U.S. Egg Cost of Production and Prices

NOVEMBER 10, 2015

Compiled by

Maro Ibarburu

Sponsored in part by:

incredible!

American Egg Board

The Egg Industry Center Market Reports & Industry Analysis are compiled in the memory of their creator, Don D. Bell, Poultry Extension Specialist Emeritus - UC Davis.

REPORT NOTE: This report estimates the average layer feed price and cost of production in six different U.S. regions as outlined on the following map. It also reports the EIC projected prices of eggs.

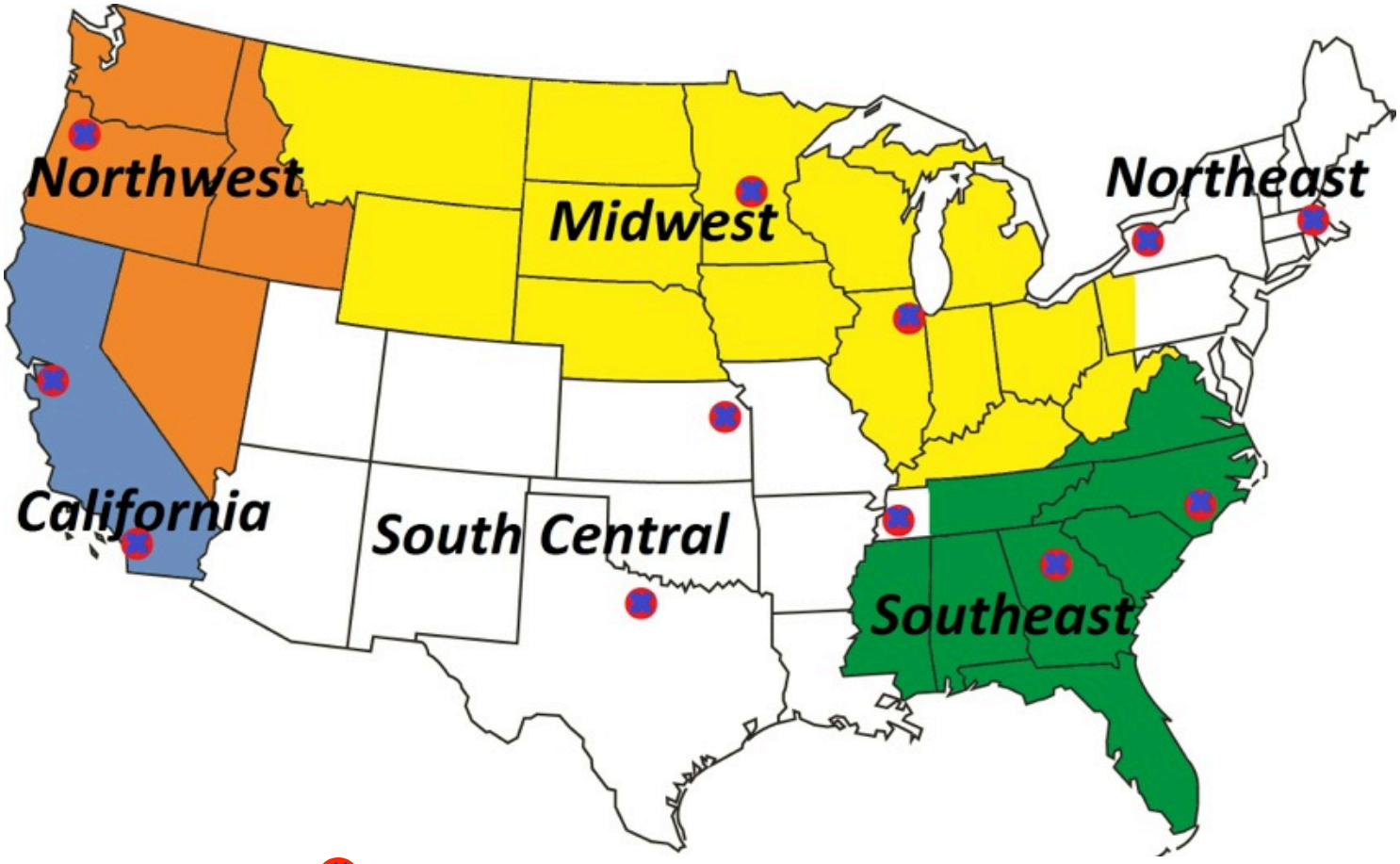
This report uses the corn and soybean meal prices reported by Feedstuffs weekly newspaper.
Monthly corn and soybean prices for each city are estimated as the simple average of the weekly prices for each month.
Monthly corn and soybean prices for each region are estimated as the simple average of prices for the cities in each region.

- The Northeast region price is the simple average of the prices for Buffalo and Boston
- The Southeast region price is the simple average of the prices for Atlanta and Fayetteville (NC)
- The Midwest region price is the simple average of the prices for Chicago and Minneapolis
- The South Central region price is the simple average of the prices for Ft. Worth, Kansas City and Memphis
- The California and Northwest region prices are the simple average of the prices for Los Angeles, San Francisco and Portland
- The U.S. price is the simple average of the prices for all the regions listed above (except California)

The average feed price is based on a diet consisting of 67% corn, 22% soybean meal, 8% limestone and 3% other ingredients.

The cost of production was adjusted from last year based on producer surveys. There is not enough information to separate costs by region other than using the differences in the feed ingredient prices.
Pullet cost are adjusted by region based on the average feed price for the month, assuming all the other costs are similar between regic
Feed conversion is variable depending on the month. The labor, building and equipment, interest and miscellaneous costs are assumed to be 17.15 (cents/dozen) for all regions (except California) and months.

