

# U.S. Flock Trends and Projections

February 9, 2018



*Compiled by*  
**Maro Ibarburu**

*Sponsored in part by:*



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.*

## U.S. EGG INDUSTRY STATISTICAL REPORT SUMMARY

\* The December hatch (straight-run chicks) was 0.4% higher than December 2016. This projects forward to a 20.7 million pullet placement for May of 2018 which is 0.1 million higher than May of 2017 placement (20.6).

\* Current (December average, 2017) U.S. table egg layer number (321.9 million) is 1.0 percent larger than last year's number at this time (318.8 million), and 2.4 million larger than last month (319.5 million).

\* In December, Iowa led the nation with 54.0 million laying hens compared to 31.8 million in Indiana, 30.9 million in Ohio, and 26.7 million in Pennsylvania. California (with 14.4 million layers) lost it's 5th position to Texas with 17.8 million layers.

\* The January 1st U.S. rate of lay was 78.7% which is 1.8% lower than January 1st 2017 level. The total number of table eggs produced in December 2017 was 0.2% lower than the December 2016 production.

\* The December 2017 number of eggs exported was 3% higher than last year (December 2016) and 9% lower than last month (November 2017). The December exports represented 3.5% of the number of eggs produced.

\* Shell eggs broken for products in December 2017 totaled 6.301 million cases, 3.0% less than in December 2016 (6.498 million cases).

### Monthly Highlights (Compared to December a year ago) (% change) - U.S.

	2016	2017	% Change
Hatch - Egg-Type Straight Run (thousands) (U.S.)	45,633	45,836	0.4
Table Egg Layers (millions) (U.S.)	318.8	321.9	1.0
Rate of lay (percent)	80.4	80.2	-0.2
Molting (January 1, 2018) (percent in + out of a molt)	17.4	18.6	6.9

### Year-end layers (millions) - U.S.

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Million	284.7	285.6	285.2	286.8	290.1	298.6	308.2	311.3	291.1	318.6	321.4*

\* preliminary value

### SPECIAL NOTE:

Data for the previous month may be changed by the USDA to reflect updates following late submissions by responders.



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EGG TYPE: EGGS IN INCUBATORS (on the 1st of the month) and STRAIGHT RUN HATCH (U.S.)

TABLE 1

EGG-TYPE Eggs in Incubators (thousands)				EGG-TYPE Straight Run Hatch (thousands)				
month	2017	2018	Change (%)	month	2015	2016	2017	Change %
Jan	39,741	46,660	17.4	Jan	43,868	47,775	44,906	-6.0
Feb	48,152			Feb	43,774	54,289	48,456	-10.7
Mar	52,142			Mar	50,187	57,055	55,457	-2.8
Apr	51,078			Apr	50,193	51,266	52,025	1.5
May	47,517			May	48,315	57,306	53,073	-7.4
Jun	46,556			Jun	47,212	57,562	48,828	-15.2
Jul	41,218			Jul	42,790	41,609	41,463	-0.4
Aug	40,123			Aug	47,131	43,258	45,439	5.0
Sep	40,068			Sep	49,391	44,892	42,271	-5.8
Oct	46,262			Oct	50,194	43,344	51,239	18.2
Nov	44,949			Nov	45,848	41,648	47,999	15.2
Dec	46,495			Dec	46,679	45,633	45,836	0.4
<b>1 Month Avg.</b>	39,741	46,660	17.4	<b>12 Month Avg.</b>	47,132	48,803	48,083	-1.5
<b>1 Month Total</b>	39,741	46,660		<b>12 Month Total</b>	565,582	585,637	576,992	
<b>12 Month Total</b>	560,591			<b>12 Month Total</b>	565,582	585,637		

Source: USDA NASS Chickens and Eggs

Figure 1: Egg-Type Hatch (1,000)

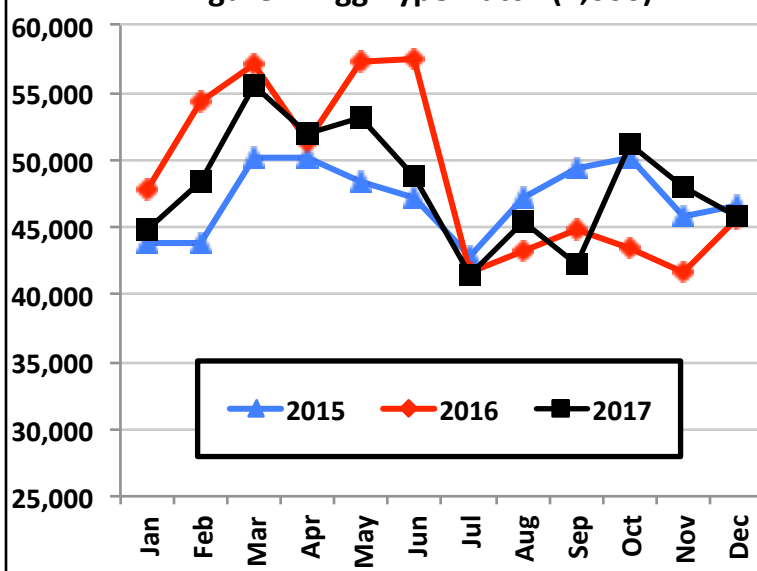
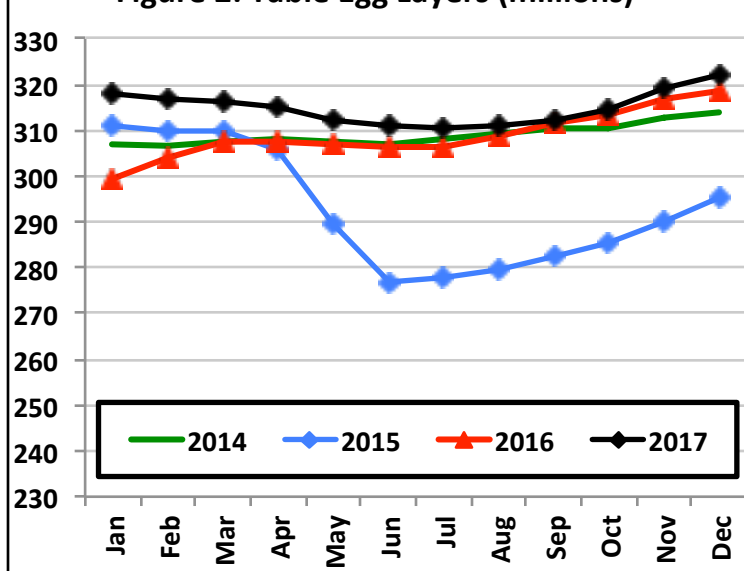


Figure 2: Table Egg Layers (millions)

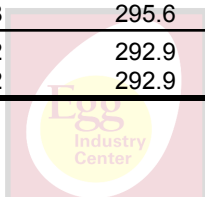


AVERAGE U.S. TABLE EGG LAYERS (MILLIONS)

TABLE 2

month	TOTAL Table Egg Layers						% Change with respect to	
	2012	2013	2014	2015	2016	2017	last year	2012-2016
Jan	289.6	298.7	307.2	311.2	299.3	318.1	6.3	5.6
Feb	289.7	299.7	306.7	310.0	304.0	316.8	4.2	4.9
Mar	290.7	300.4	307.7	310.2	307.4	316.1	2.8	4.2
Apr	290.2	298.1	308.3	305.9	307.4	314.9	2.4	4.3
May	289.2	296.6	307.6	289.3	307.0	312.3	1.7	4.8
Jun	288.3	296.9	307.0	276.9	306.5	310.8	1.4	5.3
Jul	287.7	297.4	308.2	278.1	306.4	310.6	1.4	5.1
Aug	289.3	299.4	309.6	279.7	308.6	311.3	0.9	4.7
Sep	291.8	300.1	310.4	282.4	311.7	312.4	0.2	4.4
Oct	295.3	301.1	310.7	285.6	313.6	314.7	0.3	4.4
Nov	299.8	304.5	312.7	290.2	316.7	319.5	0.9	4.8
Dec	300.2	307.1	313.8	295.6	318.8	321.9	1.0	4.8
<b>12 Month Avg.</b>	291.8	300.0	309.2	292.9	309.0	315.0	1.9	4.8
<b>Annual Avg.</b>	291.8	300.0	309.2	292.9	309.0			

