

## Jerseys vs. Holsteins: Cost Comparison Summary 2015 California Cost of Milk Production

### Mailbox Price in CDFA Report

Once more, in 2015, Jerseys excelled over Holsteins for income over feed costs per hundredweight according to data published by the California Department of Food and Agriculture (CDFA). In late May, CDFA released their annual Cost of Milk Production report. The survey compiled by the staff of the Cost of Production Unit was based on data collected from 16 Jersey and 82 Holstein herds. Herds that volunteer to participate in the analysis provide CDFA personnel with herd financial records that are subject to audit-level scrutiny to assure their accuracy. Using the herd-reported mailbox milk prices and cost data, Jerseys posted income over feed costs of \$6.48/cwt., compared to Holsteins at \$5.10/cwt., for an advantage of \$1.38/cwt.

### Revenue

2015 showed a drop in milk prices from the previous year. The mailbox prices shown in *Figure 1* are reported by the CDFA in conjunction with the cost of production summary and are based on California's regulated minimum prices plus earned premiums less marketing costs and assessments. Milk

component levels reported by the herds averaged 4.76% butterfat and 9.37% nonfat solids for Jerseys and 3.69% butterfat and 8.90% nonfat solids for Holsteins. The Jersey mailbox price of \$18.29/cwt represented a \$7.63 drop from 2014. The Holstein price of \$15.16/cwt showed a \$6.30 drop from the previous year.

As shown in *Figure 1*, the Jersey advantage for the California mailbox price is \$3.13/cwt. Cheese plant A and B represent California regulated prices plus quality

and component premiums. The cheese plant prices illustrate the importance of specific protein premiums to Jersey milk. The FMMO price represents Federal Order minimums for fat, protein and other solids plus an average producer price differential (PPD).

### Cost Categories

#### Feed Costs

Feed costs still represent the single largest cost category even though overall feed costs did decrease from 2014. For 2015 dry roughage, wet feed and concentrates costs were noticeably lower than 2014. Only minerals and supplements went up in cost. Overall feed costs for Jerseys decreased \$0.44/cwt. from 2014 while Holstein costs went down \$0.54/cwt. Jersey total feed costs ran \$1.75/cwt. more than Holstein. Total feed costs

represented 56.3% of the overall costs for Jerseys and 58.7% for Holsteins.

#### Income over Feed Costs

Also highlighted in *Figure 1* is income over feed costs. For the California mailbox price, Jerseys topped Holsteins by \$1.38/cwt. For the California cheese plants, the Jersey difference was

\$1.68/cwt for Plant A and \$1.95/cwt for Plant B. On the Federal Order Value, Jerseys surpassed Holsteins by \$1.76/cwt.

#### Hired Labor, Operating Costs & Milk Marketing

Hired labor expense for Jerseys went up three cents to \$1.98, while the Holstein cost went up 19 cents to \$1.67.

Operating costs, the broadest category, includes utilities, veterinary costs, bedding, fuel, taxes, insurance,

Figure 1 - Revenue and Income

Revenue Per CWT	Jersey	Holstein	Jersey Difference
California Mailbox	\$ 18.29	\$ 15.16	\$ 3.13
California Cheese Plant A	\$ 18.80	\$ 15.37	\$ 3.43
California Cheese Plant B	\$ 19.00	\$ 15.30	\$ 3.70
Federal Order Value	\$ 20.75	\$ 17.24	\$ 3.51
IOFC Per CWT	Jersey	Holstein	Jersey Difference
California Mailbox	\$ 6.48	\$ 5.10	\$ 1.38
California Cheese Plant A	\$ 6.99	\$ 5.31	\$ 1.68
California Cheese Plant B	\$ 7.19	\$ 5.24	\$ 1.95
Federal Order Value	\$ 8.94	\$ 7.18	\$ 1.76
Net Income Per Cow	Jersey	Holstein	Jersey Difference
California Mailbox	\$ (396.04)	\$ (345.28)	\$ (50.76)
California Cheese Plant A	\$ (412.26)	\$ (427.85)	\$ 15.58
California Cheese Plant B	\$ (372.80)	\$ (444.89)	\$ 72.09
Federal Order Value	\$ (40.85)	\$ 27.46	\$ (68.31)

2015 CA average prices: Fat \$2.2133, Overbase SNF \$0.7592, Quota SNF \$0.9533  
2015 FMMO average prices: Fat \$2.2954, Protein \$2.2393, Other Solids \$0.1867, PPD \$0.56

depreciation and other items. For Jerseys, these costs remained the same at \$3.67, while for Holsteins, these costs increased by twelve cents to \$2.83.