Map of U.S. Regions and the location of corn and soybean meal price information used in this report



Note: The red dots with blue x's ( ) mark the cities associated with monthly corn and SBM prices.

Highlights and comparison with previous month and previous year.
Prices and Percent Changes

Difference with respect to October last year (2015 vs. 2014).

Corn Price ($/ton)		SBM Price ($/ton)		Feed Cost ($/ton)		Cost of Prod (cents/doz.)		Egg Price (cents/doz.)	
+11.27	+7.5%	-31.05	-8.0%	-1.18	-0.5%	-0.22	-0.4%	+32.61	+35.8%

In October, corn prices were $11.27/ton (7.5%) higher than in the previous year. Soybean Meal prices were $31.05/ton lower than October last year.

These changes in prices resulted in a $1.18/ton (0.5%) lower cost of feed and 0.22 cents/doz. (0.4%) lower cost of production than October last year.

The October 2015 egg price paid to producers was 32.61 cents/doz. (35.8%) higher than in October 2014.

Difference with respect to the previous month this year (October 2015 vs. September 2015).

Corn Price ($/ton)		SBM Price ($/ton)		Feed Cost ($/ton)		Cost of Prod (cents/doz.)		Egg Price (cents/doz.)	
+2.21	+1.4%	-11.53	-3.1%	-1.06	-0.5%	-0.20	-0.3%	-45.87	-27.1%

The October corn price was $2.21/ton (1.4%) higher than the previous month. Soybean Meal prices were $11.53/ton (3.1%) lower.

Changes in prices resulted in a $1.06/ton (0.5%) lower cost of feed and 0.20 cents/doz. (0.3%) lower cost of production than previous month.

The October 2015 egg price paid to producers was 45.87 cents/doz. (27.1%) lower than the previous month.

CORN PRICE BY REGION ($/ton) - 2015 **TABLE 1**

Month	Southeast	Northeast	Midwest	South Central	Northwest	5-Region avg.
Jan	221.88	153.89	133.62	146.96	196.20	170.51
Feb	207.46	148.87	132.86	145.29	190.02	164.90
Mar	210.21	147.52	132.68	149.13	189.68	165.84
Apr	207.05	149.87	133.75	146.57	186.94	164.84
May	205.02	130.02	131.38	141.51	181.92	157.97
Jun	198.53	144.91	128.11	139.94	197.86	161.87
Jul	203.75	158.89	135.67	156.10	198.97	170.68
Aug	186.00	149.31	131.54	152.92	182.45	160.44
Sep	192.86	152.74	127.41	137.20	181.91	158.42
Oct	194.38	155.46	130.18	140.95	182.19	160.63
Nov						
Dec						
10 Month Avg.	202.71	149.15	131.72	145.66	188.81	163.61
Region/US avg.	1.24	0.91	0.81	0.89	1.15	(1.00)

Source: Feedstuffs magazine

SOYBEAN MEAL PRICE BY REGION ($/ton) - 2015 **TABLE 2**

Month	Southeast	Northeast	Midwest	South Central	Northwest	5-Region avg.
Jan	495.00	409.82	386.63	387.09	434.18	422.54
Feb	418.25	389.43	420.75	383.23	403.49	403.03
Mar	445.40	393.07	356.27	357.46	398.22	390.08
Apr	423.75	398.23	331.81	335.64	374.20	372.73
May	411.75	360.63	319.80	329.24	368.26	357.93
Jun	404.90	378.00	328.20	337.61	373.84	364.51
Jul	459.25	409.25	373.25	375.65	420.02	407.48
Aug	472.20	390.70	357.00	362.53	400.93	396.67
Sep	425.00	359.75	335.35	341.98	377.81	367.98
Oct	416.50	359.75	314.25	329.65	362.10	
Nov						
Dec						
10 Month Avg.	437.20	384.86	352.33	354.01	391.31	387.00
Region/US avg.	1.13	0.99	0.91	0.91	1.01	(1.00)

Source: Feedstuffs magazine

Notes:

Northeast prices are estimated as the simple average of Buffalo and Boston
Southeast prices are estimated as the simple average of Atlanta and Fayetteville
South Central prices are estimated as the simple average of Ft. Worth, Kansas City and Memphis
Midwest prices are estimated as the simple average of Chicago and Minneapolis
Northwest and California prices are estimated as the simple average of Los Angeles, San Francisco and Portland

Note: "5-Region avg" is the simple average of the NE, SE, SC, MW, and NW regions.

ESTIMATED LAYER FEED COST BY REGION ($/ton) - 2015 **TABLE 3**

Month	Southeast	Northeast	Midwest	South Central	Northwest	5-Region avg.
Jan	285.66	221.37	202.68	211.72	255.08	235.30
Feb	259.11	213.52	209.68	209.76	244.18	227.25
Mar	266.93	213.41	195.37	206.66	242.79	225.03
Apr	260.05	216.12	190.71	200.14	235.67	220.54
May	256.05	194.55	186.48	195.35	231.00	212.69
Jun	250.19	208.35	186.14	196.13	242.91	216.74
Jul	265.65	224.59	201.11	215.33	253.82	232.10
Aug	256.60	214.09	194.77	210.31	238.54	222.86
Sep	250.81	209.58	187.24	195.26	233.10	215.20
Oct	249.96	211.40	184.45	195.06	229.83	214.14
Nov						
Dec						
10 Month Avg.	260.10	212.70	193.86	203.57	240.69	222.19
Region/US avg.	1.17	0.96	0.87	0.92	1.08	(1.00)

Source: Egg Industry Center. Estimated based on corn and soybean meal prices reported by Feedstuffs magazine and all other costs total $28.1/ton.