Source: USDA NASS Chickens and Eggs



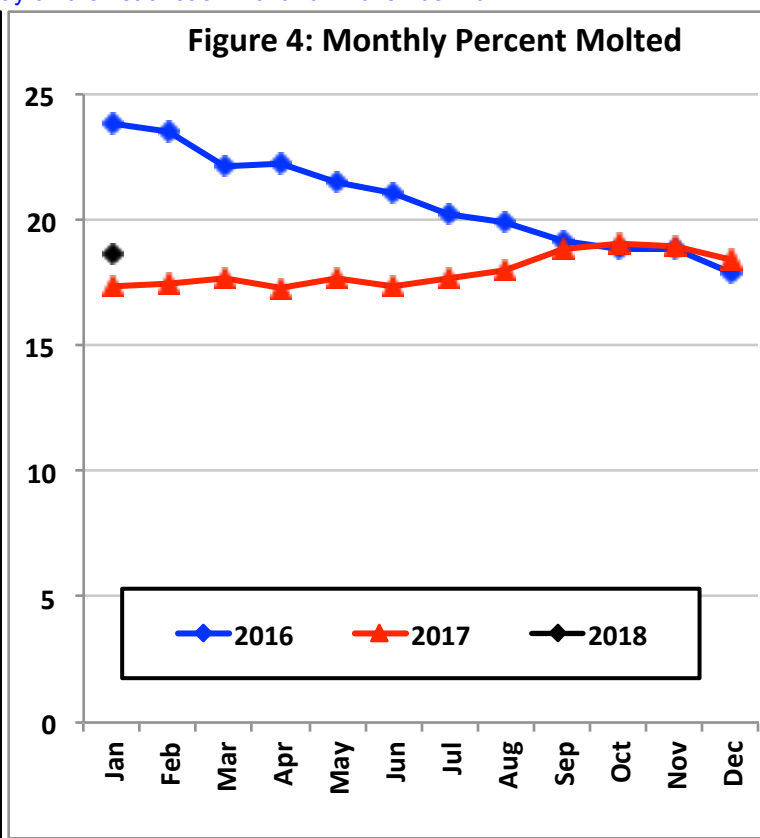
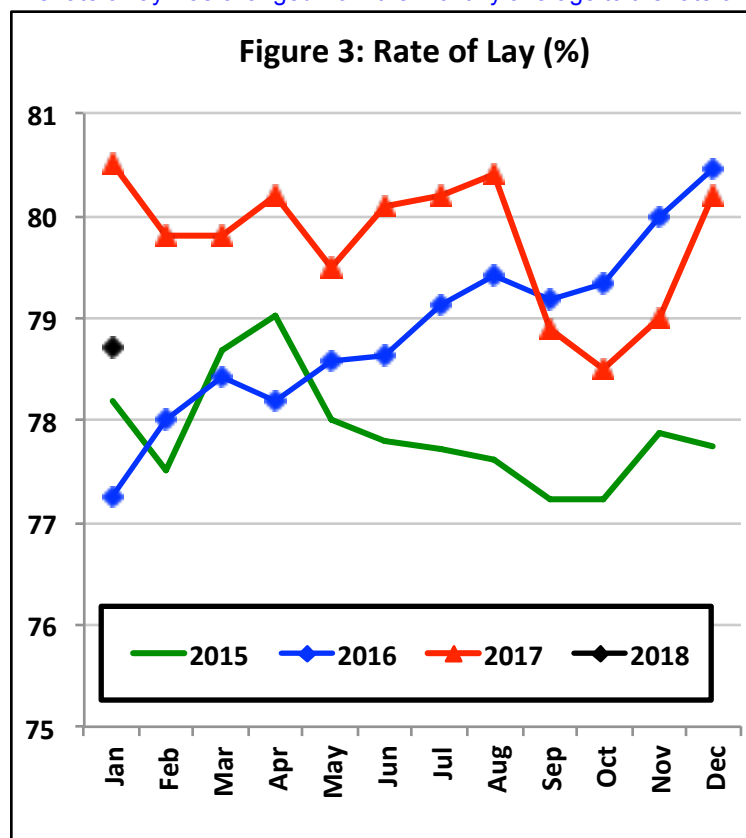
U.S. TABLE EGGS, AND RATE OF LAY on the 1st of EACH MONTH (ALL STATES)

TABLE 3

month	Table Eggs - human consumption (millions)						Rate of Lay (Table)	
	2013	2014	2015	2016	2017	Change (%)	2017	2018
Jan	7,160	7,417	7,545	7,168	7,904	10.3	80.5	78.7
Feb	6,437	6,667	6,726	6,878	7,080	2.9	79.8	
Mar	7,198	7,449	7,566	7,475	7,842	4.9	79.8	
Apr	6,954	7,256	7,252	7,213	7,546	4.6	80.2	
May	7,124	7,433	6,996	7,479	7,731	3.4	79.5	
Jun	6,878	7,185	6,464	7,228	7,476	3.4	80.1	
Jul	7,085	7,501	6,698	7,514	7,730	2.9	80.2	
Aug	7,186	7,497	6,729	7,597	7,686	1.2	80.4	
Sep	7,028	7,230	6,544	7,402	7,377	-0.3	78.9	
Oct	7,300	7,539	6,837	7,712	7,684	-0.4	78.5	
Nov	7,172	7,465	6,778	7,602	7,635	0.4	79.0	
Dec	7,471	7,746	7,125	7,950	7,935	-0.2	80.2	
YTD Avg.	7,083	7,365	6,938	7,435	7,635	2.7	80.5	78.7
Annual Avg.	7,083	7,365	6,938	7,435			79.8	
Total	84,993	88,385	83,260	89,219				

Source: USDA NASS Chickens and Eggs

The rate of lay was changed from the monthly average to the rate of lay on the 1st of each month on November 2017.



INDUCED MOLT PERCENT - U.S. TOTALS (1ST OF MONTH)

TABLE 4

month	In a Molt		Completed a Molt		In a molt + Completed a Molt			Change
	2017	2018	2017	2018	2016	2017	2018	
Jan	1.7	2.3	15.7	16.3	23.8	17.4	18.6	1.2
Feb	2.2		15.3		23.5	17.5		
Mar	2.4		15.3		22.1	17.7		
Apr	1.7		15.6		22.2	17.3		
May	2.7		15.0		21.5	17.7		
Jun	2.4		15.0		21.1	17.4		
Jul	2.4		15.3		20.2	17.7		
Aug	2.5		15.5		19.9	18.0		
Sep	3.5		15.3		19.2	18.8		
Oct	3.0		16.1		18.9	19.1		
Nov	2.1		16.9		18.8	19.0		
Dec	1.3		17.1		17.9	18.4		
<b>1 Month Avg.</b>	1.7	2.3	15.7	16.3	23.8	17.4	18.6	1.2
<b>12 Month Avg.</b>	2.3		15.7		20.8	18.0		

Source: USDA NASS Chickens and Eggs

SHELL EGGS BROKEN UNDER FEDERAL INSPECTION (MILLION CASES)

TABLE 5

month	2012	2013	2014	2015	2016	2017	% Change with respect to last year 2012-2016	
Jan	5.666	5.765	5.865	6.634	5.639	6.540	16.0	10.6
Feb	5.524	5.374	5.325	5.746	5.484	6.192	12.9	12.8
Mar	5.715	5.831	6.086	6.030	6.308	6.601	4.6	10.1
Apr	5.634	5.950	6.205	6.061	6.255	6.126	-2.1	1.8
May	6.057	5.820	6.514	5.533	6.576	6.547	-0.4	7.3
Jun	5.955	6.118	6.532	6.408	6.679	6.604	-1.1	4.2
Jul	5.748	6.266	6.618	5.641	6.474	6.376	-1.5	3.7
Aug	6.523	6.200	6.596	5.589	6.804	6.603	-3.0	4.1
Sep	6.005	6.040	6.566	5.583	6.539	6.126	-6.3	-0.3
Oct	6.109	6.289	6.731	5.814	6.636	6.583	-0.8	4.2
Nov	5.577	5.738	6.086	5.350	6.499	6.296	-3.1	7.6
Dec	5.964	5.745	6.281	5.749	6.498	6.301	-3.0	4.2
<b>12 Month Avg.</b>	5.873	5.928	6.284	5.845	6.366	6.408	0.7	5.8
<b>12 Month Total</b>	70.477	71.136	75.405	70.138	76.391	76.895		
<b>12 Month Total</b>	70.477	71.136	75.405	70.138	76.391			

Source: USDA NASS Egg products - monthly

Million Cases Produced  
% BROKEN

236.092	245.515	231.279	247.832	254.514
30.1	30.7	30.3	30.8	30.2



PER CAPITA EGG CONSUMPTION BY QUARTER

TABLE 6

QUARTER	2010	2011	2012	2013	2014	2015	2016	2017*
1	61.8	61.3	63.2	64.2	65.6	65.7	67.5	68.5
2	61.9	61.5	62.2	63.3	66.2	62.9	67.4	68.2
3	62.5	62.8	63.3	64.6	67.2	61.9	68.8	68.4
4	63.1	64.3	65.6	66.1	68.5	65.7	71.0	69.7
Total	249.3	249.9	254.3	258.2	267.5	256.3	274.7	274.2