Hauling costs decreased in 2015. Jersey hauling costs went down three cents to \$0.41/cwt. Holstein hauling costs lowered one cent to \$0.36/cwt. While the milk marketing cost of hauling went down, for Jerseys, assessments increased from 12.9 cents/cwt. to 13.1 cents/cwt. in 2015. Holstein assessment costs increased from 13.2 cents/cwt. to 13.4 cents/cwt. in 2015.

**Herd Replacement Costs**

Of the five cost categories tracked by CDFA, replacement costs is the one most open to discussion. CDFA defines replacement costs as, “The number and value of cows entering the herd, minus the total receipts of cows culled and dead.” The effect of this accounting procedure is that herds raising their own replacement animals are ‘assessed’ the market value of those heifers when they enter the milking herd regardless of the actual costs to raise them. Demand, and therefore prices, for Jerseys are high in California. For 2015 CDFA used a value of \$2,400 for fresh Jersey heifers entering milking herds. Jersey herds that raise replacements for less than the assigned \$2,400 value have a profit center on their dairy that is not being recognized by the CDFA analysis.

In addition, last year’s decline in cull cow prices caused net replacement costs to increase due to less revenue being available from cull cows to offset the value of cows entering the milking herd.

Using CDFA’s methodology, replacement costs for Jerseys in 2015 were \$2.91/cwt., an increase of \$1.10 over 2014 and \$0.89/cwt. greater than \$2.02/cwt. for Holsteins. On a per cow basis, the Jersey costs were \$553.92, while Holstein herds averaged \$491.40 per cow.

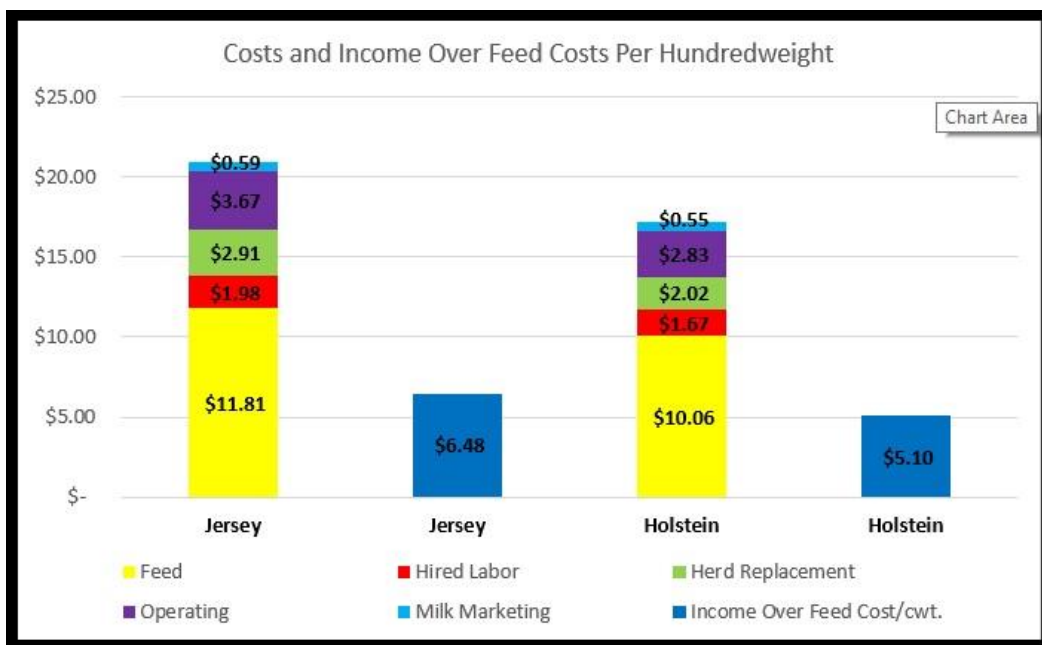
**Total Cost Comparison**

The total cost for Jerseys increased \$0.67/cwt. in 2015 to \$20.96 while the total cost for Holsteins increased \$0.50/cwt. to \$17.13.

