U.S. Flock Trends and Projections

October 5, 2018

Egg Industry Center

10th ANNIVERSARY

Compiled by

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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 August hatch (straight-run chicks) was 17.5% higher than August 2017. This projects forward to a 24.1 million pullet placement for January of 2019 which is 3.6 million higher than January of 2018 placement (20.5).

* Current (August average, 2018) U.S. table egg layer number (323.8 million) is 3.2 percent larger than last year's number at this time (313.8 million), and similar to last month (323.2 million).

* In August, Iowa led the nation with 56.4 million laying hens compared to 31.3 million in Ohio, 31.9 million in Indiana, and 25.2 million in Pennsylvania. California (with 13.9 million layers) lost it's 5th position to Texas with 17.7 million layers.

* The September 1st U.S. rate of lay was 79.6% which is 0.6% higher than September 1st 2017 level. The total number of table eggs produced in August 2018 was 2.7% higher than the August 2017 production.

* The August 2018 number of eggs exported was 14% lower than last year (August 2017) and 12% higher than last month (July 2018). The August exports represented 3.2% of the number of eggs produced.

* Shell eggs broken for products in August 2018 totaled 7.063 million cases, 7.0% more than in August 2017 (6.603 million cases).

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

	2016	2017	% Change
Hatch - Egg-Type Straight Run (thousands) (U.S.)	45,439	53,384	17.5
Table Egg Layers (millions) (U.S.)	313.8	323.8	3.2
Rate of lay (percent)	80.4	79.0	-1.4
Molting (September 1, 2018) (percent in + out of a molt)	18.9	17.0	-10.1

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

Year	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Million	285.6	285.2	286.8	290.1	298.6	308.2	312.9	297.7	318.9	322.0	337.6*

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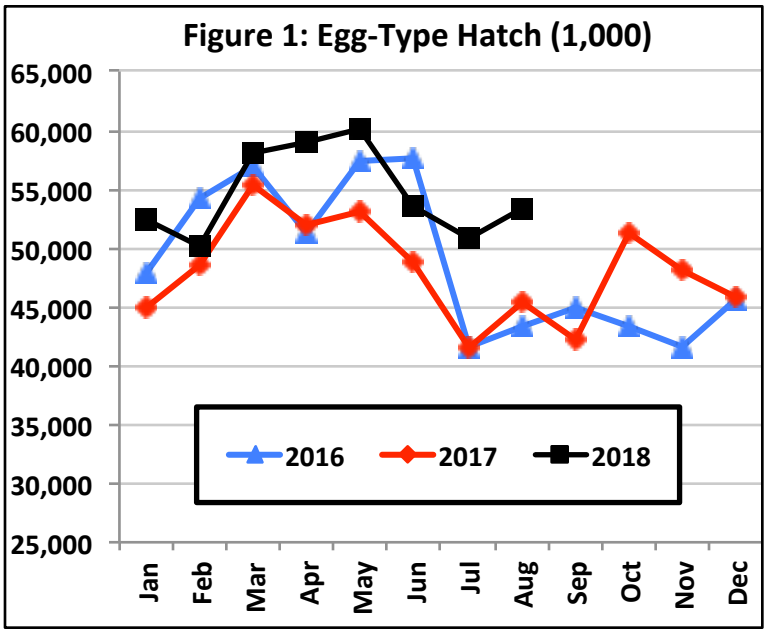
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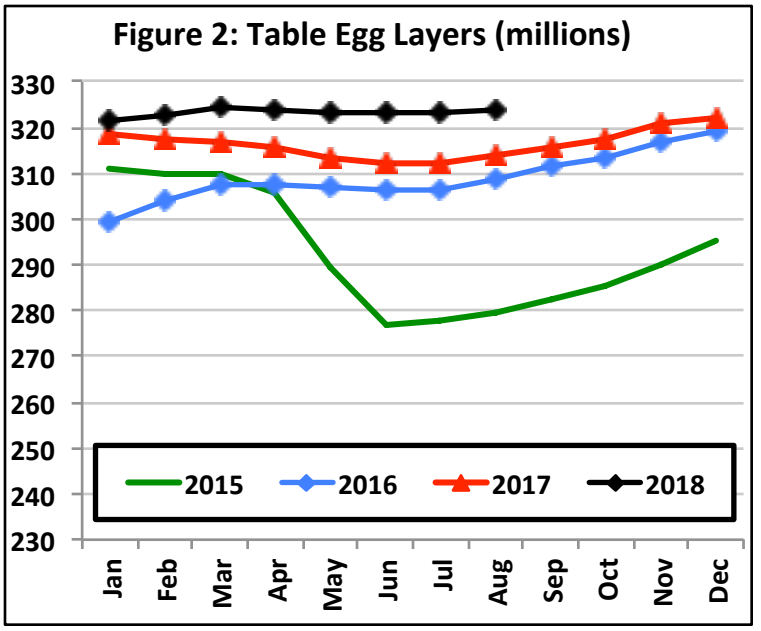
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EGG TYPE: EGGS IN INCUBATORS (on the 1st of the month) and STRAIGHT RUN HATCH (U.S.) **TABLE 1**

EGG-TYPE Eggs in Incubators (thousands)				EGG-TYPE Straight Run Hatch (thousands)				
month	2017	2018	Change (%)	month	2016	2017	2018	Change %
Jan	39,741	46,750	17.6	Jan	47,775	44,906	52,313	16.5
Feb	48,152	51,216	6.4	Feb	54,289	48,456	50,148	3.5
Mar	52,142	56,120	7.6	Mar	57,055	55,457	58,147	4.9
Apr	51,078	55,990	9.6	Apr	51,266	52,025	58,986	13.4
May	47,517	56,063	18.0	May	57,306	53,073	60,063	13.2
Jun	46,556	50,523	8.5	Jun	57,562	48,828	53,486	9.5
Jul	41,218	46,390	12.5	Jul	41,609	41,463	50,752	22.4
Aug	40,123	46,678	16.3	Aug	43,258	45,439	53,384	17.5
Sep	40,068	51,307	28.0	Sep	44,892	42,271		
Oct	46,262			Oct	43,344	51,239		
Nov	44,949			Nov	41,648	47,999		
Dec	46,495			Dec	45,633	45,846		
9 Month Avg.	45,177	51,226	13.4	**8 Month Avg.**	51,265	48,706	54,660	12.2
9 Month Total	406,595	461,037		**8 Month Total**	410,120	389,647	437,279	
12 Month Total	560,591			**12 Month Total**	585,637	577,002		