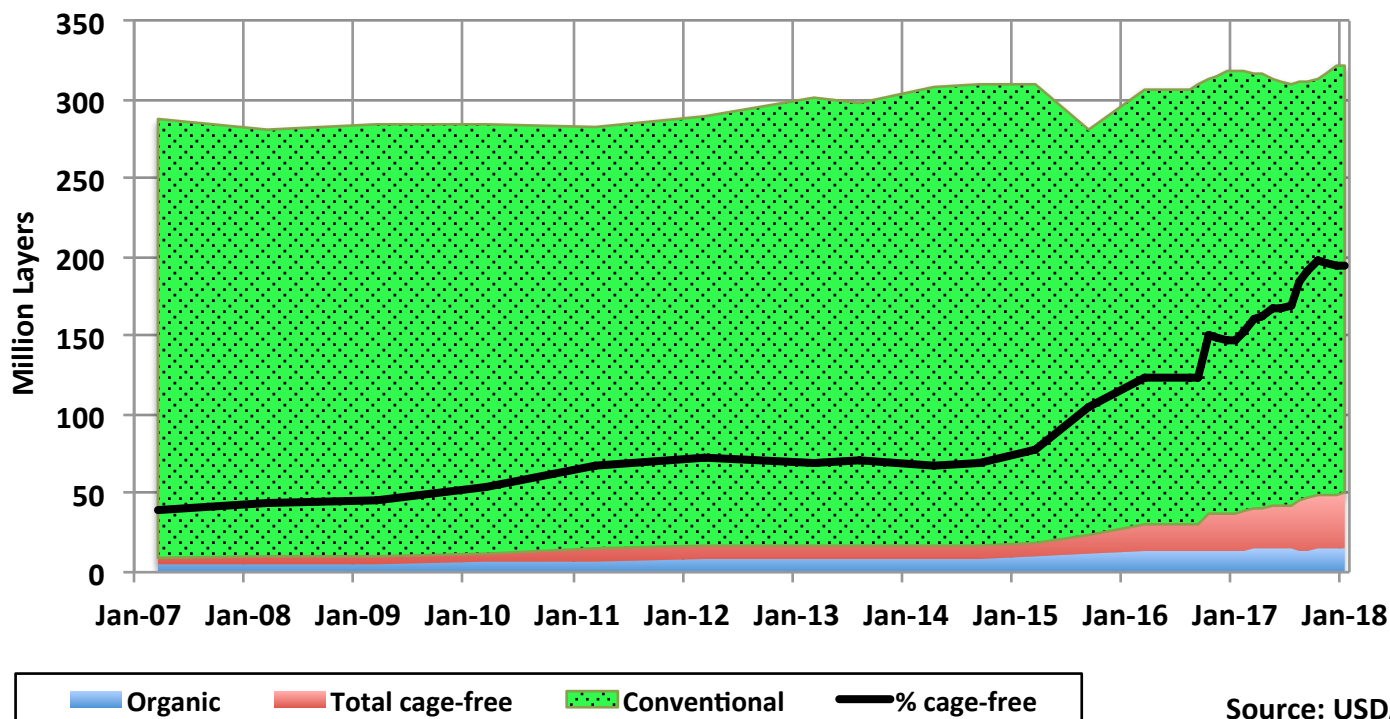
Change from previous year

0.6      4.4      3.9      9.3      -11.2      18.4      -0.5

Source: USDA ERS Livestock and Meat Trade Data.

\* Estimates for 2017 (12/2017)

Figure 5: U.S. Cage-Free and Conventional Layers



Source: USDA AMS

CAGE-FREE LAYERS (MILLIONS)

TABLE 7

	Non-Organic Cage-Free		Certified Organic		TOTAL Cage-Free Layers			Cage-Free % of U.S. Flock
	2017	2018	2017	2018	2017	2018	Change (%)	
January	23.5	35.7	14.1	14.6	37.6	50.2	34%	15.6%
February	24.4		14.1		38.5			
March	26.1		14.5		40.6			
April	26.6		14.6		41.2			
May	27.3		14.6		41.9			
June	27.3		14.6		41.9			
July	27.5		14.6		42.1			
August	31.7		14.1		45.8			
September	33.5		14.3		47.8			
October	34.7		14.7		49.4			
November	34.7		14.7		49.4			
December	35.0		14.7		49.7			

Source: USDAAMS (Monthly USDA Cage-Free Shell Egg Report)

Note: the number of layers represent the last month with data (sometimes the estimate is from a couple of months before).



EXPORT OF TABLE EGGS IN THE SHELL IN 2017 (Thousand cases- 30 doz)

TABLE 8

Month \ To	North America	Central America	Caribbean	European Union-28	East Asia	Southeast Asia	Middle East	Total 2017	Total 2016	% of U.S. Production
Jan	29.1	0.4	30.7	0.0	85.5	0.0	44.0	193.1	272.3	0.88
Feb	55.5	0.2	72.7	0.0	90.6	0.0	49.1	273.9	298.0	1.39
Mar	62.2	0.4	35.0	0.1	82.0	0.0	60.3	253.5	409.7	1.16
Apr	96.2	0.3	65.7	0.0	74.7	0.0	24.2	270.7	335.2	1.29
May	100.9	0.5	54.1	0.0	88.4	0.0	21.7	273.6	267.3	1.27
Jun	70.7	0.9	75.3	0.0	71.8	0.0	24.2	252.2	243.6	1.21
Jul	101.5	0.2	23.9	0.0	122.0	0.0	41.1	292.9	283.1	1.36
Aug	137.8	0.7	30.0	0.0	127.4	0.0	40.8	340.9	296.0	1.60
Sep	212.5	0.5	29.5	0.0	112.2	0.0	37.1	396.8	411.0	1.94
Oct	174.4	0.4	30.4	0.0	145.7	0.0	24.5	382.4	330.6	1.79
Nov	144.3	0.9	23.8	0.0	105.7	0.0	6.5	285.2	292.7	1.34
Dec	221.6	0.2	34.5	0.0	112.2	0.0	4.4	375.9	340.2	1.71
12 Mo. Total	1,406.6	5.6	505.6	0.1	1,218.2	0.0	377.8	3,591.1	3,779.6	1.41
%	39.2	0.2	14.1	0.0	33.9	0.0	10.5			

Source: USDA Foreign Agric. Service from U.S. Dept. of Commerce, U.S. Census Bureau, Foreign Trade Stats

EXPORT OF EGG PRODUCTS IN 2017 (EQUIVALENT: thousand cases- 30 doz)

TABLE 9

Month \ To	North America	Central America	Caribbean	European Union-28	East Asia	Southeast Asia	Middle East	Total 2017	Total 2016	% of U.S. Production
Jan	86.1	10.9	9.3	71.8	139.0	2.1	4.6	334.0	169.9	1.52
Feb	77.3	0.7	10.3	106.1	144.9	19.3	9.3	387.5	162.8	1.97
Mar	116.5	0.7	12.3	102.1	233.4	15.4	10.7	501.7	291.3	2.30
Apr	80.7	0.5	11.0	76.1	202.4	19.9	64.3	464.3	233.8	2.22
May	109.6	13.1	11.8	55.2	162.2	23.1	46.4	438.8	221.8	2.04
Jun	113.9	7.1	6.2	45.2	212.1	16.0	7.5	421.3	244.5	2.03
Jul	103.8	6.9	7.8	27.1	180.1	11.0	13.2	363.9	236.7	1.69
Aug	137.0	11.9	12.1	44.7	206.6	22.8	7.7	465.2	286.9	2.18
Sep	115.6	8.5	9.3	56.8	206.7	14.3	10.7	434.7	355.1	2.12
Oct	149.4	4.4	7.1	74.6	204.1	21.8	14.5	496.2	366.9	2.32
Nov	150.7	4.9	10.3	59.7	308.3	12.4	3.7	562.5	400.9	2.65
Dec	117.9	4.0	12.1	51.0	177.8	16.3	8.6	398.7	409.1	1.81
12 Mo. Total	1,358.4	73.6	119.6	770.5	2,377.5	194.4	201.1	5,268.6	3,379.6	2.07
%	25.8	1.4	2.3	14.6	45.1	3.7	3.8			

Note: Information has been converted from metric tonnes at a rate of 42 lbs. per case of liquid egg (edible + inedibles).

Source: USDA Economic Research Service from U.S. Dept. of Commerce, U.S. Census Bureau, Foreign Trade Stats.