Assumptions:

	Diet Composition				Transport
	Corn	SBM	Calcium*	Other ingredients*	and Milling
Percent	67%	22%	8%	3%	Costs*
$/Ton	variable	variable	4.6	12.6	10.9

* These are standardized costs

ESTIMATED 19-WEEK PULLET COSTS BY REGION ($/bird) - 2015 **TABLE 4**

Month	Southeast	Northeast	Midwest	South Central	Northwest	5-Region avg.
Jan	4.29	3.81	3.67	3.74	4.06	3.92
Feb	4.09	3.75	3.73	3.73	3.98	3.86
Mar	4.15	3.75	3.62	3.70	3.97	3.84
Apr	4.10	3.77	3.59	3.66	3.92	3.81
May	4.07	3.61	3.55	3.62	3.88	3.75
Jun	4.03	3.72	3.55	3.63	3.97	3.78
Jul	4.14	3.84	3.66	3.77	4.05	3.89
Aug	4.07	3.76	3.62	3.73	3.94	3.82
Sep	4.03	3.73	3.56	3.62	3.90	3.77
Oct	4.02	3.74	3.54	3.62	3.88	3.76
Nov						
Dec						
10 Month Avg.	4.10	3.75	3.61	3.68	3.96	3.82
Region/US avg.	1.07	0.98	0.94	0.96	1.04	(1.00)

Source: Egg Industry Center

Assumes: 13.9 pounds of feed consumed per pullet at variable prices to grow a pullet to 19 weeks of age (for all regions), pullet feed cost 7% more expensive than layers cost (because of higher nutrient requirements); chick cost = 77 cents/baby chick, moving cost = 16 cents/pullet, and other costs = 124 cents/pullet (for all regions)

Note: "5-Region avg" is the simple average of the NE, SE, SC, MW, and NW regions.

ESTIMATED PULLET COST BY REGION under 2-cycle systems (Cents/doz.) - 2015 **TABLE 5**

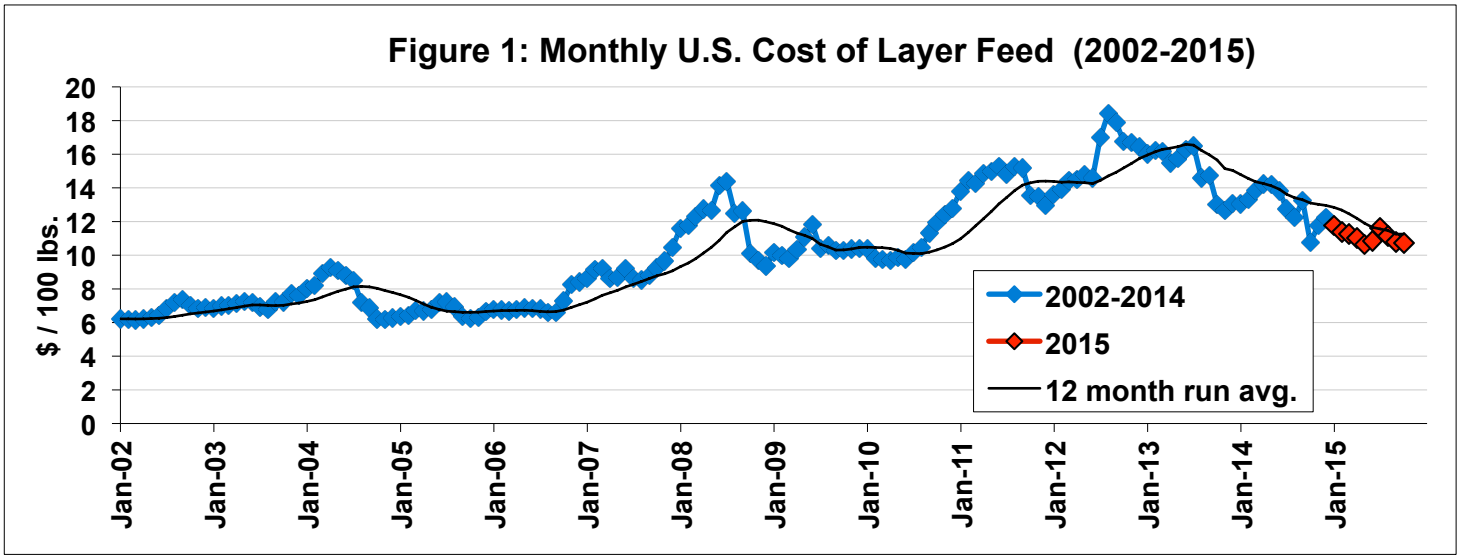
Month	Southeast	Northeast	Midwest	South Central	Northwest	5-Region avg.
Jan	9.64	8.57	8.26	8.41	9.13	8.80
Feb	9.20	8.44	8.37	8.37	8.95	8.67
Mar	9.33	8.44	8.13	8.32	8.93	8.63
Apr	9.21	8.48	8.06	8.21	8.81	8.55
May	9.15	8.12	7.99	8.13	8.73	8.42
Jun	9.05	8.35	7.98	8.15	8.93	8.49
Jul	9.31	8.62	8.23	8.47	9.11	8.75
Aug	9.16	8.45	8.12	8.38	8.85	8.59
Sep	9.06	8.37	8.00	8.13	8.76	8.46
Oct	9.04	8.40	7.95	8.13	8.71	8.45
Nov						
Dec						
10 Month Avg.	9.21	8.42	8.11	8.27	8.89	8.58
Region/US avg.	1.07	0.98	0.94	0.96	1.04	(1.00)

Source: Egg Industry Center Assumes 44.5 dozen eggs per pullet placed under 2-cycle systems