**Summary**

The 2015 CDFA Cost of Milk Production report serves to confirm what everyone in the dairy industry experienced, last year was a very tough year for profitability. Total costs per hundredweight increased only modestly from 2014, less than \$100 per cow per year for both Jerseys and Holsteins. If not for the increase in replacement costs (\$200 per cow for Jerseys and \$175 for Holsteins), 2015 costs would have been lower than the previous year.

However, there is no escaping the fact that milk prices dropped sharply last year from 2014’s record highs and resulted in negative margins for both breeds. While cheese plant protein premiums provide significant enhancement to Jersey milk prices, those bonuses were not enough to offset the decline of over \$7.00/cwt. in the basic milk price. While Jerseys surpassed Holsteins in income over feed costs on a per hundredweight basis, when all costs were taken into account, neither breed was profitable last year. Turning again to replacement costs, NAJ believes if the CDFA methodology accounted for the actual costs of raising replacement heifers instead of assessing the herd the market price for heifers entering the milking herd, Jersey costs would be lower by approximately \$1.00/cwt. While this difference in accounting would not have made 2015 a profitable year on paper, it would give Jersey herds credit for a profit center on their dairies when replacements are valued at \$2,400 each.



<u>APR '16 STATISTICAL BLEND PRICE</u>		<u>APR '16 MONTHLY MILK VOLUME</u> (Million #)		<u>APR '16 JERSEY REGULATED BLEND PRICE</u>	
Northeast (Boston)	\$14.85	Northeast (Boston)	2,266	Northeast (Boston)	\$18.23
Appalachian (Charlotte)	\$16.01	Appalachian (Charlotte)	487	Appalachian (Charlotte)	\$18.59
Southeast (Atlanta)	\$16.34	Southeast (Atlanta)	493	Southeast (Atlanta)	\$19.03
Florida (Tampa)	\$18.32	Florida (Tampa)	232	Florida (Tampa)	\$21.25
Mideast (Cleveland)	\$14.02	Mideast (Cleveland)	1,745	Mideast (Cleveland)	\$17.20
Upper Midwest (Chicago)	\$13.78	Upper Midwest (Chicago)	3,193	Upper Midwest (Chicago)	\$17.10
Central (Kansas City)	\$13.91	Central (Kansas City)	1,391	Central (Kansas City)	\$17.33
Southwest (Dallas)	\$14.80	Southwest (Dallas)	1,256	Southwest (Dallas)	\$18.31
Arizona (Phoenix)	\$13.82	Arizona (Phoenix)	445	Arizona (Phoenix)	\$16.78
<u>Pacific Northwest (Seattle)</u>	\$13.67	<u>Pacific Northwest (Seattle)</u>	581	<u>Pacific Northwest (Seattle)</u>	\$16.85
<b>ALL FMMO MARKET AVERAGE</b>	<b>\$14.95</b>	<b>ALL FMMO MARKET TOTAL</b>	<b>12,088</b>	<b>ALL FMMO MARKET AVERAGE</b>	<b>\$18.07</b>
California 4b (Cheese Milk)	\$12.54			California 4b (Cheese Milk)	\$15.85
California Overbase	\$12.61			California Overbase	\$15.93
<i>Prices reflect Federal Order minimum blend prices for city shown.</i>		<i>Total Grade A milk volume sold under FMMO during month.</i>		<i>Prices reflect FMMO minimum prices at Jersey component values.</i>	
<u>APR '16 JERSEY BLEND WITH ESTIMATED PROTEIN OR CHEESE YIELD PREMIUMS</u>		<u>APR '16 DOLLAR DIFFERENCE: JERSEY MILK WITH PREMIUMS VS. STATISTICAL BLEND PRICE</u>		<u>APR '16 PERCENT DIFFERENCE: JERSEY MILK WITH PREMIUMS VS. STATISTICAL BLEND PRICE</u>	
Northeast (Boston)	\$18.46	Northeast (Boston)	\$3.61	Northeast (Boston)	24.3%
Appalachian (Charlotte) (includes protein prem.)	\$18.92	Appalachian (Charlotte)	\$2.91	Appalachian (Charlotte)	18.2%
Southeast (Atlanta)	\$19.03	Southeast (Atlanta)	\$2.69	Southeast (Atlanta)	16.5%
Florida (Tampa)	\$21.25	Florida (Tampa)	\$2.93	Florida (Tampa)	16.0%
Mideast (Cleveland) (includes protein premium)	\$17.78	Mideast (Cleveland)	\$3.76	Mideast (Cleveland)	26.8%
Upper Midwest (Chicago) (includes cy premium)	\$17.33	Upper Midwest (Chicago)	\$3.55	Upper Midwest (Chicago)	25.8%
Central (Kansas City)	\$17.33	Central (Kansas City)	\$3.42	Central (Kansas City)	24.6%
Southwest (Dallas)	\$18.31	Southwest (Dallas)	\$3.51	Southwest (Dallas)	23.7%
Arizona (Phoenix) (includes protein)	\$17.09	Arizona (Phoenix)	\$3.27	Arizona (Phoenix)	23.6%
<u>Pacific Northwest (Seattle)</u>	\$16.85	<u>Pacific Northwest (Seattle)</u>	\$3.18	<u>Pacific Northwest (Seattle)</u>	23.3%
<b>ALL FMMO MARKET AVERAGE</b>	<b>\$18.24</b>	<b>ALL FMMO MARKET AVERAGE</b>	<b>\$3.28</b>	<b>ALL FMMO MARKET AVERAGE</b>	<b>22.3%</b>
California 4b (Includes CY Premium)	\$17.06	California 4b (Includes CY Premium)	\$4.53	California 4b (Includes CY Premium)	36.1%
California Overbase	\$17.15	California Overbase	\$4.54	California Overbase	36.0%
<i>Includes a protein premium of \$0.05 for every 0.01% increase in protein over the market average.</i>		<i>Prices reflect difference between Jersey price with premiums, and the statistical blend price.</i>		<i>Percent difference in Jersey price with premiums, over the statistical blend price.</i>	
<u>ESTIMATED JERSEY MILK COMPOSITION</u>		<u>REGULATED MILK PRICES</u>		<u>AVERAGE JERSEY PRICE ADJUSTMENT PER CWT</u>	
	<u>Apr-16</u>		<u>Apr-16</u>		<u>Apr-16</u>
Butterfat	4.82	FMMO Milkfat	\$ 2.2376	FMMO Milkfat Adjustment	\$2.49
TRUE Protein	3.72	FMMO True Protein	\$ 1.8450	FMMO True Protein Adjustment	\$1.10
Other Solids	5.73	FMMO Other Solids	\$ 0.0489	FMMO Other Solids Adjustment	(\$0.00)
Solids Not Fat (SNF)	9.45	CA 4b (Cheese Milk) Milkfat	\$ 2.1859	CA 4b (Cheese Milk) Milkfat	\$12.55
Cheese Yield (90% Fat Recovery, 38% Moisture)	12.87	CA 4b (Cheese Milk) SNF	\$ 0.5619	CA 4b (Cheese Milk) SNF	(\$1.76)
		CA Overbase Milkfat	\$ 2.1930	CA Overbase Milkfat	\$4.91
CME Block Cheese Price	\$ 1.42	CA Overbase SNF	\$ 0.5670	CA Overbase SNF	\$1.05



