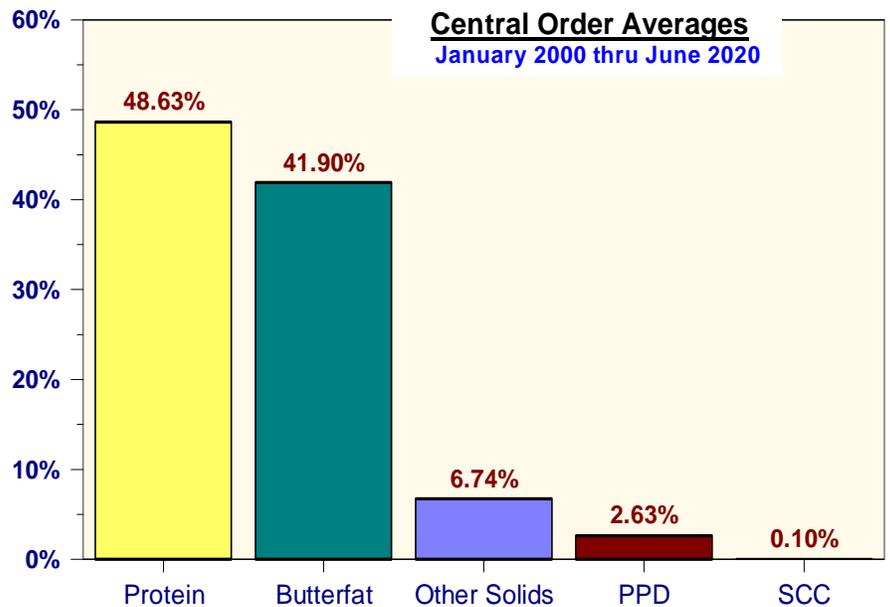
Producer revenue for a "typical producer"* on the Central Order averaged \$17.12 per hundredweight during the 26 months with negative PPD's, while the average for the 184 months with non-negative PPD's was \$15.81 per hundredweight. Thus, our typical producer's average effective pay price was \$1.31 per hundredweight greater during those months when the PPD was negative compared with the months when it was positive (or \$0).

Since the Central Order became effective in January 2000, the PPD has accounted for less than 3 percent of the total revenue for a "typical producer". The majority of revenue for Central Order producers is attributable to the components in milk marketed, specifically the pounds of protein, butterfat, and other solids. Combined revenue for these components have accounted for over 97 percent of our typical producer's revenue since January 2000. During that time frame, protein has accounted for over 48% of our typical producer's revenue, while butterfat has made up nearly 42% and other solids close to 7%. The accompanying chart details the percentage of total revenue attributable to each component for our typical producer's milk check since January 2000.

Even though negative PPD's are not a new, or recent, phenomena, the magnitude of June's negative PPD is unprecedented. For June, most multiple component pricing orders posted record large negative PPD's with the Central Order's at negative \$7.51. Prior to this, the Central Order record was a negative \$4.02 posted for April 2004. The unprecedented large disparity between the June Class III price and the other class prices, previously noted, resulted in much more money paid out for the components in producer milk pooled than revenue generated by the market-wide pool. However, the Statistical Uniform Price, which is a better barometer of total producer revenue, increased from \$12.24 during May to \$13.53 in June for the Central Order. Likewise, the effective blend price for our "typical producer" increased to \$14.36 for June, up \$1.64 from May's \$12.72. (The effective blend price is total producer revenue expressed on a per hundredweight basis.)

Values as a % of 100 lbs. Producer Milk

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



* A "typical" producer is defined as follows :
 Butterfat test at 3.67 percent;
 Protein test at 3.10 percent;
 Other Solids test at 5.70 percent;
 Somatic Cell Count at 330,000.



**United States
Department of
Agriculture**

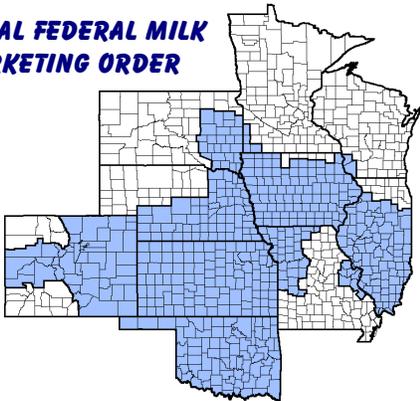
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**CENTRAL FEDERAL MILK
MARKETING ORDER**



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	Statistical Uniform Price		Producer Price Differential		Class I Utilization	
	<u>Jun '20</u>	<u>May '20</u>	<u>Jun'20</u>	<u>May '19</u>	<u>Jun '20</u>	<u>May '20</u>
Northeast	15.66	13.47	-5.38	1.33	34.84	29.75
Appalachian	15.27	15.14	---	---	83.01	68.71
Florida	16.83	17.29	---	---	84.26	81.11
Southeast	15.38	15.39	---	---	70.06	66.55
Upper Midwest	17.23	12.31	-3.81	0.17	19.49	7.93
Central	13.53	12.24	-7.51	0.10	43.06	27.31
Mideast	13.99	12.73	-7.05	0.59	40.42	31.18
California	13.13	11.95	-7.91	-0.19	24.43	22.41
Pacific Northwest	15.17	11.97	-5.87	-0.17	22.04	21.13
Southwest	13.42	13.01	-7.62	0.87	40.96	36.12
Arizona	15.50	12.38	---	---	26.23	23.54