ESTIMATED FEED COST BY REGION under 2-cycle systems (Cents/doz.) - 2015 **TABLE 6**

Month	Southeast	Northeast	Midwest	South Central	Northwest	5-Region avg.
Jan	47.99	37.19	34.05	35.57	42.85	39.53
Feb	43.53	35.87	35.23	35.24	41.02	38.18
Mar	44.84	35.85	32.82	34.72	40.79	37.81
Apr	43.69	36.31	32.04	33.62	39.59	37.05
May	43.02	32.68	31.33	32.82	38.81	35.73
Jun	42.03	35.00	31.27	32.95	40.81	36.41
Jul	44.63	37.73	33.79	36.17	42.64	38.99
Aug	43.11	35.97	32.72	35.33	40.08	37.44
Sep	42.14	35.21	31.46	32.80	39.16	36.15
Oct	41.99	35.52	30.99	32.77	38.61	35.98
Nov						
Dec						
10 Month Avg.	43.70	35.73	32.57	34.20	40.44	37.33
Region/US avg.	1.17	0.96	0.87	0.92	1.08	(1.00)

Estimated based on feed costs ($/ton) shown in table 3, assuming 3.36 lbs of feed/dozen eggs



Note: "5-Region avg" is the simple average of the NE, SE, SC, MW, and NW regions.

ESTIMATED TOTAL COSTS BY REGION (cents/doz.) - 2015 * **TABLE 7**

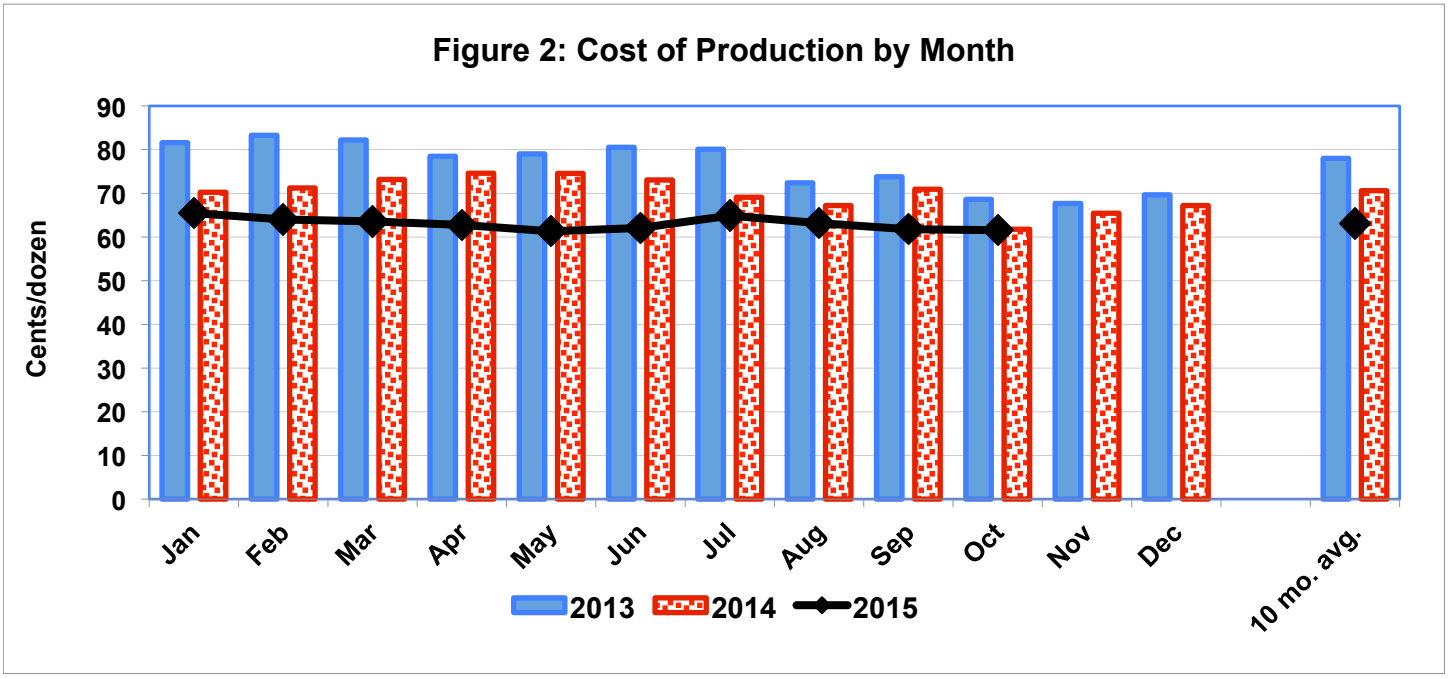
Month	Southeast	Northeast	Midwest	South Central	Northwest	California	of 5 Regions
Jan	74.78	62.91	59.46	61.13	69.13	81.68	65.48
Feb	69.88	61.46	60.75	60.76	67.12	79.66	63.99
Mar	71.32	61.44	58.11	60.19	66.86	79.41	63.58
Apr	70.05	61.94	57.25	58.99	65.55	78.09	62.75
May	69.31	57.95	56.47	58.10	64.69	77.23	61.30
Jun	68.23	60.50	56.40	58.25	66.89	79.43	62.05
Jul	71.08	63.50	59.17	61.79	68.90	81.44	64.89
Aug	69.41	61.56	58.00	60.87	66.08	78.62	63.18
Sep	68.35	60.73	56.61	58.09	65.07	77.62	61.77
Oct	68.19	61.07	56.09	58.05	64.47	77.01	61.57
Nov							
Dec							
10 Month Avg.	70.06	61.31	57.83	59.62	66.48	79.02	63.06
Region/US avg.	1.11	0.97	0.92	0.95	1.05	1.25	(1.00)

Source: Egg Industry Center.