# Milk & Component Outlook - 2016 Prices through April

2016 AVERAGE STATISTICAL BLEND PRICE FOR EACH FEDERAL ORDER		2016 MILK VOLUME (Million #)		2016 AVERAGE JERSEY REGULATED BLEND PRICE	
Northeast (Boston)	\$15.11	Northeast (Boston)	8,962	Northeast (Boston)	\$18.67
Appalachian (Charlotte)	\$16.33	Appalachian (Charlotte)	1,929	Appalachian (Charlotte)	\$19.06
Southeast (Atlanta)	\$16.74	Southeast (Atlanta)	1,900	Southeast (Atlanta)	\$19.61
Florida (Tampa)	\$18.55	Florida (Tampa)	957	Florida (Tampa)	\$21.70
Mideast (Cleveland)	\$14.23	Mideast (Cleveland)	6,818	Mideast (Cleveland)	\$17.71
Upper Midwest (Chicago)	\$13.89	Upper Midwest (Chicago)	12,677	Upper Midwest (Chicago)	\$17.38
Central (Kansas City)	\$14.09	Central (Kansas City)	5,429	Central (Kansas City)	\$17.61
Southwest (Dallas)	\$14.97	Southwest (Dallas)	4,919	Southwest (Dallas)	\$18.55
Arizona (Phoenix)	\$14.11	Arizona (Phoenix)	1,775	Arizona (Phoenix)	\$17.29
<u>Pacific Northwest (Seattle)</u>	<u>\$13.92</u>	<u>Pacific Northwest (Seattle)</u>	<u>2,644</u>	<u>Pacific Northwest (Seattle)</u>	<u>\$17.02</u>
<b>ALL FMMO MARKET AVERAGE</b>	<b>\$15.19</b>	<b>ALL FMMO MARKET TOTAL</b>	<b>48,009</b>	<b>ALL FMMO MARKET AVERAGE</b>	<b>\$18.46</b>
California 4b (Cheese Milk)	\$13.03			California 4b (Cheese Milk)	\$16.62
California Overbase	\$13.01			California Overbase	\$16.65