TOTAL EGGS EXPORTED - 2017

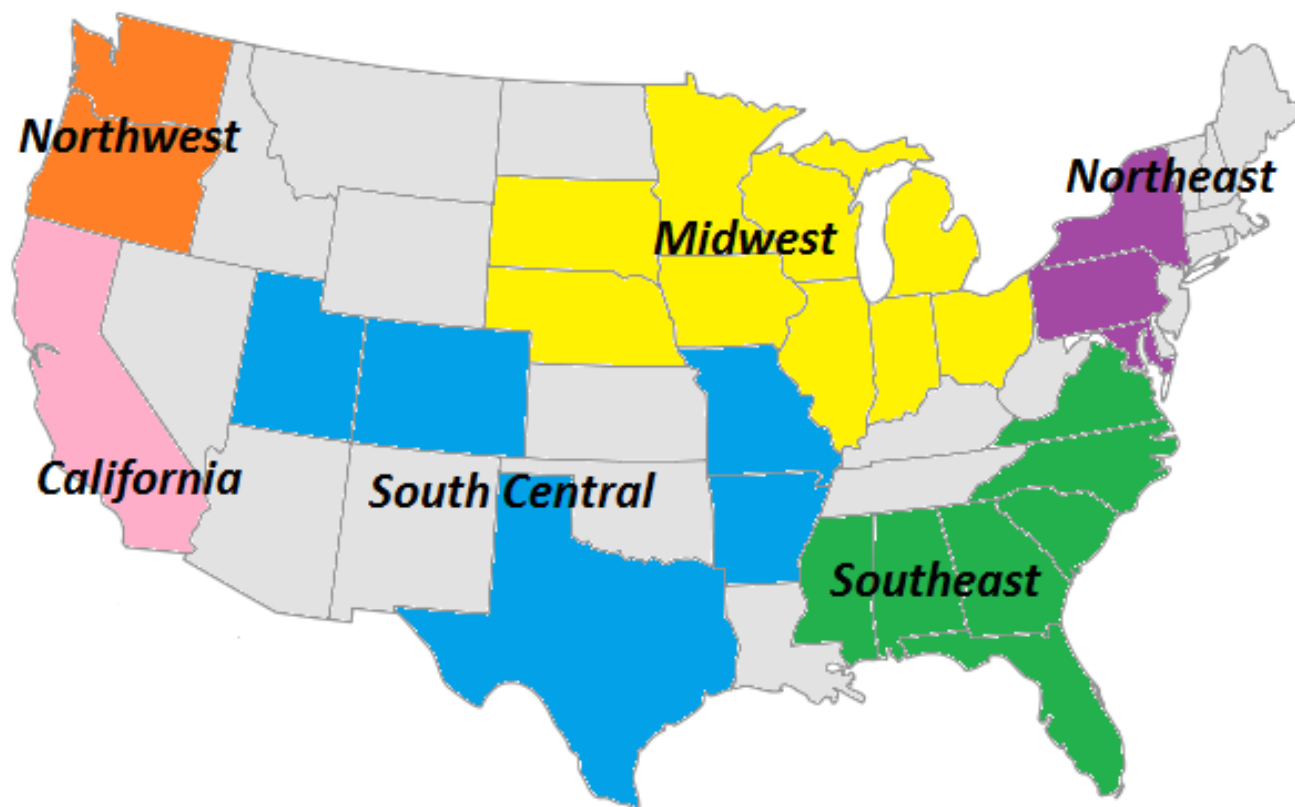
TABLE 10

	Table Eggs Produced	Shell Eggs Exported		Egg Products Exported		Total Exported	
	(000) Cases	(000) Cases	% of U.S.	(000) Cases	% of U.S.	(000) Cases	% of U.S.
Jan	21,954	193.1	0.88	334.0	1.52	527.1	2.40
Feb	19,666	273.9	1.39	387.5	1.97	661.4	3.36
Mar	21,783	253.5	1.16	501.7	2.30	755.2	3.47
Apr	20,961	270.7	1.29	464.3	2.22	735.0	3.51
May	21,475	273.6	1.27	438.8	2.04	712.3	3.32
Jun	20,766	252.2	1.21	421.3	2.03	673.5	3.24
Jul	21,473	292.9	1.36	363.9	1.69	656.8	3.06
Aug	21,351	340.9	1.60	465.2	2.18	806.1	3.78
Sep	20,490	396.8	1.94	434.7	2.12	831.5	4.06
Oct	21,344	382.4	1.79	496.2	2.32	878.6	4.12
Nov	21,209	285.2	1.34	562.5	2.65	847.7	4.00
Dec	22,043	375.9	1.71	398.7	1.81	774.6	3.51
Total/Av	254,514	3,591.1	1.41	5,268.6	2.07	8,859.7	3.48





# Map of U.S. Regions, as defined by Urner Barry, and the location of information used in this



## Notes

The grey shaded States are the ones where there is no data available about the layers in flocks with 30,000 or more hens.

Northwest is the sum of OR and WA

South Central is the sum of AR, UT, CO, MO and TX

Northeast is the sum of MD, NY and PA

Southeast is the sum of AL, FL, GA, MS, NC, SC and VA

Midwest is the sum of IA, IL, IN, MI, MN, NE, OH, WI, and SD

California is the state of California only

**TABLE EGG LAYERS IN FLOCKS OF 30,000 AND ABOVE BY REGION (Million) - 2017**

**TABLE 11**

month	Northeast	Southeast	South Central	Midwest	Northwest	California	U.S. Total
Jan	33.3	31.4	38.1	161.4	9.4	11.7	308.7
Feb	33.3	31.1	38.0	160.9	9.2	11.6	307.4
Mar	33.4	30.8	37.8	160.4	9.1	11.7	306.7
Apr	33.6	30.4	37.3	159.7	9.1	11.8	305.5
May	33.6	29.6	36.8	158.7	9.1	11.6	302.9
Jun	33.4	29.4	36.4	158.3	9.0	11.4	301.4
Jul	33.2	29.5	36.2	158.4	8.9	11.4	301.1
Aug	33.0	29.8	36.5	158.7	9.1	11.4	301.9
Sep	33.2	30.0	36.6	159.1	9.2	11.5	302.9
Oct	33.7	29.9	37.0	160.5	8.8	12.1	305.3
Nov	34.3	30.3	37.3	162.2	8.7	13.4	310.1
Dec	34.5	30.3	37.7	162.2	8.8	14.4	312.5
<b>12 Month Avg.</b>	33.6	30.2	37.1	160.0	9.0	12.0	305.5
<b>% of total</b>	11.0	9.9	12.2	52.4	3.0	3.9	