Source: USDA NASS Chickens and Eggs





AVERAGE U.S. TABLE EGG LAYERS (MILLIONS) **TABLE 2**

	TOTAL Table Egg Layers						% Change with respect to	
month	2013	2014	2015	2016	2017	2018	last year	2012-2016
Jan	298.7	307.2	311.2	299.3	318.5	321.4	0.9	4.7
Feb	299.7	306.7	310.0	304.0	317.3	322.7	1.7	4.9
Mar	300.4	307.7	310.2	307.4	316.7	324.5	2.5	5.2
Apr	298.1	308.3	305.9	307.4	315.8	324.1	2.6	5.5
May	296.6	307.6	289.3	307.0	313.5	323.5	3.2	6.8
Jun	296.9	307.0	276.9	306.5	312.2	323.5	3.6	7.9
Jul	297.4	308.2	278.1	306.4	312.4	323.2	3.4	7.5
Aug	299.4	309.6	279.7	308.6	313.8	323.8	3.2	7.1
Sep	300.1	310.4	282.4	311.7	315.5			
Oct	301.1	310.7	285.6	313.6	317.8			
Nov	304.5	312.7	290.2	316.7	320.7			
Dec	307.1	313.8	295.6	319.0	322.1			
8 Month Avg.	298.4	307.8	295.2	305.8	315.0	323.3	2.6	6.2
Annual Avg.	300.0	309.2	292.9	309.0	316.3			

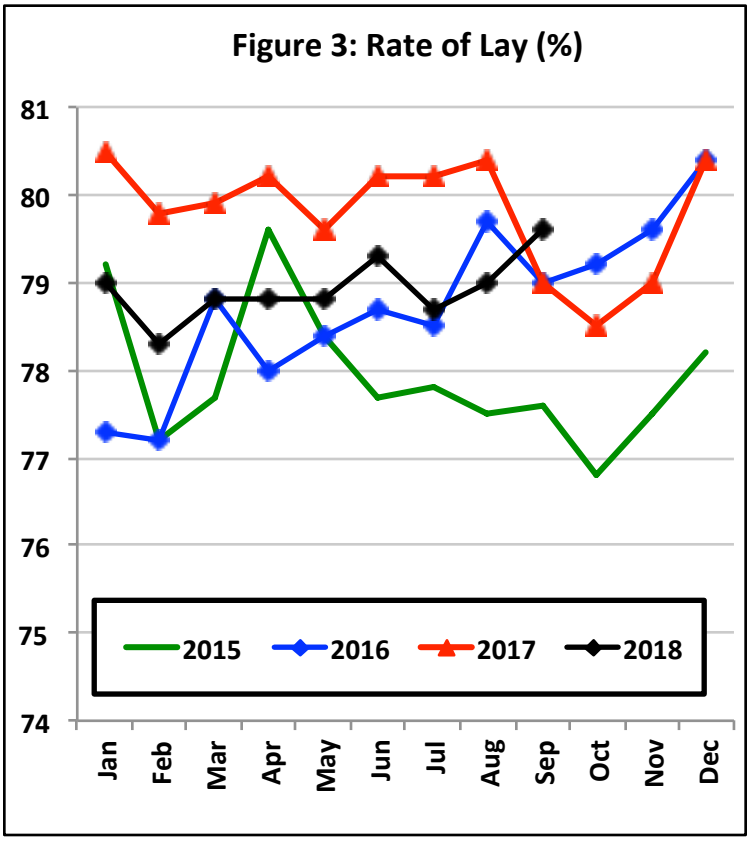
Source: USDA NASS Chickens and Eggs

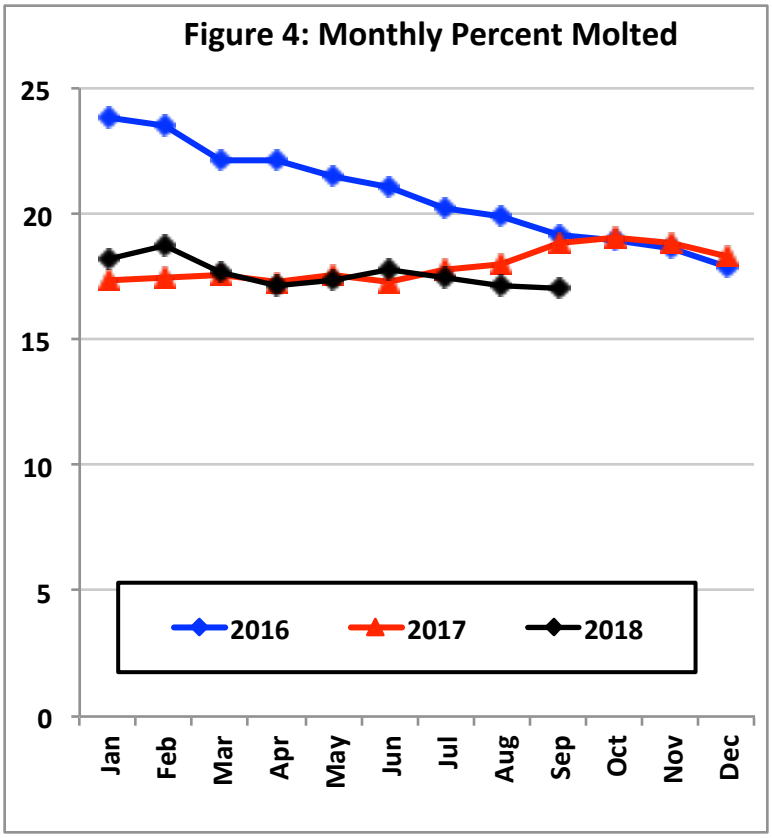
U.S. TABLE EGGS, AND RATE OF LAY on the 1st of EACH MONTH (ALL STATES) **TABLE 3**

month	Table Eggs - human consumption (millions) 2014	2015	2016	2017	2018	Change (%)	Rate of Lay (Table) 2017	2018
Jan	7,417	7,545	7,168	7,916	7,842	-0.9	80.5	79.0
Feb	6,667	6,726	6,878	7,096	7,100	0.1	79.8	78.3
Mar	7,449	7,566	7,475	7,862	7,932	0.9	79.9	78.8
Apr	7,256	7,252	7,213	7,573	7,665	1.2	80.2	78.8
May	7,433	6,996	7,479	7,765	7,933	2.2	79.6	78.8
Jun	7,185	6,464	7,228	7,514	7,670	2.1	80.2	79.3
Jul	7,501	6,698	7,514	7,782	7,901	1.5	80.2	78.7
Aug	7,497	6,729	7,597	7,755	7,965	2.7	80.4	79.0
Sep	7,230	6,544	7,402	7,457			79.0	79.6
Oct	7,539	6,837	7,724	7,763			78.5	
Nov	7,465	6,778	7,602	7,676			79.0	
Dec	7,746	7,125	7,954	7,964			80.4	
YTD Avg.	7,301	6,997	7,319	7,658	7,751	1.2	80.0	78.9
Annual Avg.	7,365	6,938	7,436	7,677			79.8	
Total	88,385	83,260	89,235	92,122				

