

# Dairy Outlook: June 2019

**Milk prices continue a slow improvement, while feed costs potentially could derail those gains. Dairy Margin Coverage program can provide some relief.**



"Summer Cows" Rob Goodling, Penn State

## Milk Price Gains with Feed Uncertain

Pennsylvania All Milk Price and the US All Milk Price for March and April were at the highest levels since November and December of 2017. Class III and Class IV futures suggest a gradual increase over the next several months. However, that good price news is tempered by the futures price of corn, driven by weather and delayed planting concerns, as well as continuing difficulties in world trade. Tight feed inventories and sub-par qualities could impair the progress dairy enterprises were hoping to see in 2019 and could impact profitability into 2020. May will be the first time the state average IOFC will be above the \$9.00/milk cow/day breakeven since December 2017.

## Dairy Margin Coverage Sign-ups Begin Soon

Dairy Margin Coverage (DMC) sign-ups will begin on June 17 and continue into September. Similar to sign-ups for the 2018 version of the Margin Protection Program, a lot of information is available prior to making a commitment. Many herd owners are able to sign up for maximum coverage knowing the expected return for the first four months of 2019 will exceed the annual fee and premiums owed.

One of the challenging decisions for those planning to sign up for DMC is whether to go year by year or sign up for a full five years of coverage and receive a 25% discount. A five-year commitment means that margin coverage cannot be altered for later years, which adds to the risk because of uncertainty in where prices will be in the coming years. There may not be a "right" or "wrong" answer on this.

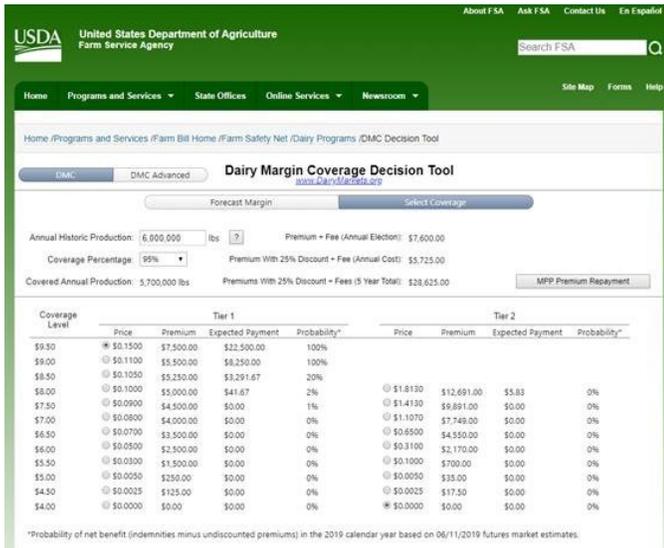
For an example, we can look at a scenario for 2019 with coverage for five million pounds of Tier 1 milk at the maximum \$9.50 margin coverage level. As shown in Figure 1, if six million pounds is the established annual production, the additional Tier 2 pounds can be covered at the \$4.00 margin level for no additional cost. **Without the 25% discount**, the total cost for this 2019 coverage will be \$7,600. The expected return for January through April, based on futures from 6/11/19, will be \$15,555. Based on current projections, the total expected net benefit for 2019, after deducting the \$100 program fee, \$7,500 premium cost, and 6.2% government sequestration, will be \$13,505.

**With the 25% discount**, full coverage for 2019 will cost \$5725, and the same for each of the four following years. This would be a 5-year commitment of \$28,625, but the knowledge that payments through April of this year will already cover more than half of that amount may be enough incentive to go for the discount.

### Figure 1: Example Dairy Margin Coverage Summary (based on 6/11/2019 futures market estimates)



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Screenshot of the Dairy Margin Coverage Decision Tool from the USDA website taken on June 12, 2019.

## Income Over Feed Cost, Margin, and All Milk Price Trends

Note for Projections: For this issue, a 5 day average (5/29/2019 thru 6/5/2019) Class III and Class IV futures were used to determine an estimated All Milk Price.

