APPALACHIAN MARKETING AREA FEDERAL ORDER 5

THE COURIER

Explanation of Producer Price Differential

July 2020

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 FMMOs. 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 to the right details average weekly CME prices for barrel and block 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.

Price Averages -Blocks -Barrels \$2.00 \$1.25 January 3rd thru July 10th

2020 CME Weekly

Although unusual alignment of prices has occurred in the past, the magnitude of the current disparity between class prices is unprecedented. In June, the Appalachian Order Class III price (\$21.04) was \$6.22 higher than the announced Class I price (\$14.82), 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

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. Some orders with multiple component pricing also include a per hundredweight price adjustment based on somatic cell levels in producer milk.



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Appalachian Statistical Summary

	JUNE 2020	MAY 2020	JUNE 2019
PRICES: (Base Zone)			
Uniform Price	\$15.27	\$15.14	\$19.44
Class I Price	14.82	16.35	20.47
Class II Price	12.99	12.30	17.30
Class III Price	21.04	12.14	16.27
Class IV Price	12.90	10.67	16.83
Uniform Skim Milk Price	\$10.03	\$10.76	\$10.58
Class I Skim Milk Price	10.48	12.12	11.79
Class II Skim Milk Price	6.69	7.73	8.26
Class III Skim Milk Price	15.06	7.59	7.22
Class IV Skim Milk Price	6.62	6.07	7.80
Uniform Butterfat Price	\$1.5962	\$1.3591	\$2.6372
Class I Butterfat Price	1.3447	1.3288	2.5974
Class II Butterfat Price	1.8661	1.3826	2.6649
Class III Butterfat Price	1.8591	1.3756	2.6579
Class IV Butterfat Price	1.8591	1.3756	2.6579
PRODUCER MILK:			
Class I	322,837,812	317,770,929	263,224,389
Class II	55,496,940	64,645,329	70,975,808
Class III	1,855,656	29,368,645	37,201,938
Class IV	8,746,932	50,676,364	46,634,978
Total Producer Milk	388,937,340	462,461,267	418,037,113
PERCENT PRODUCER MILK IN:			
Class I	83.01	68.71	62.97
Class II	14.27	13.98	16.98
Class III	0.48	6.35	8.90
Class IV	2.24	10.96	11.15

F.O. 5 STATS FOR June 2020:

The Uniform Price

for June 2020 was \$15.27 per cwt., an increase of \$0.13 from May 2020 and a decrease of \$4.17 from June 2019.

Total Class I Milk

For June 2020 was 322.8 million pounds, an increase of 59.6 million pounds compared to June 2019.

Class I Utilization

was 83.01 percent for June 2020, an increase of 20.04 percentage points from June 2019.

Total Producer Milk

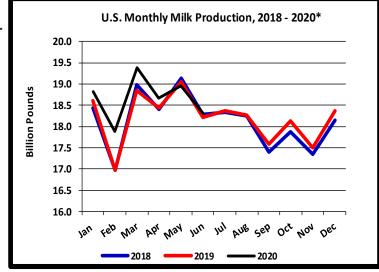
for June 2020 was 388.9 million pounds, a decrease of 29.1 million pounds compared to June 2019.

June Milk Production up 0.5 Percent

Milk production in the 24 major States during June totaled 17.4 billion pounds, up 0.5 percent from June 2019. May revised production, at 18.0 billion pounds, was down 0.5 percent from May 2019. The May revision represented an increase of 93 million pounds or 0.5 percent from last month's preliminary production estimate.

Production per cow in the 24 major States averaged 1,974 pounds for June, unchanged from June 2019.

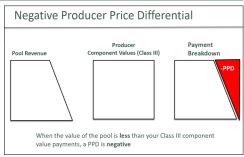
The number of milk cows on farms in the 24 major States was 8.83 million head, 43,000 head more than June 2019, but 9,000 head less than May 2020.



^{*}Based on entire U.S. production

Explanation of Producer Price Differential, cont'd

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 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

In the fat and skim pricing orders (four Federal milk orders where the largest utilization of milk is typically Class I fluid milk products – including the Appalachian, Florida, and Southeast Orders) 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 of 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.

Since the Appalachian, Florida, and Southeast Orders are markets with high Class I utilization and low Class III utilization, the June uniform prices in these orders were not significantly impacted by the increase in cheese price. The July Class I price (announced on June 17th) increased by \$5.24 from the June 2020 Class I price, so this price increase will be reflected in the July uniform prices for the Appalachian, Florida, and Southeast Orders.

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 paid on multiple component pricing 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

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Market Administrator PO Box 91528 Louisville KY 40291-0528

ADDRESS SERVICE REQUESTED

Phone: 502.499.0040 Fax: 502.499.8749

Email: friedly@malouisville.com



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Explanation of PPD, cont'd

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 market-place.

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.

Federal Milk Marketing Order Statistics - June 2020

	Federal Order	Producer Deliveries Million Pounds	Class I Producer Receipts Million Pounds	Class I Utilization Percent	Statistical Uniform Price \$/cwt
1	Northeast	1,855.6	646.5	34.9	15.66
5	Appalachian	388.9	322.8	83.0	15.27
6	Florida	190.3	160.3	84.3	16.83
7	Southeast	365.4	256.0	70.1	15.38
30	Upper Midwest	1,086.9	211.9	19.5	17.23
32	Central	833.9	359.0	43.1	13.53
33	Mideast	1,293.1	522.6	40.4	13.99
51	California	1,711.1	418.1	24.4	13.13
124	Pacific Northwest	614.4	135.4	22.0	15.17
126	Southwest	813.8	333.3	41.0	13.42
131	Arizona	375.8	98.6	26.2	15.50
	All Orders	9,529.3	3,464.6	36.4	14.74

 $^{^{1/}}$ Weighted average uniform prices at 3.5% butterfat at announced locations.

USDA — COVID-19

For the latest news from the USDA on Coronavirus Disease 2019 (COVID-19) please visit the following link for updates: <u>usda.gov/coronavirus</u>.