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**

	In a Molt		Completed a Molt		In a molt + Completed a Molt			
month	2017	2018	2017	2018	2016	2017	2018	Change
Jan	1.7	1.9	15.7	16.3	23.8	17.4	18.2	0.8
Feb	2.2	2.9	15.3	15.8	23.5	17.5	18.7	1.2
Mar	2.4	1.8	15.2	15.9	22.1	17.6	17.7	0.1
Apr	1.7	1.8	15.6	15.3	22.1	17.3	17.1	-0.2
May	2.7	3.1	14.9	14.3	21.5	17.6	17.4	-0.2
Jun	2.4	3.0	14.9	14.8	21.1	17.3	17.8	0.5
Jul	2.4	2.3	15.4	15.2	20.2	17.8	17.5	-0.3
Aug	2.5	2.3	15.5	14.9	19.9	18.0	17.2	-0.8
Sep	3.5	2.4	15.4	14.6	19.2	18.9	17.0	-1.9
Oct	2.9		16.2		19.0	19.1		
Nov	2.0		16.8		18.6	18.8		
Dec	1.2		17.1		17.9	18.3		
9 Month Avg.	2.4	2.4	15.3	15.2	21.5	17.7	17.6	-0.1
12 Month Avg.	2.3		15.7		20.7	18.0		

Source: USDA NASS Chickens and Eggs

SHELL EGGS BROKEN UNDER FEDERAL INSPECTION (MILLION CASES) **TABLE 5**

							% Change with respect to	
month	2013	2014	2015	2016	2017	2018	last year	2013-2017
Jan	5.765	5.865	6.634	5.639	6.540	6.482	-0.9	6.5
Feb	5.374	5.325	5.746	5.484	6.192	5.904	-4.7	5.0
Mar	5.831	6.086	6.030	6.308	6.601	6.218	-5.8	0.8
Apr	5.950	6.205	6.061	6.255	6.126	6.403	4.5	4.6
May	5.820	6.514	5.533	6.576	6.547	6.922	5.7	11.7
Jun	6.118	6.532	6.408	6.679	6.604	6.891	4.3	6.5
Jul	6.266	6.618	5.641	6.474	6.376	6.770	6.2	7.9
Aug	6.200	6.596	5.589	6.804	6.603	7.063	7.0	11.1
Sep	6.040	6.566	5.583	6.539	6.126			
Oct	6.289	6.731	5.814	6.636	6.583			
Nov	5.738	6.086	5.350	6.499	6.296			
Dec	5.745	6.281	5.749	6.498	6.306			
8 Month Avg.	5.915	6.218	5.955	6.277	6.449	6.581	2.1	6.8
8 Month Total	47.324	49.741	47.642	50.220	51.589	52.651		
12 Month Total	71.136	75.405	70.138	76.391	76.901			

Source: USDA NASS Egg products - monthly

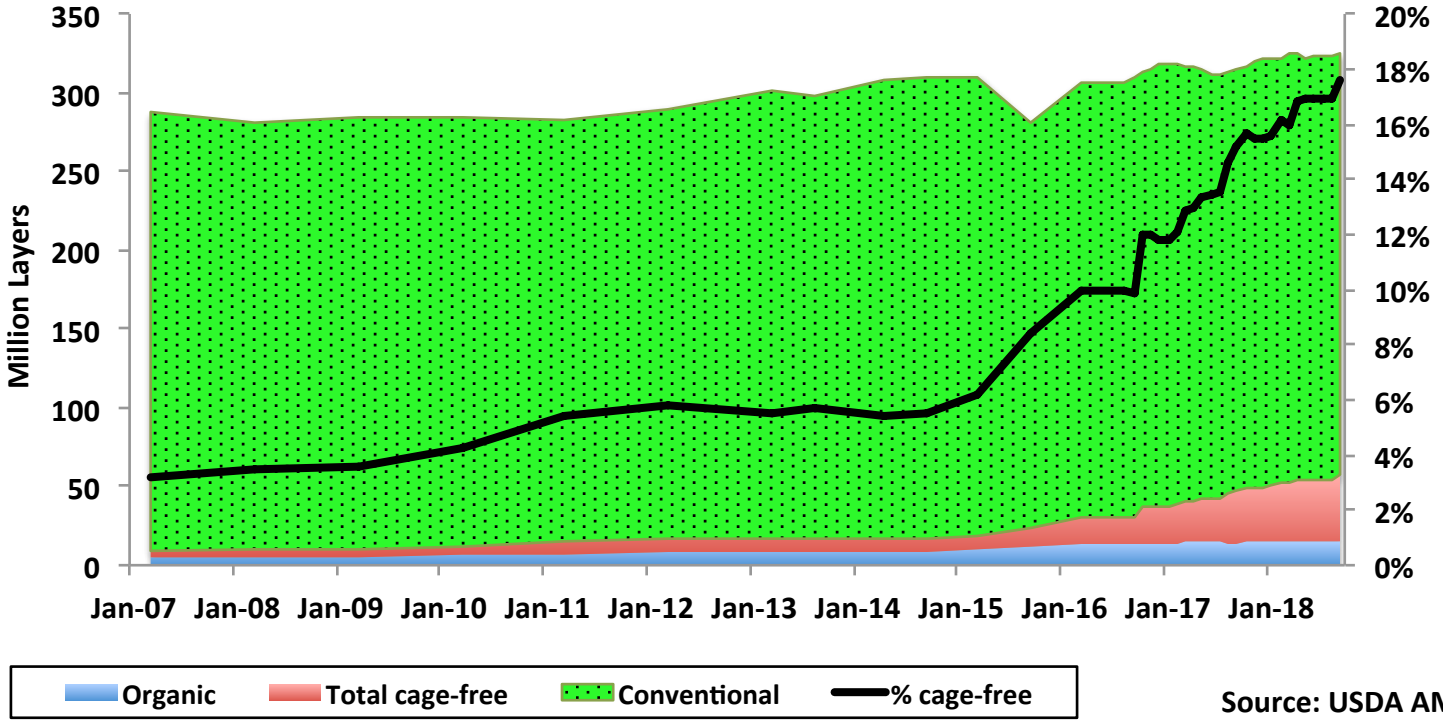
Million Cases Produced	245.515	231.279	247.874	255.895	172.241
% BROKEN	30.7	30.3	30.8	30.1	30.6

PER CAPITA EGG CONSUMPTION BY QUARTER **TABLE 6**

QUARTER	2011	2012	2013	2014	2015	2016	2017	2018*
1	61.3	63.2	64.2	65.6	65.6	67.4	68.5	68.2
2	61.5	62.2	63.3	66.2	63.0	66.3	68.6	69.0
3	62.8	63.3	64.6	67.2	61.5	67.3	69.3	69.1
4	64.3	65.6	66.1	68.5	65.6	70.6	69.9	71.4
Total	249.9	254.3	258.2	267.5	255.8	271.6	276.3	277.7
Change from previous year		4.4	3.9	9.3	-11.7	15.8	4.7	1.4