* These estimations are based on feed costs (cents/dozen) shown in table 6, pullet costs (cents/dozen) shown in table 5.
Building and equipment, labor, interest and miscellaneous costs are assumed to be 17.15 cents/dozen (except for CA, please see below)
Some assumptions were made in the absence of enough information of cost of production under the new California regulations.
These assumptions that are a clear simplification of the changes in different costs are:

1) the feed efficiency and pullet cost are similar between California and the rest of the country
2) the "building and equipment, labor, interest and miscellaneous" costs are assumed to increase proportionally to the space per layer increase or 73% higher (116 in^2/67 in^2) than on the other regions which put them at at 29.69 cents/dozen (17.15 * 116/67)

These estimations are based on standard costs for conventionally produced eggs. Higher labor costs might exist in certain regions. Newer, more efficient farms, would probably use less labor but have higher equipment costs.



Note: "5-Region avg" is the simple average of the NE, SE, SC, MW, and NE regions. California is not considered for the average because of the different production requirements.

U.S. ESTIMATED FARM EGG PRICE AND RETAIL EGG PRICE (cents/Doz) **TABLE 8**

month	Farm Price for All White Egg Sizes (cents/Doz)				Retail Price for Large White Eggs (cents/Doz)			
	2013	2014	2015	Change	2013	2014	2015	Change
Jan	92.3	91.2	88.2	-3.0	193.3	200.8	211.3	10.5
Feb	80.1	111.3	106.0	-5.3	196.5	199.8	208.8	9.0
Mar	93.5	110.9	124.1	13.1	192.5	206.1	213.3	7.2
Apr	67.7	111.0	80.4	-30.6	191.8	211.9	206.5	-5.4
May	83.9	92.6	128.4	35.7	187.0	199.6	196.2	-3.4
Jun	66.0	85.9	172.1	86.2	185.9	194.8	257.0	62.2
Jul	76.6	95.2	175.2	80.0	183.3	195.0	257.0	62.0
Aug	82.2	85.0	204.5	119.5	183.8	197.9	294.3	96.4
Sep	79.9	84.8	169.5	84.8	189.7	197.0	296.6	99.6
Oct	83.3	91.0	123.6	32.6	192.5	195.1		
Nov	109.3	124.0			192.5	203.2		
Dec	115.1	146.7			202.6	221.0		
Avg.	80.5	95.9	137.2	41.3	189.3	200.3	237.9	37.6
12 Month Avg.	85.8	102.5			191.0	201.9		

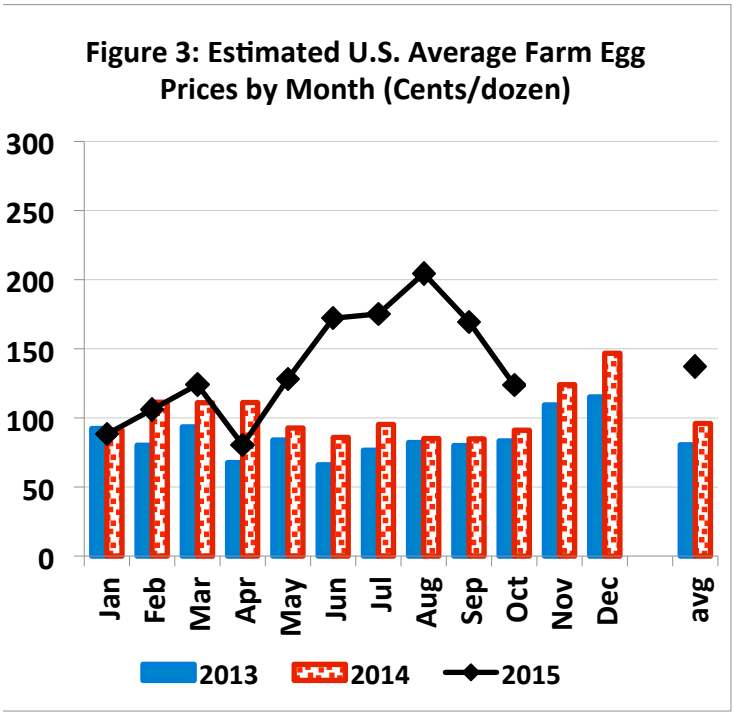
Source: Estimated using Urner Barry's price quotations by regions

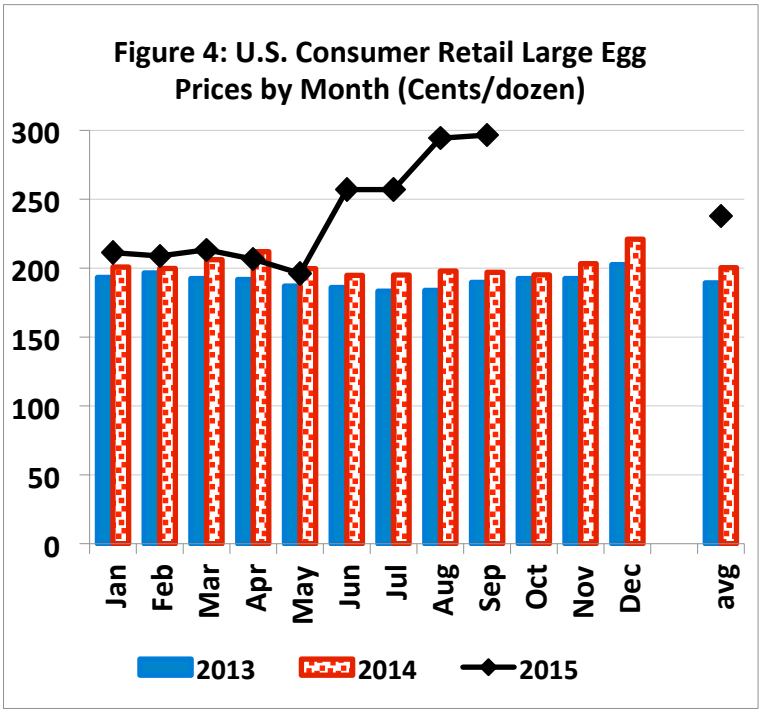
Source: Bureau of Labor Statistics (Dept. of Commerce)