Source: USDA NASS Chickens and Eggs

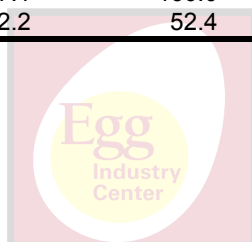


TABLE EGG LAYERS IN LEADING STATES - (LAYERS IN 30,000+ HEN FLOCKS) - 2017

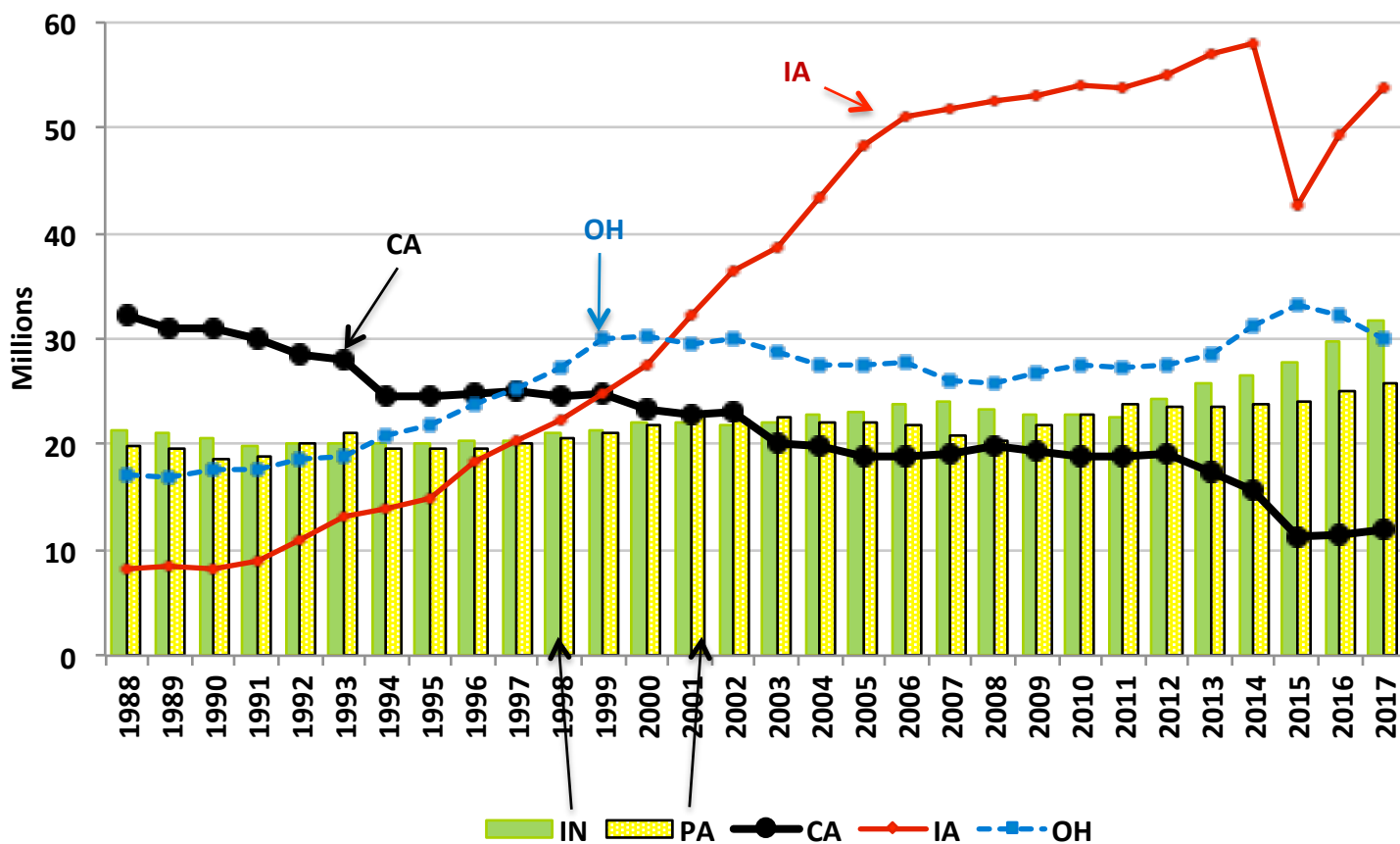
TABLE 12

month	IA	OH	IN	PA	CA	TX	U.S.
Dec-2016	53.88	30.79	31.44	25.81	11.55	16.85	309.39
			(Millions)				
Jan-2017	54.21	30.17	31.61	25.40	11.70	17.09	308.69
Feb-2017	54.39	29.74	31.40	25.20	11.60	17.30	307.39
Mar-2017	54.05	29.72	31.65	25.38	11.66	17.45	306.73
Apr-2017	53.41	29.67	31.97	25.67	11.82	17.33	305.50
May-2017	53.04	29.27	31.62	25.70	11.65	17.02	302.90
Jun-2017	53.42	29.17	31.27	25.43	11.36	16.94	301.38
Jul-2017	53.47	29.61	31.28	25.30	11.41	17.08	301.13
Aug-2017	53.68	29.92	31.49	25.18	11.40	17.29	301.88
Sep-2017	53.85	29.98	31.68	25.49	11.50	17.45	302.95
Oct-2017	54.11	30.33	31.77	26.11	12.15	17.64	305.27
Nov-2017	54.26	30.89	31.88	26.53	12.64	17.76	310.09
Dec-2017	53.98	30.91	31.75	26.73	14.37	17.76	312.51
12 Month Avg.	53.82	29.95	31.61	25.68	11.94	17.34	305.53

Source: USDA NASS Chickens and Eggs

% of all U.S. table egg layers in flocks with 30,000 or more hens = 97.0%

Figure 6: Leading States' Table Egg Layers in Flocks of 30,000 and Above (1988-2017)



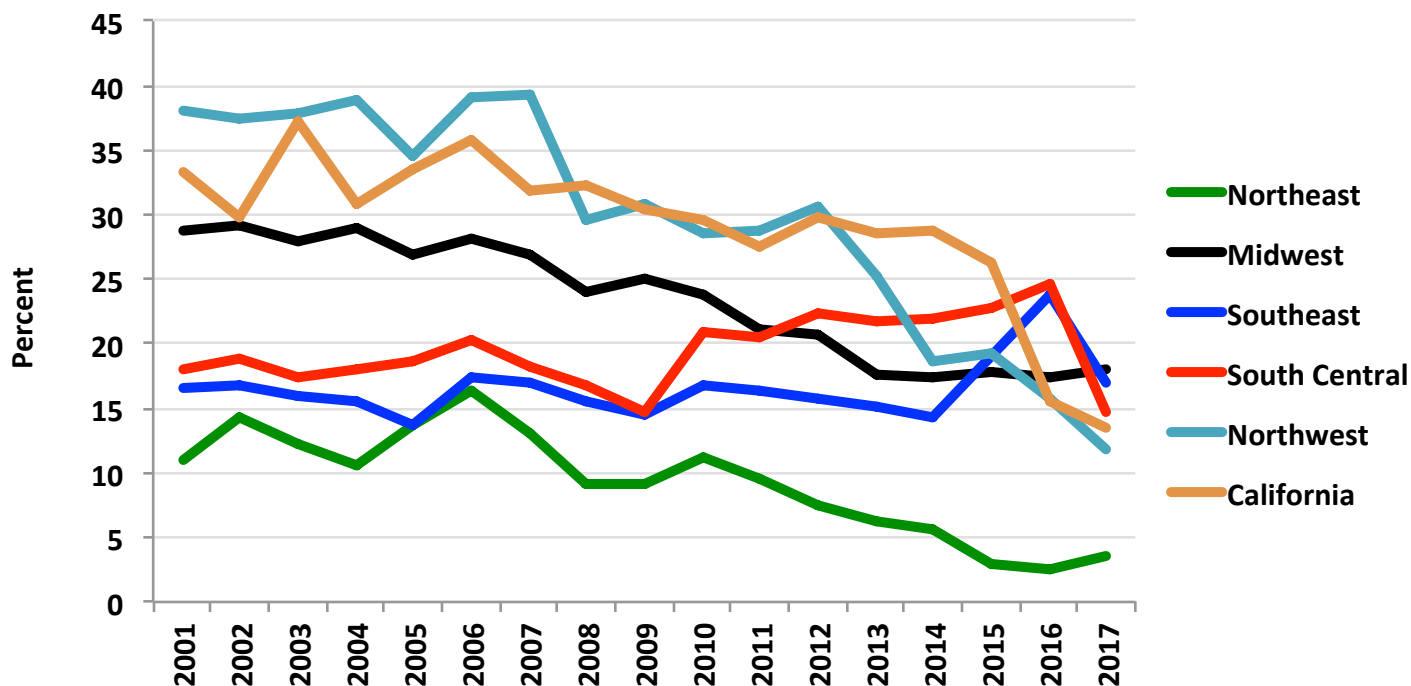
TOTAL MOLT (in-molt plus post-molt) BY REGION (Simple average of reporting States, %) - 2018

TABLE 13

month	Northeast	Southeast	South Central	Midwest	Northwest	California	U.S. Avg
Jan	3.5	17.1	14.8	18.1	11.8	13.5	18.6
Feb							
Mar							
Apr							
May							
Jun							
Jul							
Aug							
Sep							
Oct							
Nov							
Dec							
<b>1 Month Avg.</b>	<b>3.5</b>	<b>17.1</b>	<b>14.8</b>	<b>18.1</b>	<b>11.8</b>	<b>13.5</b>	<b>18.6</b>
<b>year 2016 avg.</b>	<b>3.2</b>	<b>26.5</b>	<b>27.2</b>	<b>20.2</b>	<b>18.8</b>	<b>18.5</b>	<b>20.8</b>

Source: USDA NASS Chickens and Eggs

Note: average molt is estimated as the simple average of the reported States

Figure 7: Percent of layers with molt completed by region  
(simple average of reporting States)

**PROJECTED U.S. EGG-TYPE HATCHERY SUPPLY FLOCK (Millions)****TABLE 14**

month	2012	2013	2014	2015	2016	2017	2018
Jan	2.657	2.579	2.540	2.682	3.081	2.480	2.741
Feb	2.672	2.613	2.536	2.689	3.074	2.497	2.768
Mar	2.731	2.630	2.472	2.605	2.997	2.641	2.604
Apr	2.732	2.588	2.530	2.718	2.840	2.604	2.613
May	2.819	2.515	2.497	2.917	2.805	2.598	2.498
Jun	2.778	2.537	2.439	2.892	2.866	2.646	2.389
Jul	2.791	2.436	2.608	2.797	2.836	2.595	2.474
Aug	2.830	2.515	2.535	2.797	2.725	2.663	
Sep	2.825	2.503	2.553	2.857	2.615	2.654	
Oct	2.786	2.468	2.610	2.958	2.446	2.681	
Nov	2.649	2.555	2.619	2.937	2.465	2.685	
Dec	2.745	2.476	2.664	2.947	2.549	2.659	
<b>7 month avg.</b>	2.740	2.557	2.517	2.757	2.928	2.580	2.584
<b>12 month avg.</b>	2.751	2.535	2.550	2.816	2.775	2.617	