Source: USDA ERS Livestock and Meat Trade Data. *** Estimates for 2018 (9/2018)**

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 %
	2017	2018	2017	2018	2017	2018	Change (%)	of U.S. Flock
January	23.5	35.7	14.1	14.6	37.6	50.2	34%	15.6%
February	24.4	36.9	14.1	15.0	38.5	51.9	35%	16.2%
March	26.1	36.9	14.5	15.0	40.6	51.9	28%	16.0%
April	26.6	39.0	14.6	15.6	41.2	54.5	32%	16.8%
May	27.3	39.0	14.6	15.6	41.9	54.5	30%	16.9%
June	27.3	39.1	14.6	15.6	41.9	54.7	31%	16.9%
July	27.5	39.1	14.6	15.6	42.1	54.7	30%	16.9%
August	31.7	39.1	14.1	15.6	45.8	54.7	19%	16.9%
September	33.5	41.4	14.3	15.7	47.8	57.1	19%	17.6%
October	34.7		14.7		49.4			
November	34.7		14.7		49.4			
December	35.0		14.7		49.7			

Source: USDA AMS (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 2018 (Thousand cases- 30 doz) **TABLE 8**

Month \ To	North America	Central America	Caribbean	European Union-28	East Asia	Southeast Asia	Middle East	Total 2018	Total 2017	% of U.S. Production
Jan	111.0	0.2	18.8	0.0	125.8	0.0	24.1	284.1	193.1	1.30
Feb	84.2	0.2	26.9	0.0	91.3	0.0	24.3	231.7	273.9	1.18
Mar	111.2	0.1	33.8	0.0	91.8	0.0	4.4	246.7	253.5	1.12
Apr	183.3	0.0	16.8	0.0	107.3	0.0	0.0	311.9	270.7	1.47
May	190.1	0.1	11.6	0.0	117.3	0.0	0.1	324.1	273.6	1.47
Jun	101.0	0.0	11.8	0.0	156.4	0.0	2.7	273.5	252.2	1.28
Jul	116.1	0.0	11.8	0.0	120.0	0.0	19.2	273.3	292.9	1.25
Aug	181.4	0.0	10.0	0.0	138.4	0.0	39.7	373.8	340.9	1.69
Sep									396.8	
Oct									382.4	
Nov									285.2	
Dec									375.9	
8 Mo. Total	1,078.3	0.7	141.5	0.0	948.4	0.0	114.5	2,319.2	2,150.8	1.34
%	46.5	0.0	6.1	0.0	40.9	0.0	4.9			

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

EXPORT OF EGG PRODUCTS IN 2018 (EQUIVALENT: thousand cases- 30 doz) **TABLE 9**

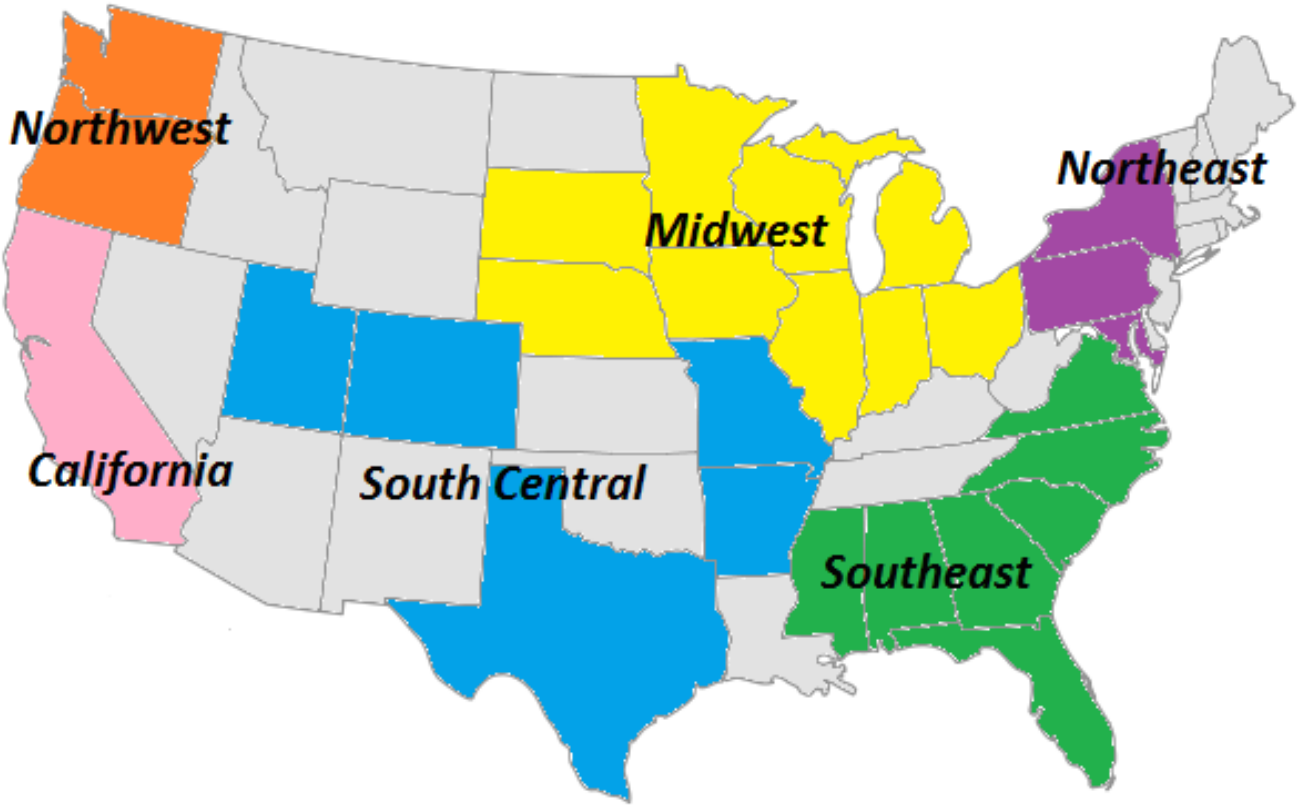
Month \ To	North America	Central America	Caribbean	European Union-28	East Asia	Southeast Asia	Middle East	Total 2018	Total 2017	% of U.S. Production
Jan	92.3	10.5	7.1	64.7	230.2	21.0	8.9	442.1	334.0	2.03
Feb	145.7	3.8	5.4	63.1	223.9	6.2	5.2	478.5	387.5	2.43
Mar	86.7	12.4	11.1	26.5	235.1	19.6	5.5	432.2	501.7	1.96
Apr	104.9	6.1	6.6	30.7	230.4	27.0	18.7	462.8	464.3	2.17
May	104.7	10.0	8.7	24.2	226.7	22.4	7.2	417.7	438.8	1.90
Jun	91.2	5.6	10.2	29.8	172.1	8.1	5.2	333.9	421.3	1.57
Jul	108.9	10.0	4.3	48.6	145.6	14.9	0.4	346.2	363.9	1.58
Aug	97.3	15.8	6.0	38.4	139.1	10.4	4.9	323.1	465.2	1.46
Sep									434.7	
Oct									496.2	
Nov									562.5	
Dec									398.7	
8 Mo. Total	831.7	74.2	59.6	326.0	1,603.1	129.7	56.1	3,236.6	3,376.5	1.89
%	25.7	2.3	1.8	10.1	49.5	4.0	1.7			