**Table 1: 12 month Pennsylvania and U.S. All Milk Income, Feed Cost, Income over Feed Cost (\$/milk cow/day)**

	PA All Milk Income	PA Feed Cost <sup>1</sup>	PA IOFC	3 yr avg. breakeven IOFC <sup>2</sup>	US All Milk Income	US Feed Cost <sup>1</sup>	US IOFC
May-18	\$ 12.53	\$ 4.49	\$ 8.03	\$ 9.00	\$ 12.15	\$ 4.62	\$ 7.53
Jun-18	\$ 12.75	\$ 4.43	\$ 8.32	\$ 9.00	\$ 12.23	\$ 4.42	\$ 7.80
Jul-18	\$ 12.15	\$ 4.45	\$ 7.70	\$ 9.00	\$ 11.55	\$ 4.33	\$ 7.22
Aug-18	\$ 12.30	\$ 4.77	\$ 7.53	\$ 9.00	\$ 11.93	\$ 4.25	\$ 7.68
Sep-18	\$ 12.83	\$ 4.57	\$ 8.26	\$ 9.00	\$ 12.53	\$ 4.28	\$ 8.25
Oct-18	\$ 13.58	\$ 4.81	\$ 8.76	\$ 9.00	\$ 13.05	\$ 4.26	\$ 8.79
Nov-18	\$ 13.50	\$ 5.03	\$ 8.47	\$ 9.00	\$ 12.75	\$ 4.20	\$ 8.55
Dec-18	\$ 13.20	\$ 5.36	\$ 7.84	\$ 9.00	\$ 12.30	\$ 4.33	\$ 7.97
Jan-19	\$ 13.28	\$ 5.50	\$ 7.78	\$ 9.00	\$ 12.45	\$ 4.35	\$ 8.10
Feb-19	\$ 13.43	\$ 4.92	\$ 8.51	\$ 9.00	\$ 12.60	\$ 4.35	\$ 8.25
Mar-19	\$ 13.88	\$ 5.33	\$ 8.55	\$ 9.00	\$ 13.13	\$ 4.41	\$ 8.72
Apr-19	\$ 13.73	\$ 5.32	\$ 8.41	\$ 9.00	\$ 13.28	\$ 4.57	\$ 8.71
May-19	\$ 14.32	\$ 5.26	\$ 9.06	\$ 9.00	\$ 13.24	\$ 4.55	\$ 8.68
Jun-19	\$ 14.40	\$ 5.27	\$ 9.13	\$ 9.00	\$ 13.26	\$ 4.56	\$ 8.70
12 mo. Avg.	\$ 13.09	\$ 4.91	\$ 8.18		\$ 12.49	\$ 4.36	\$ 8.13
12 mo. change	\$ (0.28)	\$ 0.37	\$ (0.65)		\$ (0.23)	\$ 0.40	\$ (0.62)
% change	-2.1%	8.1%	-7.4%		-1.8%	10.0%	-7.1%

<sup>1</sup>Based on corn, alfalfa hay, and soybean meal equivalents to produce 75 lbs. of milk (Bailey & Ishler, 2007)

<sup>2</sup>The 3 year average actual IOFC breakeven in Pennsylvania from 2015-2017 was \$9.00 ± \$1.67 (\$/milk cow/day) (Beck, Ishler, Goodling, 2018).

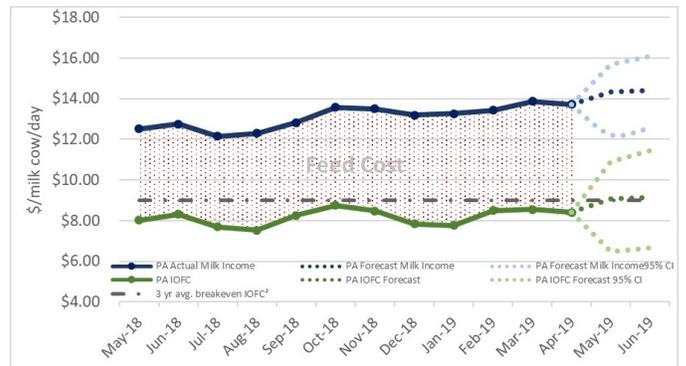
**Table 2: 12 month Pennsylvania and U.S. All Milk Price, Feed Cost, Milk Margin (\$/cwt for lactating cows)**