Source: USDA NASS Chickens and Eggs

Note: The hatchery supply flock estimates are made by using 7 to 18 months prior hatch minus 9% mortality

**PULLETS TO BE HOUSED BASED UPON U.S. HATCH 5 MONTH AGO (Millions)****TABLE 15**

(47.5% of CHICKS PLACED multiplied by a 95% LIVABILITY FACTOR)

month	2013	2014	2015	2016	2017	2018	2013 to '17 month avg.
Jan	19.1	17.5	17.9	21.3	19.5	20.5	19.1
Feb	16.1	17.8	18.4	21.5	18.9	17.8	18.5
Mar	17.1	19.2	20.2	22.7	19.6	23.1	19.7
Apr	16.5	18.9	16.5	20.7	18.8	21.7	18.3
May	18.5	18.6	18.2	21.1	20.6	20.7	19.4
Jun	19.1	19.4	18.0	20.9	19.6		19.4
Jul	21.1	20.6	20.7	27.1	24.2		22.7
Aug	19.7	20.2	21.4	25.7	25.0		22.4
Sep	20.8	20.9	21.4	23.1	23.5		22.0
Oct	22.6	22.4	21.8	25.9	23.9		23.3
Nov	19.1	20.0	21.3	26.0	22.0		21.7
Dec	18.0	19.2	19.3	18.8	18.7		18.8
<b>5 month avg.</b>	17.5	18.4	18.2	21.4	19.5	20.8	19.0
<b>Annual Avg.</b>	19.0	19.5	19.6	22.9	21.2		20.4
<b>Total</b>	227.7	234.6	235.1	274.7	254.4		245.3

Source: USDA NASS Chickens and Eggs

% Change to date

6.57

Note: The number of pullets to be housed was reduced by 6 million based on the number reported as lost to avian influenza. We assumed the reduction as evenly spread during the period between May and September 2015 (assuming that the ages of affected birds was evenly distributed).



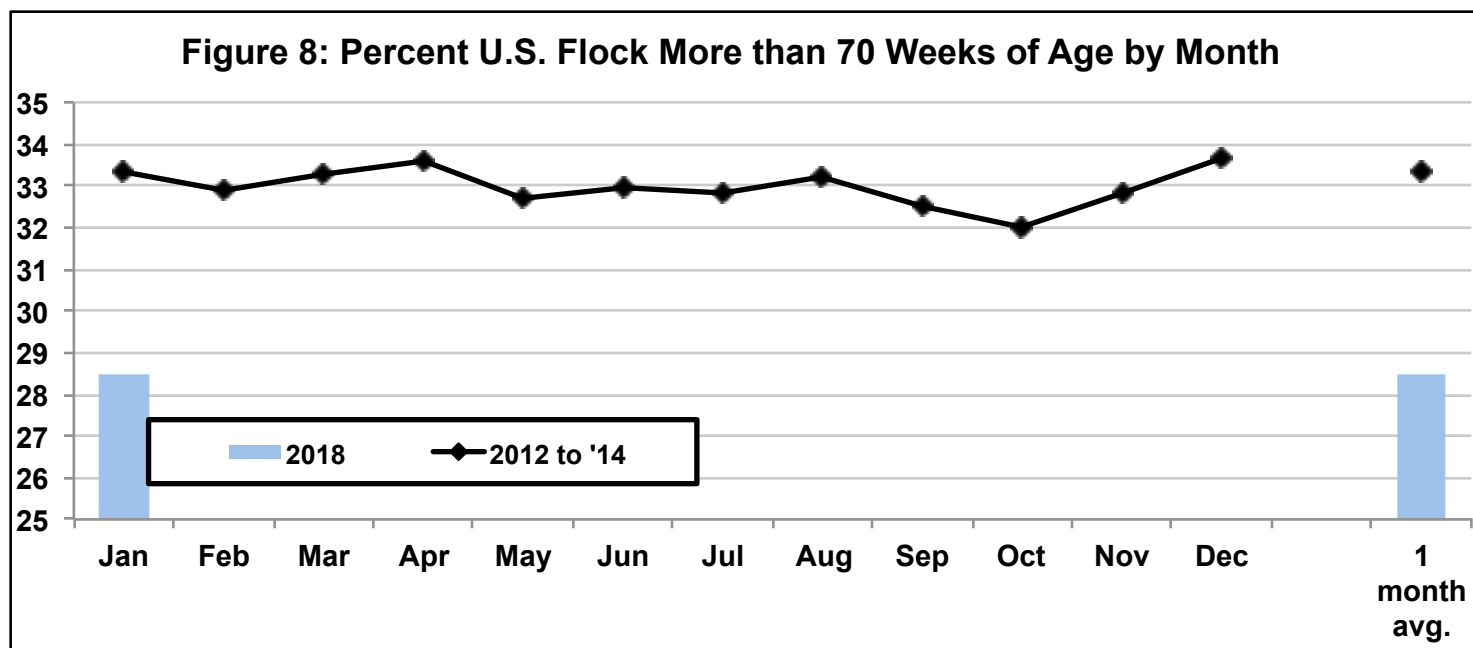
PROJECTED U.S. TABLE EGG FLOCK MORE THAN 70 WEEKS OF AGE (% of layers)

TABLE 16

	% of National Flock over 70 weeks of age (on the 1st of the month)						2012 to '14
	2013	2014	2015	2016	2017	2018	
Jan	34.1	33.1	32.2		22.4	28.5	33.3
Feb	34.1	31.8	31.1		23.0		32.9
Mar	34.9	31.8	32.0		23.4		33.3
Apr	34.9	32.5			23.8		33.6
May	33.5	32.2			23.8		32.7
Jun	33.8	32.2			23.6		33.0
Jul	33.7	32.4			24.7		32.9
Aug	33.7	33.4			26.0		33.2
Sep	32.7	32.5			25.7		32.5
Oct	31.4	32.1			26.6		32.0
Nov	32.6	31.5		22.7	28.2		32.9
Dec	33.2	32.8		21.8	28.5		33.6
1 month avg.	34.1	33.1	32.2			28.5	33.3
12 month avg.	33.6	32.4	31.7				33.0

Source: Egg Industry Center based on USDA NASS Chickens and Eggs data

Note: The number of layers younger than 70 weeks of age are estimated as the sum of the Egg-Type Chicks Hatched between 6 and 16 months before adjusted by a 47.5% of CHICKS PLACED multiplied by a 95% LIVABILITY FACTOR for pullets and a 98% average LIVABILITY FACTOR FOR LAYERS between 20 and 70 weeks of age.



## FLOCK SIZE PROJECTION

The U.S. flock size is projected for the current year and the following year for each month. Projections start with the first of the month official USDA count and are then adjusted monthly. Adjustments are made considering the most recent:

- Hatch data (projected 5-months into the future with mortality). Subsequent pullets added are estimated using the linear regression listed below for each month.

**Added /Beginning ratio estimated as:**  $0.0643 + 0.00415 * \text{Price } 12-18\_ \text{Jan} + 0.00149 * \text{Price } 12-18\_ \text{Feb} + 0.00439 * \text{Price } 12-18\_ \text{Mar} + 0.00203 * \text{Price } 12-18\_ \text{Apr} + 0.00465 * \text{Price } 12-18\_ \text{May} + 0.00601 * \text{Price } 12-18\_ \text{Jun} + 0.0115 * \text{Price } 12-18\_ \text{Jul} + 0.01208 * \text{Price } 12-18\_ \text{Aug} + 0.01238 * \text{Price } 12-18\_ \text{Sep} + 0.01298 * \text{Price } 12-18\_ \text{Oct} + 0.00766 * \text{Price } 12-18\_ \text{Nov} + 0.00231 * \text{Price } 12-18\_ \text{Dec} - 0.0004 * \text{"MOLT - previous 12-mo"}$

... where "Egg Price 12-18 mo earlier" is the average price of Midwest Large eggs for the months 12 to 18 before the month we are trying to project

... where "MOLT - previous 12-mo" is the previous 12 months average of the percentage of layers molted

Adjusted  $R^2=0.68$
- All birds coming out of production by any reason are included in the "Slaughter, Died and Missing" category. This is estimated as Beginning count + Added - Ending count. Subsequent layers coming out of production are estimated using the linear regression listed below for each month.