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 - 2018 **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	21,783	284.1	1.30	442.1	2.03	726.2	3.33
Feb	19,722	231.7	1.18	478.5	2.43	710.3	3.60
Mar	22,033	246.7	1.12	432.2	1.96	678.8	3.08
Apr	21,292	311.9	1.47	462.8	2.17	774.7	3.64
May	22,035	324.1	1.47	417.7	1.90	741.8	3.37
Jun	21,307	273.5	1.28	333.9	1.57	607.5	2.85
Jul	21,946	273.3	1.25	346.2	1.58	619.6	2.82
Aug	22,124	373.8	1.69	323.1	1.46	696.9	3.15
Sep							
Oct							
Nov							
Dec							
Total/Av	172,241	2,319.2	1.35	3,236.6	1.88	5,555.7	3.23

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) - 2018 **TABLE 11**

month	Northeast	Southeast	South Central	Midwest	Northwest	California	U.S. Total
Jan	34.0	30.0	38.1	161.6	9.3	13.7	309.1
Feb	33.9	29.7	38.6	163.0	9.2	13.6	307.8
Mar	33.6	29.9	38.8	165.0	8.8	13.7	307.2
Apr	33.1	30.1	38.1	165.8	8.8	13.5	306.4
May	33.1	29.7	37.6	166.0	8.9	13.6	304.0
Jun	33.1	29.0	38.0	165.6	9.1	13.8	302.7
Jul	33.0	28.2	38.2	166.1	9.0	14.0	303.0
Aug	33.0	27.6	38.0	167.3	8.9	13.9	304.4
Sep							
Oct							
Nov							
Dec							
8 Month Avg.	33.3	29.3	38.2	165.0	9.0	13.7	305.6
% of total	10.9	9.6	12.5	54.0	2.9	4.5	

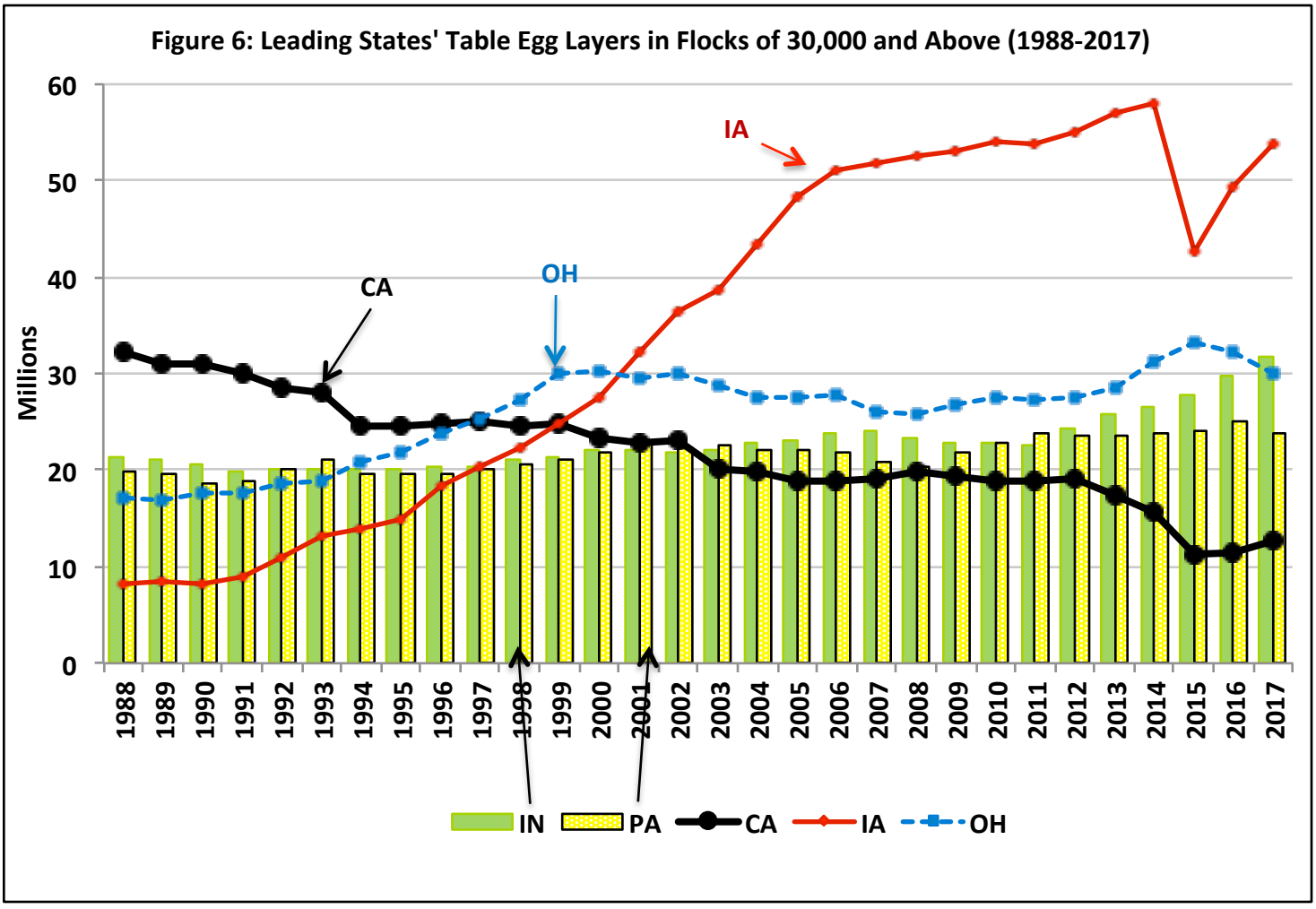
Source: USDA NASS Chickens and Eggs

TABLE EGG LAYERS IN LEADING STATES - (LAYERS IN 30,000+ HEN FLOCKS) - 2018 **TABLE 12**

month	IA	OH	IN	PA	CA	TX	U.S.
Aug-2017	53.68	29.90	31.94	23.64	12.89	17.29	304.42
			(Millions)				
Jan-2018	54.18	30.91	31.23	24.92	13.72	17.72	311.66
Feb-2018	54.62	31.32	31.05	24.93	13.61	17.78	312.94
Mar-2018	55.31	31.47	31.30	24.98	13.68	17.78	314.80
Apr-2018	55.66	31.52	31.65	24.95	13.52	17.80	314.35
May-2018	56.05	31.25	31.79	24.98	13.59	17.81	313.79
Jun-2018	55.83	30.91	31.78	25.13	13.84	17.90	313.72
Jul-2018	56.11	30.93	31.83	25.11	13.97	17.90	313.42
Aug-2018	56.40	31.26	31.90	25.22	13.94	17.72	314.06
Sep-2018							
Oct-2018							
Nov-2018							
Dec-2018							
8 Month Avg.	**55.52**	**31.20**	**31.56**	**25.03**	**13.73**	**17.80**	**313.59**