2016 AVERAGE JERSEY BLEND WITH ESTIMATED PROTEIN OR CHEESE YIELD PREMIUMS		2016 AVERAGE DOLLAR DIFFERENCE: JERSEY MILK WITH PREMIUMS VS. STATISTICAL BLEND PRICE		2016 AVERAGE PERCENT DIFFERENCE: JERSEY MILK WITH PREMIUMS VS. STATISTICAL BLEND PRICE	
Northeast (Boston)	\$18.91	Northeast (Boston)	\$3.80	Northeast (Boston)	25.1%
Appalachian (Charlotte) (includes protein prem.)	\$19.40	Appalachian (Charlotte)	\$3.07	Appalachian (Charlotte)	18.8%
Southeast (Atlanta)	\$19.61	Southeast (Atlanta)	\$2.85	Southeast (Atlanta)	17.0%
Florida (Tampa)	\$21.70	Florida (Tampa)	\$3.17	Florida (Tampa)	17.0%
Mideast (Cleveland) (includes protein premium)	\$18.32	Mideast (Cleveland)	\$4.08	Mideast (Cleveland)	28.6%
Upper Midwest (Chicago) (includes cy premium)	\$17.62	Upper Midwest (Chicago)	\$3.73	Upper Midwest (Chicago)	26.9%
Central (Kansas City)	\$17.61	Central (Kansas City)	\$3.51	Central (Kansas City)	24.9%
Southwest (Dallas)	\$18.55	Southwest (Dallas)	\$3.58	Southwest (Dallas)	23.9%
Arizona (Phoenix) (includes protein)	\$17.62	Arizona (Phoenix)	\$3.50	Arizona (Phoenix)	24.8%
<u>Pacific Northwest (Seattle)</u>	<u>\$17.02</u>	<u>Pacific Northwest (Seattle)</u>	<u>\$3.12</u>	<u>Pacific Northwest (Seattle)</u>	<u>22.5%</u>
<b>ALL FMMO MARKET AVERAGE</b>	<b>\$18.64</b>	<b>ALL FMMO MARKET AVERAGE</b>	<b>\$3.44</b>	<b>ALL FMMO MARKET AVERAGE</b>	<b>23.0%</b>
California 4b (Includes CY Premium)	\$17.91	California 4b (Includes CY Premium)	\$4.87	California 4b (Includes CY Premium)	37.4%
California Overbase	\$17.94	California Overbase	\$4.93	California Overbase	37.9%

ESTIMATED JERSEY MILK COMPOSITION		REGULATED MILK PRICES		AVERAGE JERSEY PRICE ADJUSTMENT PER CWT:	
	2016		2016		2016
Butterfat	4.90	FMMO Milkfat	\$2.2818	FMMO Milkfat Adjustment	\$2.58
TRUE Protein	3.77	FMMO True Protein	\$1.7630	FMMO True Protein Adjustment	\$1.06
Other Solids	5.73	FMMO Other Solids	\$0.0476	FMMO Other Solids Adjustment	(\$0.00)
Solids Not Fat (SNF)	9.50	CA 4b (Cheese Milk) Milkfat	\$2.2063	CA 4b (Cheese Milk) Milkfat	\$3.10
Cheese Yield (90% Fat Recovery, 38% Moisture)	13.04	CA 4b (Cheese Milk) SNF	\$0.6105	CA 4b (Cheese Milk) SNF	\$0.50
		CA Overbase Milkfat	\$2.2638	CA Overbase Milkfat	\$3.18
		CA Overbase SNF	\$0.5845	CA Overbase SNF	\$0.47

Prices reflect Federal Order minimum blend prices for city shown.

Total Grade A milk volume sold under FMMO.

Prices reflect FMMO minimum prices at Jersey component values.

Includes a protein premium of \$0.05 for every 0.01% increase in protein over the market average.

Prices reflect difference between Jersey price with premiums, and the statistical blend price.

Percent difference in Jersey price with premiums, over the statistical blend price.