For this report, the price paid to producers for large- and medium-size eggs is estimated by subtracting an "adjustment factor" from Urner Barry quotations of prices by region. The "adjustment factor" we are using varies around 40 cents/dozen and it is estimated by comparing the relationship between the Urner Barry prices with the Trailer Load prices reported by USDA.

The Undergrades eggs price is estimated as 35% of the Large eggs price (Large*0.35)
The average price of all eggs is estimated based on the proportions of Large, Medium, Small and Undergrades eggs.
These proportions change each month.

Adjustment figures between Urner Barry quotes and producer prices are subject to change monthly and between regions and companies.





ESTIMATED TOTAL COSTS UNDER 1-cycle AND 2-cycle SYSTEMS (Cents/doz.) - 2015 **TABLE 9**

month	Feed (cents/dozen) *		Pullets (cents/dozen) **		TOTAL Cost (cents/dozen)		Farm Profit (cents/dozen)	
	1-cycle	2-cycle	1-cycle	2-cycle	1-cycle	2-cycle	1-cycle	2-cycle
Jan	36.59	39.53	11.29	8.80	65.02	65.48	23.17	22.71
Feb	35.34	38.18	11.11	8.67	63.60	63.99	42.44	42.04
Mar	34.99	37.81	11.07	8.63	63.21	63.58	60.86	60.49
Apr	34.29	37.05	10.97	8.55	62.41	62.75	17.99	17.65
May	33.07	35.73	10.80	8.42	61.02	61.30	67.33	67.05
Jun	33.70	36.41	10.89	8.49	61.74	62.05	110.36	110.05
Jul	36.09	38.99	11.22	8.75	64.46	64.89	110.77	110.34
Aug	34.66	37.44	11.02	8.59	62.82	63.18	141.68	141.33
Sep	33.46	36.15	10.86	8.46	61.47	61.77	108.04	107.75
Oct	33.30	35.98	10.83	8.45	61.28	61.57	62.36	62.07
Nov								
Dec								
10 Month Avg.	**34.55**	**37.33**	**11.00**	**8.58**	**62.70**	**63.06**	**74.50**	**74.15**

Source: Egg Industry Center, based on Feedstuffs magazine published prices of corn and soybean meal

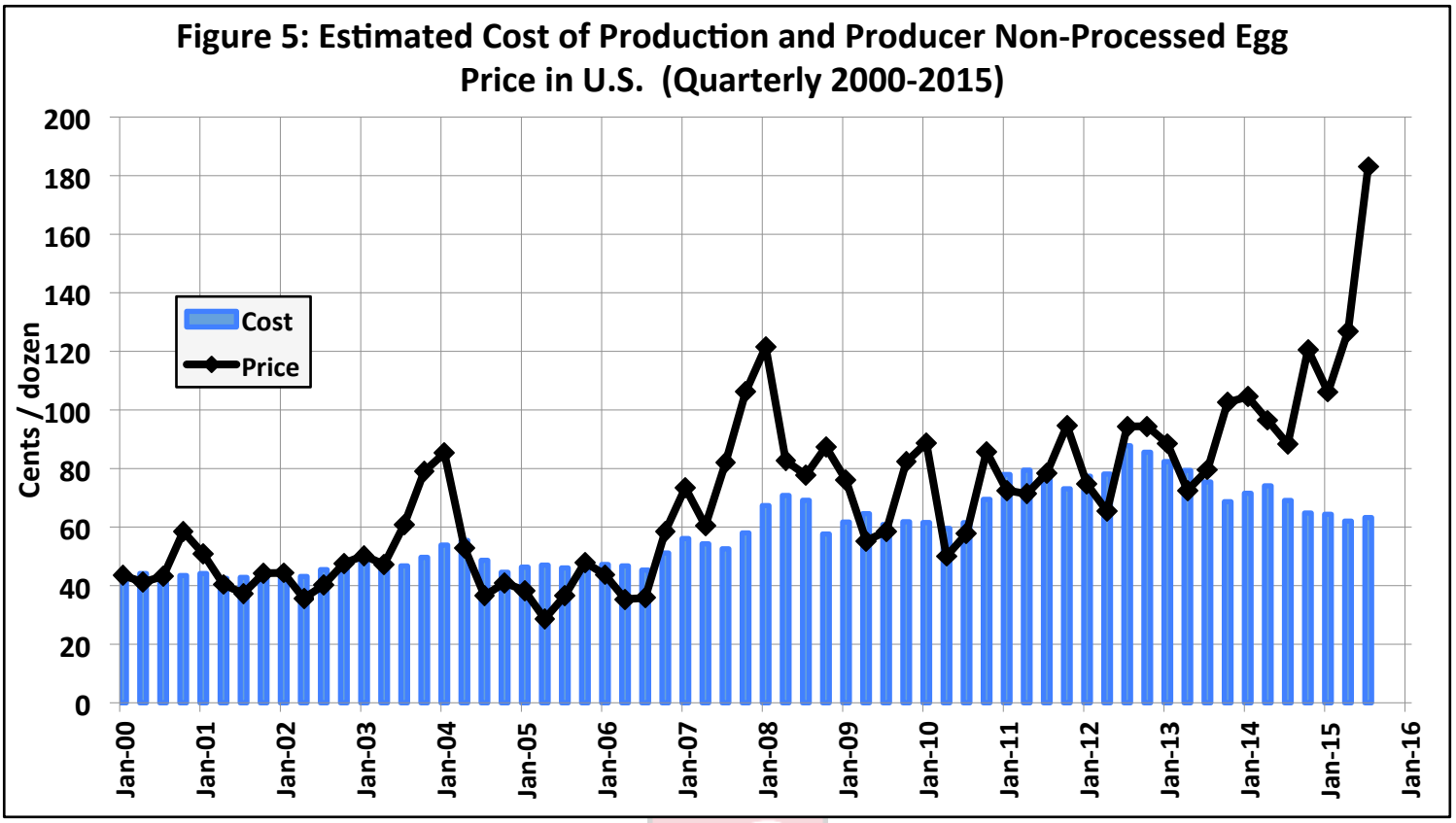
* Feed cost uses "5-Region avg" from table 3 and assumes: feed conversion of 3.11 lbs/dozen in 1-cycle, and 3.36 lbs/dozen under 2-cycle;