Source: USDA NASS Chickens and Eggs

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

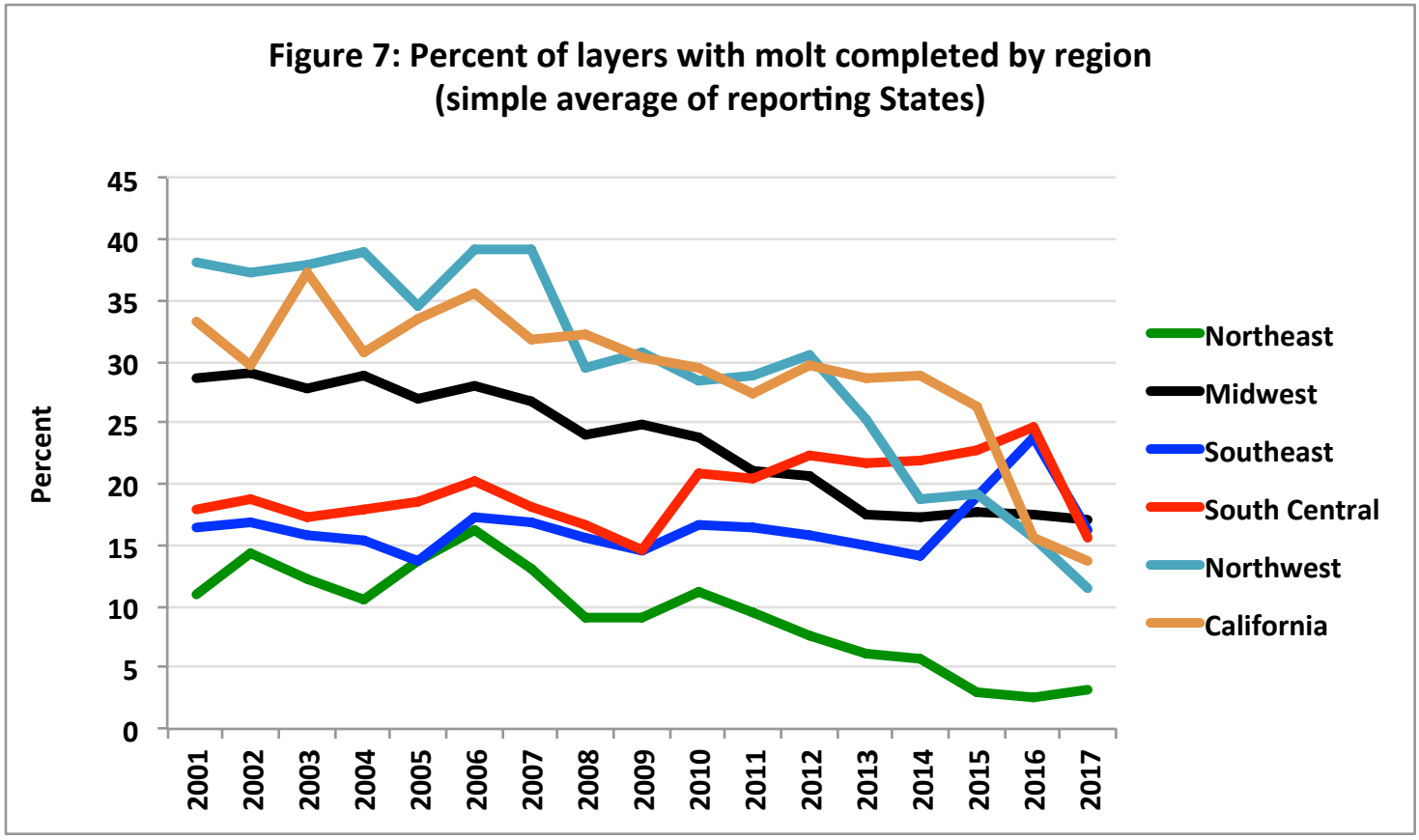


TOTAL MOLT (in-molt plus post-molt) BY REGION (Simple average of reporting States, %) - 2018 **TABLE 13**

month	Northeast	Southeast	South Central	Midwest	Northwest	California	U.S. Avg
Jan	3.7	16.9	15.1	18.4	12.0	15.0	18.2
Feb	3.2	17.9	17.6	18.6	13.0	15.0	18.7
Mar	3.0	15.8	14.9	17.6	13.3	12.5	17.7
Apr	3.3	14.8	13.9	16.4	10.5	12.0	17.1
May	4.2	15.7	13.7	16.9	8.8	14.0	17.4
Jun	3.2	16.0	15.4	17.1	10.5	13.5	17.8
Jul	2.7	16.4	16.0	16.4	12.0	13.5	17.5
Aug	2.5	16.8	17.0	15.7	13.0	14.0	17.2
Sep	2.3	15.8	17.9	15.9	10.5	14.0	17.0
Oct							
Nov							
Dec							
9 Month Avg.	**3.1**	**16.2**	**15.7**	**17.0**	**11.5**	**13.7**	**17.6**
year 2016 avg.	3.2	26.5	27.2	20.2	18.8	18.5	20.8

Source: USDA NASS Chickens and Eggs

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



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

month	2013	2014	2015	2016	2017	2018	2019
Jan	2.579	2.540	2.682	3.081	2.581	2.741	2.206
Feb	2.613	2.536	2.689	3.074	2.598	2.768	2.078
Mar	2.630	2.472	2.605	2.997	2.742	2.604	2.122
Apr	2.588	2.530	2.718	2.840	2.705	2.613	
May	2.515	2.497	2.917	2.805	2.699	2.498	
Jun	2.537	2.439	2.892	2.866	2.747	2.389	
Jul	2.436	2.608	2.797	2.836	2.696	2.498	
Aug	2.515	2.535	2.797	2.725	2.764	2.506	
Sep	2.503	2.553	2.857	2.615	2.755	2.482	
Oct	2.468	2.610	2.958	2.446	2.782	2.477	
Nov	2.555	2.619	2.937	2.566	2.685	2.450	
Dec	2.476	2.664	2.947	2.650	2.659	2.360	
3 month avg.	2.607	2.516	2.659	3.051	2.640	2.705	2.135
12 month avg.	2.535	2.550	2.816	2.792	2.701	2.532	