	PA All Milk Price	PA Feed Cost <sup>1</sup>	PA Milk Margin	3 yr avg. breakeven Milk Margin <sup>2</sup>	US All Milk Price	US Feed Cost <sup>1</sup>	US Milk Margin
May-18	\$ 16.70	\$ 5.99	\$ 10.71	\$ 12.33	\$ 16.20	\$ 6.16	\$ 10.04
Jun-18	\$ 17.00	\$ 5.90	\$ 11.10	\$ 12.33	\$ 16.30	\$ 5.90	\$ 10.40
Jul-18	\$ 16.20	\$ 5.94	\$ 10.26	\$ 12.33	\$ 15.40	\$ 5.78	\$ 9.62
Aug-18	\$ 16.40	\$ 6.36	\$ 10.04	\$ 12.33	\$ 15.90	\$ 5.66	\$ 10.24
Sep-18	\$ 17.10	\$ 6.09	\$ 11.01	\$ 12.33	\$ 16.70	\$ 5.70	\$ 11.00
Oct-18	\$ 18.10	\$ 6.42	\$ 11.68	\$ 12.33	\$ 17.40	\$ 5.67	\$ 11.73
Nov-18	\$ 18.00	\$ 6.71	\$ 11.29	\$ 12.33	\$ 17.00	\$ 5.60	\$ 11.40
Dec-18	\$ 17.60	\$ 7.14	\$ 10.46	\$ 12.33	\$ 16.40	\$ 5.77	\$ 10.63
Jan-19	\$ 17.70	\$ 7.33	\$ 10.37	\$ 12.33	\$ 16.60	\$ 5.81	\$ 10.79
Feb-19	\$ 17.90	\$ 6.56	\$ 11.34	\$ 12.33	\$ 16.80	\$ 5.80	\$ 11.00
Mar-19	\$ 18.50	\$ 7.11	\$ 11.39	\$ 12.33	\$ 17.50	\$ 5.87	\$ 11.63
Apr-19	\$ 18.30	\$ 7.09	\$ 11.21	\$ 12.33	\$ 17.70	\$ 6.09	\$ 11.61
May-19	\$ 19.10	\$ 7.02	\$ 12.08	\$ 12.33	\$ 17.65	\$ 6.07	\$ 11.58
Jun-19	\$ 19.20	\$ 7.02	\$ 12.18	\$ 12.33	\$ 17.67	\$ 6.08	\$ 11.60
12 mo. Avg.	\$ 17.46	\$ 6.55	\$ 10.91		\$ 16.66	\$ 5.82	\$ 10.84
12 mo. change	\$ (0.38)	\$ 0.49	\$ (0.87)		\$ (0.30)	\$ 0.53	\$ (0.83)
% change	-2.1%	8.1%	-7.4%		-1.8%	10.0%	-7.1%

<sup>1</sup>Based on corn, alfalfa hay, and soybean meal equivalents to produce 75 lbs. of milk (Bailey & Ishler, 2007)

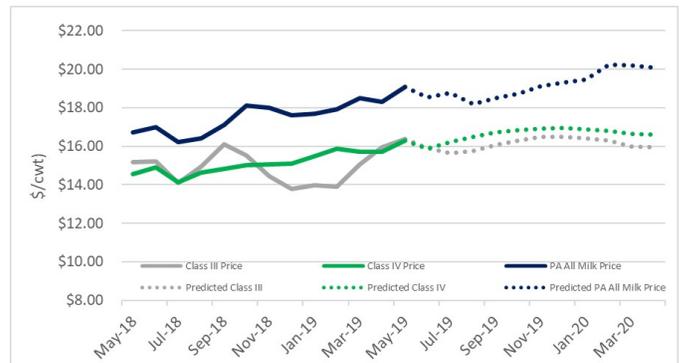
<sup>2</sup>The 3 year average actual Milk Margin breakeven in Pennsylvania from 2015-2017 was \$12.33 ± \$2.29 (\$/cwt) (Beck, Ishler, Goodling, 2018).

**Figure 2: 12 month PA Milk Income and Income over Feed Cost**



<sup>2</sup>The 3 year average actual IOFC breakeven in Pennsylvania from 2015-2017 was \$9.00 ± \$1.67 (\$/milk cow/day) (Beck, Ishler, Goodling, 2018).