**Slaughter, Died & Missing/Beginning ratio estimated as:**  $0.678 * \text{Added /Beg. count} + 0.00347 * \text{Jan} - 0.0027 * \text{Feb} - 0.00078 * \text{Mar} + 0.00739 * \text{Apr} + 0.00357 * \text{May} + 0.0015 * \text{Jun} + 0.00063 * \text{Jul} - 0.00443 * \text{Aug} - 0.00214 * \text{Sep} - 0.00555 * \text{Oct} - 0.011 * \text{Nov} + 0.02112 * \text{Shock\_ Sep} + 0.00270 * \text{"CPI adjusted Shell \$ under 0.65"}$

... where "Added /Beg. count" is the ratio between the pullets added and the beginning flock count for the month we are trying to project

... where "Shock\_Sep" is a dummy variable to capture the losses experienced after the year 2010 SE recall

... where "CPI adjusted Shell \$ under 0.65" is a dummy variable that takes the value 1 if the Midwest Large White egg price adjusted by CPI is under 65 cents/dozen (equal to almost 84 cents in January 2017). CPI is the consumer price index of all food and beverages with base on the year 2005.

Adjusted  $R^2=0.53$

First of the Month Projection Estimates of U.S. Table Egg Layers (millions)

TABLE 17

Actual	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected	Projected
2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
321.4	320.7	320.1	321.6	319.0	317.5	316.3	316.7	318.8	320.3	323.0	326.3

Project. Year end: Dec, 2018 - 326

Note: Actual values source = Chickens and Eggs Report - USDA NASS



Date calculated: 2/1/2018

## 2018 Bird Flow by Month

Table 18

ACTUAL FLOCK (million birds)				
month	Beginning Count	Pullets added <sup>1</sup>	Slaughter, Died & Missing	Ending count
Jan-17	318.6	19.5	20.5	317.6
Feb-17	317.6	18.9	20.5	316.0
Mar-17	316.0	19.6	19.3	316.3
Apr-17	316.3	18.8	21.5	313.5
May-17	313.5	20.6	23.0	311.1
Jun-17	311.1	19.6	20.3	310.4
Jul-17	310.4	24.2	24.0	310.6
Aug-17	310.6	25.0	23.7	311.9
Sep-17	311.9	23.5	22.7	312.8
Oct-17	312.8	23.9	20.1	316.6
Nov-17	316.6	22.0	16.2	322.4
Dec-17	322.4	18.7	19.6	321.4
Jan-18	321.4	20.5		
Feb-18		17.8		
Mar-18		23.1		
Apr-18		21.7		
May-18		20.7		
Jun-18				
Jul-18				
Aug-18				
Sep-18				
Oct-18				
Nov-18				
Dec-18				

<sup>1</sup> at 5 months of age

Table 19

PROJECTED FLOCK (million birds)				
month	Beginning Count	Pullets added <sup>1</sup>	Slaughter, Died & Missing	Ending count
Jan-17	318.6	19.5	20.5	317.6
Feb-17	317.6	18.9	20.5	316.0
Mar-17	316.0	19.6	19.3	316.3
Apr-17	316.3	18.8	21.5	313.5
May-17	313.5	20.6	23.0	311.1
Jun-17	311.1	19.6	20.3	310.4
Jul-17	310.4	24.2	24.0	310.6
Aug-17	310.6	25.0	23.7	311.9
Sep-17	311.9	23.5	22.7	312.8
Oct-17	312.8	23.9	20.1	316.6
Nov-17	316.6	22.0	16.2	322.4
Dec-17	322.4	18.7	19.6	321.4
Jan-18	321.4	20.5	21.3	320.7
Feb-18	320.7	17.8	18.3	320.1
Mar-18	320.1	23.1	21.7	321.6
Apr-18	321.6	21.7	24.2	319.0
May-18	319.0	20.7	22.2	317.5
Jun-18	317.5	19.7	20.9	316.3
Jul-18	316.3	21.0	20.6	316.7
Aug-18	316.7	21.4	19.3	318.8
Sep-18	318.8	21.9	20.4	320.3
Oct-18	320.3	22.4	19.7	323.0
Nov-18	323.0	21.3	18.0	326.3
Dec-18	326.3			

<sup>1</sup> at 5 months of age

Actual number



## 2018 U.S. Flock Size: EIC Projections and USDA Reported Numbers

Table 20

EIC projected	USDA preliminary	USDA actual count
---------------	------------------	-------------------

For January 2018

Number of U.S. table egg layers (million) on the 1<sup>st</sup> of each month

Month & Year	Month when the Layer Number was Reported by USDA (highlighted) or Projected by EIC											
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Jan-17	321.4											
Feb-17	320.7											
Mar-17	320.1											
Apr-17	321.6											
May-17	319.0											
Jun-17	317.5											
Jul-17	316.3											
Aug-17	316.7											
Sep-17	318.8											
Oct-17	320.3											
Nov-17	323.0											
Dec-17	326.3											
Jan-18												
Feb-18												
Mar-18												
Apr-18												
May-18												
Jun-18												
Jul-18												
Aug-18												
Sep-18												
Oct-18												
Nov-18												
Dec-18												

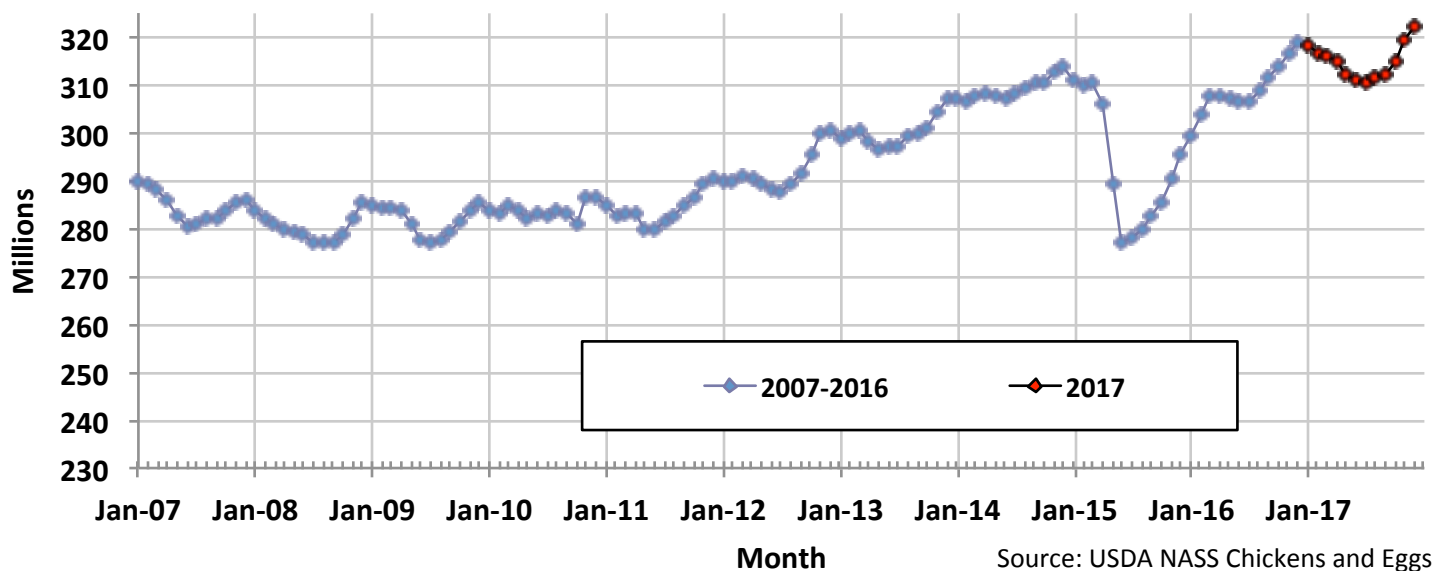
THIS PAGE HELPS VISUALIZE CHANGES IN FLOCK PROJECTIONS AS THE YEAR EVOLVES

Note: the January projections were made before the USDA Chickens and Eggs Report figures were adjusted.