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	2014	2015	2016	2017	2018	2019	2014 to '18 month avg.
Jan	17.5	17.9	21.3	19.5	20.5	24.1	19.3
Feb	17.8	18.4	21.5	18.9	17.8		18.9
Mar	19.2	20.2	22.7	19.6	23.1		20.9
Apr	18.9	16.5	20.7	18.8	21.7		19.3
May	18.6	18.2	21.1	20.6	20.7		19.8
Jun	19.4	18.0	20.9	19.6	22.8		20.1
Jul	20.6	20.7	27.1	24.2	25.1		23.5
Aug	20.2	21.4	25.7	25.0	26.2		23.7
Sep	20.9	21.4	23.1	23.5	26.6		23.1
Oct	22.4	21.8	25.9	23.9	27.1		24.2
Nov	20.0	21.3	26.0	22.0	24.1		22.7
Dec	19.2	19.3	18.8	18.7	22.9		19.8
1 month avg.	17.5	17.9	21.3	19.5	20.5	24.1	19.3
Annual Avg.	19.5	19.6	22.9	21.2	23.2		21.3
Total	234.6	235.1	274.7	254.4	278.7		255.5

Source: USDA NASS Chickens and Eggs % Change to date 17.48

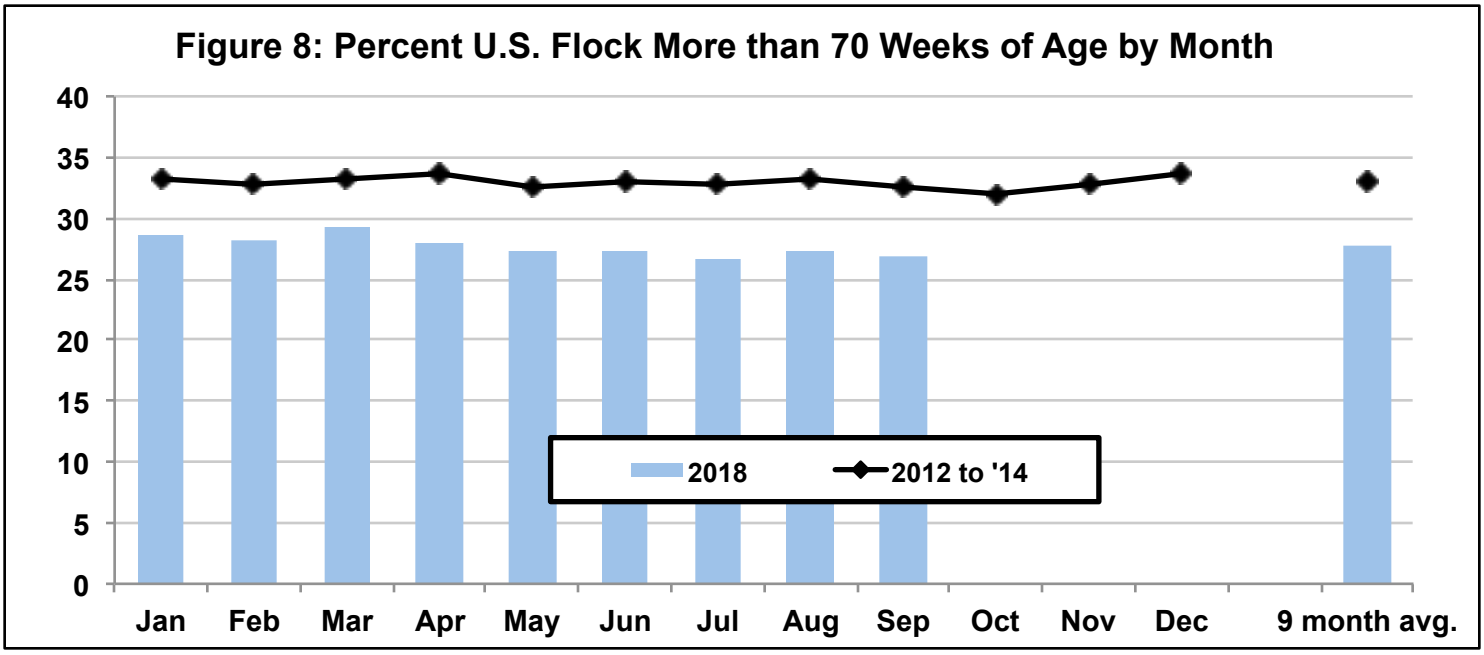
Note: The number of pullets to be housed was reduced by 6 million based on the number reported as lost to avian influenza. We assumed the reduction as evenly spread during the period between May and September 2015 (assuming that the ages of affected birds was evenly distributed).

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)						
	2013	2014	2015	2016	2017	2018	2012 to '14
Jan	34.1	33.1	32.2		22.5	28.6	33.3
Feb	34.1	31.8	31.1		23.1	28.3	32.9
Mar	34.9	31.8	32.0		23.5	29.3	33.3
Apr	34.9	32.5			23.9	27.9	33.6
May	33.5	32.2			24.1	27.4	32.7
Jun	33.8	32.2			23.8	27.2	33.0
Jul	33.7	32.4			25.1	26.7	32.9
Aug	33.7	33.4			26.5	27.3	33.2
Sep	32.7	32.5			26.4	26.9	32.5
Oct	31.4	32.1			27.4		32.0
Nov	32.6	31.5		22.7	28.8		32.9
Dec	33.2	32.8		21.8	28.4		33.6
9 month avg.	33.9	32.4			24.3	27.7	33.0
12 month avg.	33.6	32.4	31.7		25.3		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:

1. 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 * Price 12-18_ Jan + 0.00149 * Price 12-18_ Feb + 0.00439 * Price 12-18_ Mar + 0.00203 * Price 12-18_ Apr + 0.00465 * Price 12-18_ May + 0.00601 * Price 12-18_ Jun + 0.0115 * Price 12-18_ Jul + 0.01208 * Price 12-18_ Aug + 0.01238 * Price 12-18_ Sep + 0.01298 * Price 12-18_ Oct + 0.00766 * Price 12-18_ Nov + 0.00231 * Price 12-18_ Dec - 0.0004 * "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

2. 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 * Added /Beg. count + 0.00347 * Jan - 0.0027 * Feb - 0.00078 * Mar + 0.00739 * Apr + 0.00357 * May + 0.0015 * Jun + 0.00063 * Jul - 0.00443 * Aug - 0.00214 * Sep - 0.00555 * Oct - 0.011 * Nov + 0.02112 * Shock _ Sep + 0.00270 * "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	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	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
322.0	320.8	324.6	324.5	323.7	323.4	323.5	322.8	324.8	327.8	331.9	336.8