** Pullet cost uses "5-Region avg" from table 4 and assumes: 34.7 dozen eggs/hen housed in 1-cycle and 44.5 dozen eggs/hen housed under 2-cycles

Total cost assumes:building and equipment, labor, interest and miscellaneous costs are assumed to be 17.15 cents/dozen;

These estimations are based on standard costs for conventionally produced eggs. Higher labor costs might exist in certain regions. Newer, more efficient farms, would probably use less labor but have higher equipment costs.

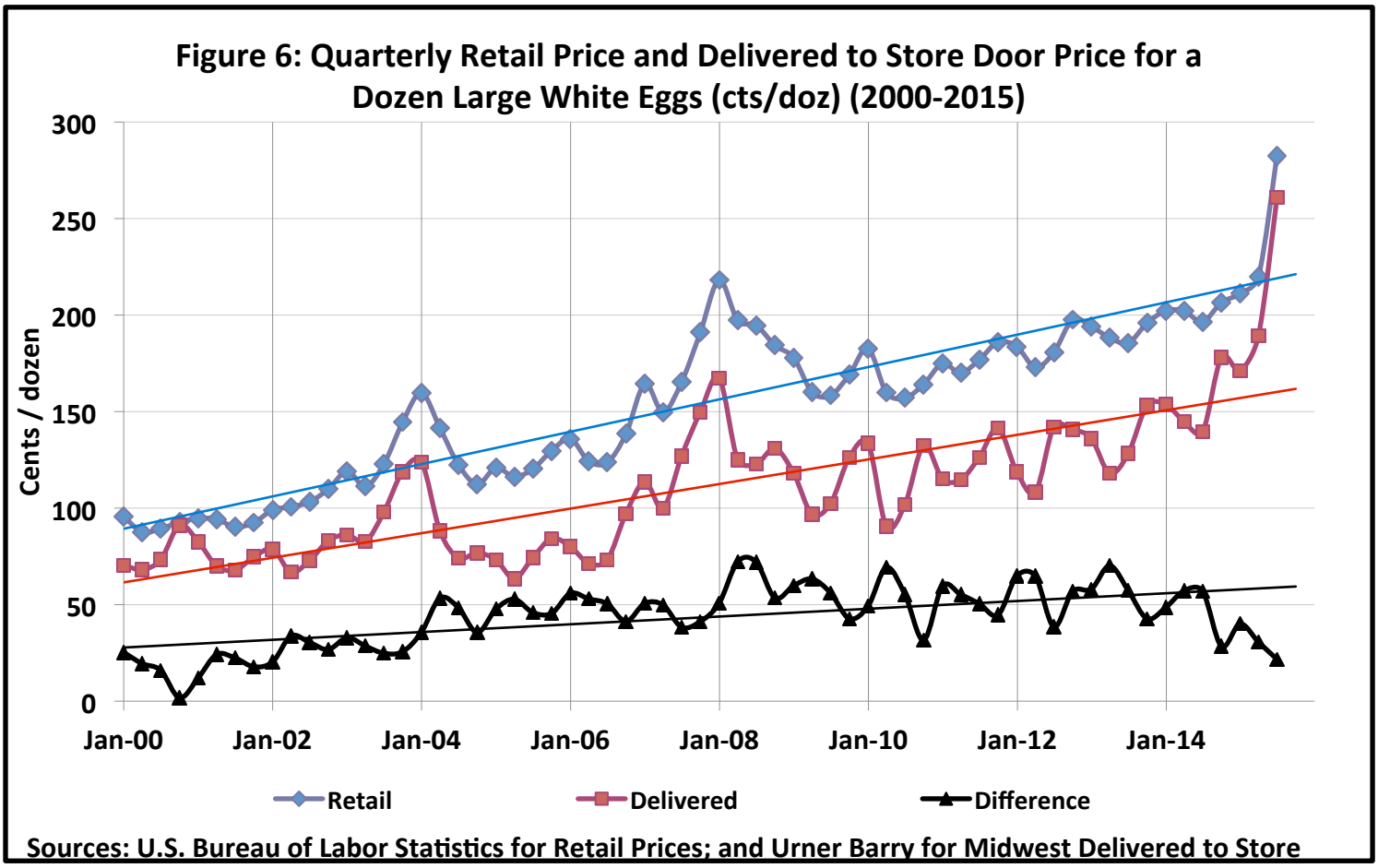
Note: "5-Region avg" is the simple average of the NE, SE, SC, MW, and NE regions. California is not considered for the average because of the different production requirements.