**Figure 3: 24 month Actual and Predicted\* Class III, Class IV, and Pennsylvania Average Mailbox Price (\$/cwt)**



\*Predicted values based on Class III and Class IV futures regression (CME, 2019).

**Table 3: Twenty-four month Actual and Predicted\* Class III, Class IV, and Pennsylvania All Milk Price (\$/cwt)**

Month	Class III Price	Class IV Price	PA All Milk Price
May-18	\$15.18	\$14.57	\$16.70
Jun-18	\$15.21	\$14.91	\$17.00
Jul-18	\$14.10	\$14.14	\$16.20
Aug-18	\$14.95	\$14.63	\$16.40
Sep-18	\$16.09	\$14.81	\$17.10
Oct-18	\$15.53	\$15.01	\$18.10
Nov-18	\$14.44	\$15.06	\$18.00
Dec-18	\$13.78	\$15.09	\$17.60
Jan-19	\$13.96	\$15.48	\$17.70
Feb-19	\$13.89	\$15.86	\$17.90
Mar-19	\$15.04	\$15.71	\$18.50
Apr-19	\$15.96	\$15.72	\$18.30
May-19	\$16.38	\$16.29	<i>\$19.10</i>
Jun-19	<i>\$16.09</i>	<i>\$16.85</i>	<i>\$19.20</i>
Jul-19	<i>\$16.50</i>	<i>\$17.02</i>	<i>\$19.55</i>
Aug-19	<i>\$16.89</i>	<i>\$17.20</i>	<i>\$19.84</i>
Sep-19	<i>\$17.19</i>	<i>\$17.39</i>	<i>\$20.09</i>
Oct-19	<i>\$17.18</i>	<i>\$17.49</i>	<i>\$20.94</i>
Nov-19	<i>\$17.05</i>	<i>\$17.48</i>	<i>\$20.87</i>
Dec-19	<i>\$16.70</i>	<i>\$17.28</i>	<i>\$20.59</i>
Jan-20	<i>\$16.38</i>	<i>\$17.16</i>	<i>\$20.17</i>
Feb-20	<i>\$16.31</i>	<i>\$17.15</i>	<i>\$20.13</i>
Mar-20	<i>\$16.28</i>	<i>\$17.28</i>	<i>\$20.18</i>
Apr-20	<i>\$16.37</i>	<i>\$17.32</i>	<i>\$19.56</i>
May-20	<i>\$16.52</i>	<i>\$17.46</i>	<i>\$19.70</i>

*\*Italicized predicted values based on Class III and Class IV futures regression (Beck, Ishler, and Goodling 2018; CME, 2019).*

To look at feed costs and estimated income over feed costs at varying production levels by zip code, check out the Penn State Extension Dairy Team's [DairyCents](#) or [DairyCents Pro](#) apps today.

Data sources for price data

- All Milk Price: Pennsylvania and U.S. All Milk Price (USDA National Ag Statistics Service, 2019)
- Current Class III and Class IV Price (USDA Ag Marketing Services, 2019)
- Predicted Class III, Class IV Price (CME, 2019)
- Alfalfa Hay: Pennsylvania and U.S. monthly Alfalfa Hay Price (USDA National Ag Statistics Service, 2019)

- Corn Grain: Pennsylvania and U.S. monthly Corn Grain Price (USDA National Ag Statistics Service, 2019)
- Soybean Meal: Feed Price List (Ishler, 2019) and average of Decatur, Illinois Rail and Truck Soybean Meal, High Protein prices, National Feedstuffs (USDA Ag Marketing Services, 2019)

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## Authors

**Robert C. Goodling, Jr.**

Extension Associate, Dairy  
[rcg133@psu.edu](mailto:rcg133@psu.edu)  
 814-863-3663

**David L. Swartz**

Assistant Director, Animal Systems Programs  
[dls19@psu.edu](mailto:dls19@psu.edu)  
 7173855380

**Tim Beck**

Extension Educator  
tjb12@psu.edu  
717-870-7702

**Virginia A. Ishler**

Extension Dairy Specialist  
vishler@psu.edu

**Claudia Schmidt, Ph.D.**

Assistant Professor of Marketing and Local/Regional Food Systems  
cschmidt@psu.edu  
814-863-8633

**Andrew Sandeen**

Extension Educator, Dairy  
ats15@psu.edu  
724-465-3880

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