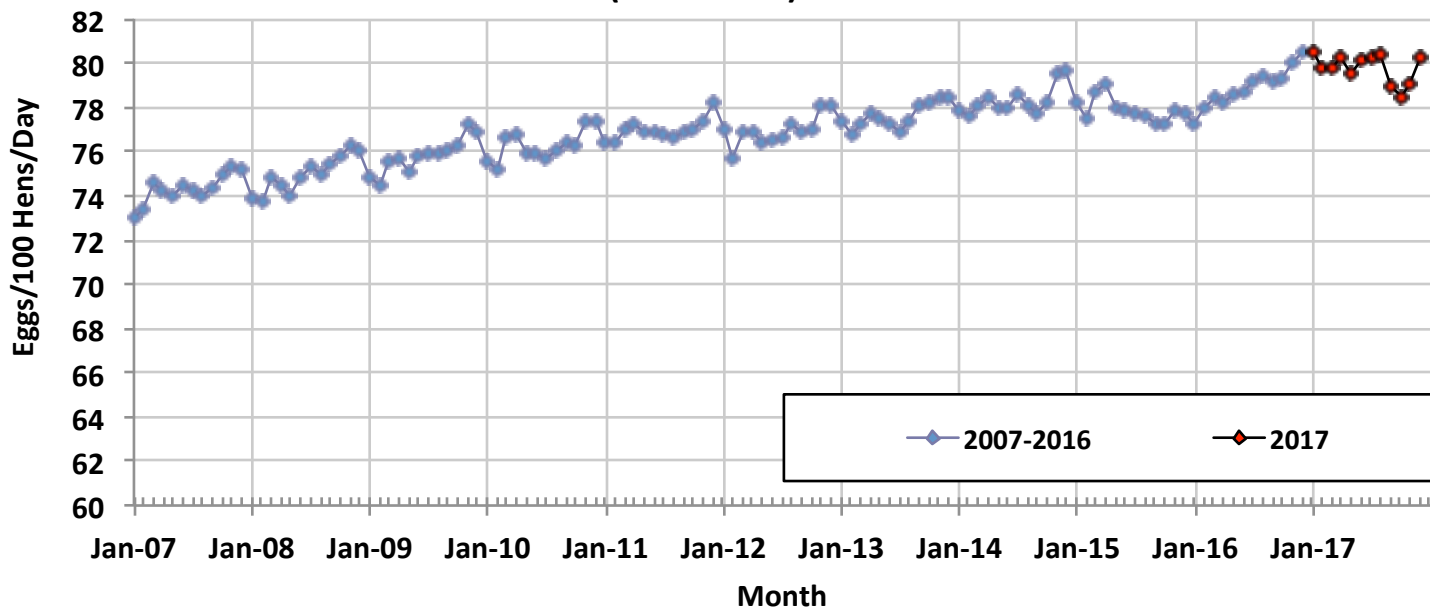




**Figure 9: U.S. Monthly Table-Egg Layers (2007-2017)**



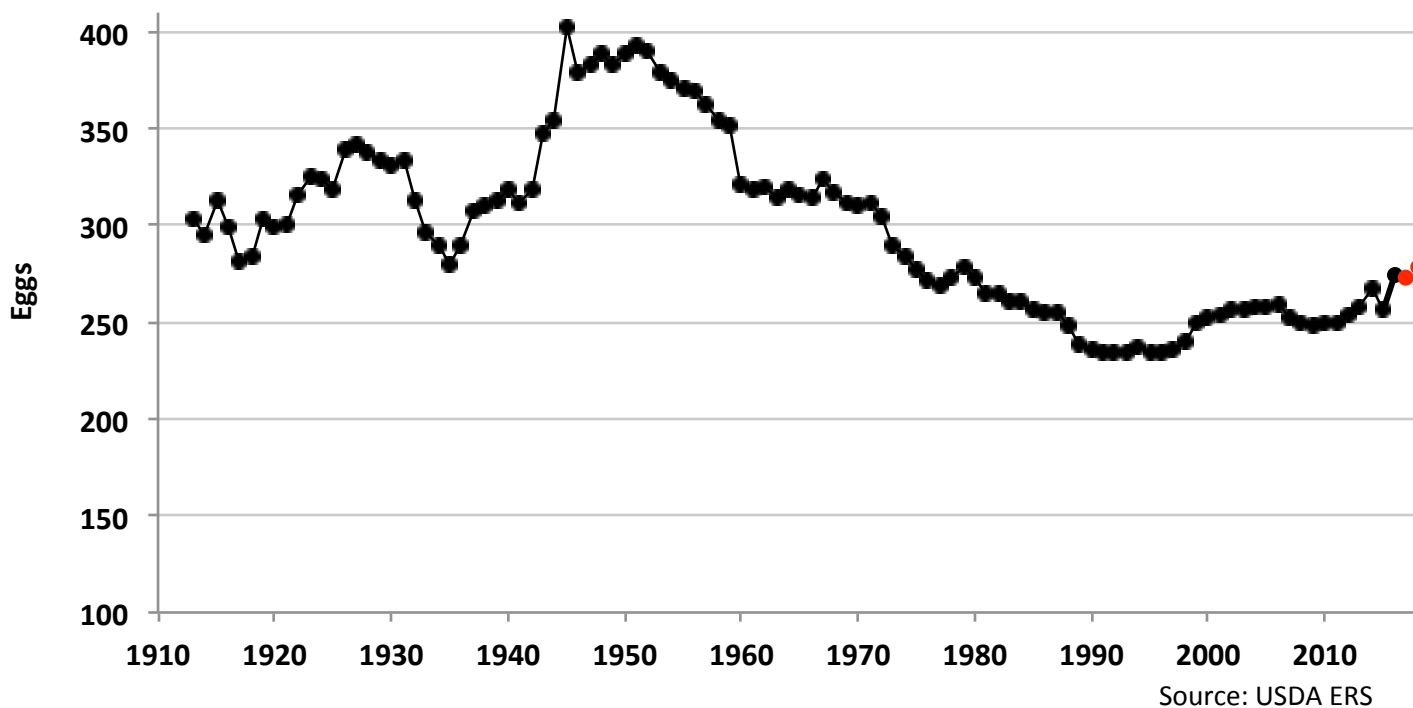
**Figure 10: U.S. Table Eggs per Hundred Hens per Day by Month (2007-2017)**



**Figure 11: Monthly Percent of U.S. Flock Molted (2007-2017)**



**Figure 12: U.S. Per Capita Egg Consumption by Year (1913-2018)**



## SUMMARY TO DATE

Table 21

			2017	2018	% Change
HATCH of EGG-TYPE STRAIGHT RUN (THOUSANDS) (U.S.) (Total)	Jan to Dec		48,803	48,083	-1.5
TABLE-EGG LAYERS (MILLIONS) (U.S.) (Avg.)	Jan to Dec		309.0	315.0	1.9
TABLE EGGS (MILLIONS/MONTH) (U.S.) (Avg.)	Jan to Dec		7,435	7,635	2.7
RATE OF LAY (%) (Avg.)	Jan to Dec		78.7	79.8	1.0
U.S. TABLE EGG AVG. CASES/WEEK (THOUSANDS)	Jan to Dec		1,711	1,757	2.7
AVG MONTHLY CASES OF EGGS BROKEN (MILLION) (U.S.)	Jan to Dec		6.366	6.408	0.7
			2016	2017	Difference
PERCENT OF U.S. FLOCK IN or POST MOLT (Avg.)	Jan to Jan 18		17.4	18.6	1.2
AVERAGE PULLETS ADDED/MONTH (MILLIONS) (U.S.)	Jan to May 18		19.5	20.8	1.3

Note: U.S. cost of production and egg prices are published in another Egg Industry Center report. Contact Maro Ibarburu at [maro@iastate.edu](mailto:maro@iastate.edu) to be placed on the mailing list to receive monthly copies of these reports.

## Webpages of some of the sources of information,

Access these sites by clicking on the blue addresses below:

USDA NASS Chickens and Eggs	<a href="http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1028">http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1028</a>
USDA NASS Poultry Slaughter	<a href="http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1131">http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1131</a>
USDA NASS Egg Products	<a href="http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1057">http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1057</a>
USDA ERS Livestock and Meat Trade Data.	<a href="http://www.ers.usda.gov/data/MeatTrade/BroilerTurkeyMonthly.htm">http://www.ers.usda.gov/data/MeatTrade/BroilerTurkeyMonthly.htm</a>
USDA FAS	<a href="http://www.fas.usda.gov/gats/ExpressQuery1.aspx">http://www.fas.usda.gov/gats/ExpressQuery1.aspx</a>
USDA NASS Cold Storage	<a href="http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1034">http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1034</a>
USDA AMS Poultry Market News and Analysis	<a href="http://marketnews.usda.gov/portal/py">http://marketnews.usda.gov/portal/py</a>
USDA AMS Monthly USDA Cage-Free Shell Egg Report	<a href="https://www.ams.usda.gov/mnreports/pymcagefree.pdf">https://www.ams.usda.gov/mnreports/pymcagefree.pdf</a>

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