WAREHOUSE AND DELIVERED TO STORE PRICES FOR THE MIDWEST (cents/dozen) **TABLE 10**

	Large White Eggs Prices (cents/dozen)							
	Warehouse				Delivered Store Door			
month	2012	2013	2014	2015	2012	2013	2014	2015
Jan	106.25	112.93	113.07	111.15	111.75	118.43	118.57	116.65
Feb	91.45	112.82	135.97	133.50	96.95	118.32	141.47	139.00
Mar	98.59	113.15	133.75	149.18	104.09	118.65	139.25	154.68
Apr	97.31	97.86	146.77	115.36	102.81	103.36	152.27	120.86
May	76.55	105.45	116.21	136.20	82.05	110.95	121.71	141.70
Jun	92.50	89.75	115.83	223.82	98.00	95.25	121.29	229.32
Jul	103.55	104.73	122.18	206.55	109.05	110.23	127.68	212.05
Aug	131.33	106.82	116.02	260.40	136.83	112.32	121.52	265.90
Sep	120.50	106.50	111.93	217.02	125.50	112.00	117.43	222.52
Oct	113.55	106.50	117.09	161.65	119.05	112.00	122.59	167.15
Nov	124.10	134.29	141.32		129.60	139.79	146.82	
Dec	123.97	150.21	188.72		129.47	155.71	194.22	
10 Month Avg.	**103.16**	**105.65**	**122.88**	**171.48**	**108.61**	**111.15**	**128.38**	**176.98**
Year average	**106.64**	**111.75**	**129.91**		**112.10**	**117.25**	**135.40**	

Source: USDA AMS Poultry Market News and Analysis



Note: the delivered to store door price is estimated from the Urner Barry quoted prices as the 5- region simple average (Northeast, Southeast, South Central, Midwest, and Northwest). California is not considered for the average because of the different production requirements.

SPECIAL NOTE ABOUT PRICE PROJECTIONS

As everyone is aware, the avian influenza outbreak has affected the total supply of eggs in the U.S.

As a result, the egg market is experiencing great volatility making it near impossible to make projections.

The Egg Industry Center model for price projections is not designed to make projections under these extreme conditions.

Therefore we decided to suspend the price projections until the model can provide a reasonable representation of the market expectations.

TABLE 11: U.S. CORN AND SOYBEAN PLANTINGS, HARVEST, AND UTILIZATION (2011 to 2015)

Year	Corn Planted (Million acres)	Corn Harvest (Million acres)	Corn Production Harvested (Million bushels)	Soybeans Planted (Million acres)	Soybeans Harvest (Million acres)	Soybeans Production Harvested (Million bushels)
2011/12	91.9	84.0	12,360	75.0	73.8	3,094
2012/13	97.3	87.4	10,755	77.2	76.1	3,042
2013/14	95.4	87.5	13,829	76.8	76.3	3,358
2014/15	90.6	83.1	14,216	83.3	82.6	3,927
Projections November, 2015				**Projections** November, 2015		
2015/16	88.4	80.7	13,654	83.2	82.4	3,981

Utilization of Soybean for Various Purposes (Million bushels)

Year	Begin. Stocks	Product-ion	Imports	Total Supply	Crush	Seed Feed & residual	% Crush of total	Exports	Net Use	Ending Stocks
2011/12	215	3,094	16	3,325	1,703	87	51.2	1,365	3,155	169
2012/13	169	3,042	41	3,252	1,689	89	51.9	1,317	3,111	141
2013/14	141	3,358	72	3,570	1,734	97	48.6	1,638	3,478	92
2014/15	92	3,927	33	4,052	1,873	97	43.9	1,843	3,861	191
2015/16+	191	3,981	30	4,203	1,890	92	45.0	1,715	3,738	465

Utilization of Corn for Various Purposes (Million bushels)

Year	Begin. Stocks	Product-ion	Imports	Total Supply	Feed	(Fuel) *	Food & Industrial	Exports	Net Use	Ending Stocks
2011/12	1,128	12,360	29	13,517	4,557	5,000	6,428	1,543	12,528	989
2012/13	989	10,755	160	11,904	4,315	4,641	6,038	730	11,083	821
2013/14	821	13,829	36	14,686	5,040	5,124	6,493	1,920	13,454	1,232
2014/15	1,232	14,216	32	15,479	5,315	5,209	6,568	1,864	13,748	1,731
2015/16+	1,731	13,654	30	15,415	5,300	5,175	6,555	1,800	13,655	1,760

\+ (forecast November, 2015)

* Fuel is included in the "Food and Industrial" category

	Feed	Fuel	Food & Industrial *	Exports	Ending Stocks
2011/12	33.7%	37.0%	10.6%	11.4%	7.3%
2012/13	36.2%	39.0%	11.7%	6.1%	6.9%
2013/14	34.3%	34.9%	9.3%	13.1%	8.4%
2014/15	34.3%	33.7%	8.8%	12.0%	11.2%
2015/16+	34.4%	33.6%	9.0%	11.7%	11.4%

*** excluding the use for fuel**

Sources Acknowledgements (double click on the links below and you can go directly to the source):

Feedstuffs weekly newspaper http://www.feedstuffs.com
USDA ERS Feed Outlook http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1273
USDA ERS Oil Crops Outlook http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1288
Urner Barry http://www.ubcomtell.com/
Bureau of Labor Statistics http://data.bls.gov/cgi-bin/srgate

Maro Ibarburu, EIC Business Analyst
Iowa State University, Ames, IA
Phone (515) 294-8132
E-mail: maro@iastate.edu

Egg Industry Center

Don -
Thank you for all your contributions to this industry.
You will be forever missed.
Your friends at EIC