Project. Year end: **Dec, 2018 - 337.6**

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

Date calculated: 10/1/2018

2018 Bird Flow by Month

Table 18

	ACTUAL FLOCK (million birds)			
month	Beginning Count	Pullets added [1]	Slaughter, Died & Missing	Ending count
Jan-18	322.0	20.5	21.7	320.8
Feb-18	320.8	17.8	14.0	324.6
Mar-18	324.6	23.1	23.2	324.5
Apr-18	324.5	21.7	22.5	323.7
May-18	323.7	20.7	21.0	323.4
Jun-18	323.4	22.8	22.7	323.5
Jul-18	323.5	25.1	25.8	322.8
Aug-18	322.8	26.2	24.2	324.8
Sep-18	324.8	26.6		
Oct-18		27.1		
Nov-18		24.1		
Dec-18		22.9		
Jan-19		24.1		
Feb-19				
Mar-19				
Apr-19				
May-19				
Jun-19				
Jul-19				
Aug-19				
Sep-19				
Oct-19				
Nov-19				
Dec-19				

[1] at 5 months of age

Table 19

	PROJECTED FLOCK (million birds)			
month	Beginning Count	Pullets added [1]	Slaughter, Died & Missing	Ending count
Jan-18	322.0	20.5	21.7	320.8
Feb-18	320.8	17.8	14.0	324.6
Mar-18	324.6	23.1	23.2	324.5
Apr-18	324.5	21.7	22.5	323.7
May-18	323.7	20.7	21.0	323.4
Jun-18	323.4	22.8	22.7	323.5
Jul-18	323.5	25.1	25.8	322.8
Aug-18	322.8	26.2	24.2	324.8
Sep-18	324.8	26.6	23.7	327.8
Oct-18	327.8	27.1	23.0	331.9
Nov-18	331.9	24.1	19.2	336.8
Dec-18	336.8	22.9	22.1	337.6
Jan-19	337.6	24.1	25.0	336.7
Feb-19	336.7	20.0	19.2	337.5
Mar-19	337.5	21.7	21.1	338.2
Apr-19	338.2	20.5	23.9	334.8
May-19	334.8	21.7	23.3	333.1
Jun-19	333.1	22.1	22.9	332.3
Jul-19	332.3	24.9	24.5	332.8
Aug-19	332.8			
Sep-19				
Oct-19				
Nov-19				
Dec-19				

[1] 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**

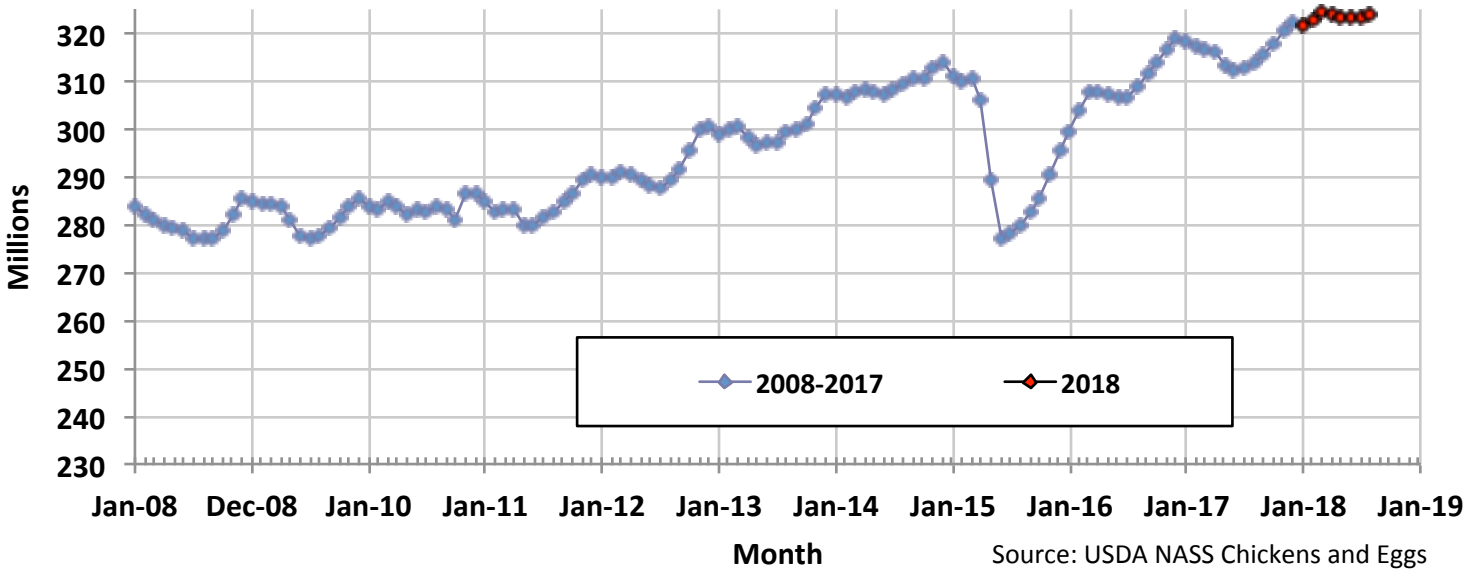
For September 2018

Number of U.S. table egg layers (million) on the 1st 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**	**322.0**										
Feb-17	320.7	**320.3**	**320.8**									
Mar-17	320.1	320.6	**324.3**	**324.6**								
Apr-17	321.6	322.1	325.6	**324.2**	**324.5**							
May-17	319.0	319.5	323.0	322.5	**322.1**	**323.7**						
Jun-17	317.5	318.0	321.3	320.8	321.4	**323.4**	**323.4**					
Jul-17	316.3	317.8	321.0	320.6	321.1	323.9	**323.6**	**323.5**				
Aug-17	316.7	318.2	322.7	322.2	322.7	325.5	325.2	**322.9**	**322.8**			
Sep-17	318.8	319.4	323.9	324.9	326.3	328.1	327.8	326.4	**324.8**			
Oct-17	320.3	320.9	325.5	326.4	329.2	331.0	330.7	329.3	327.8			
Nov-17	323.0	323.6	327.4	328.3	331.1	334.2	333.9	333.5	331.9			
Dec-17	326.3	327.7	331.5	332.5	335.3	338.5	338.9	338.4	336.8			
Jan-18		327.7	331.5	332.4	335.2	338.4	338.9	339.2	337.6			
Feb-18			330.5	330.6	333.4	336.6	337.0	337.3	336.7			
Mar-18				330.5	333.3	336.4	336.9	337.2	337.5			
Apr-18					333.9	336.2	336.6	337.8	338.2			
May-18						332.8	333.2	334.4	334.8			
Jun-18							331.6	332.8	333.1			
Jul-18								332.0	332.3			
Aug-18									332.8			
Sep-18												
Oct-18												
Nov-18												
Dec-18												

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

Figure 9: U.S. Monthly Table-Egg Layers (2008-2018)

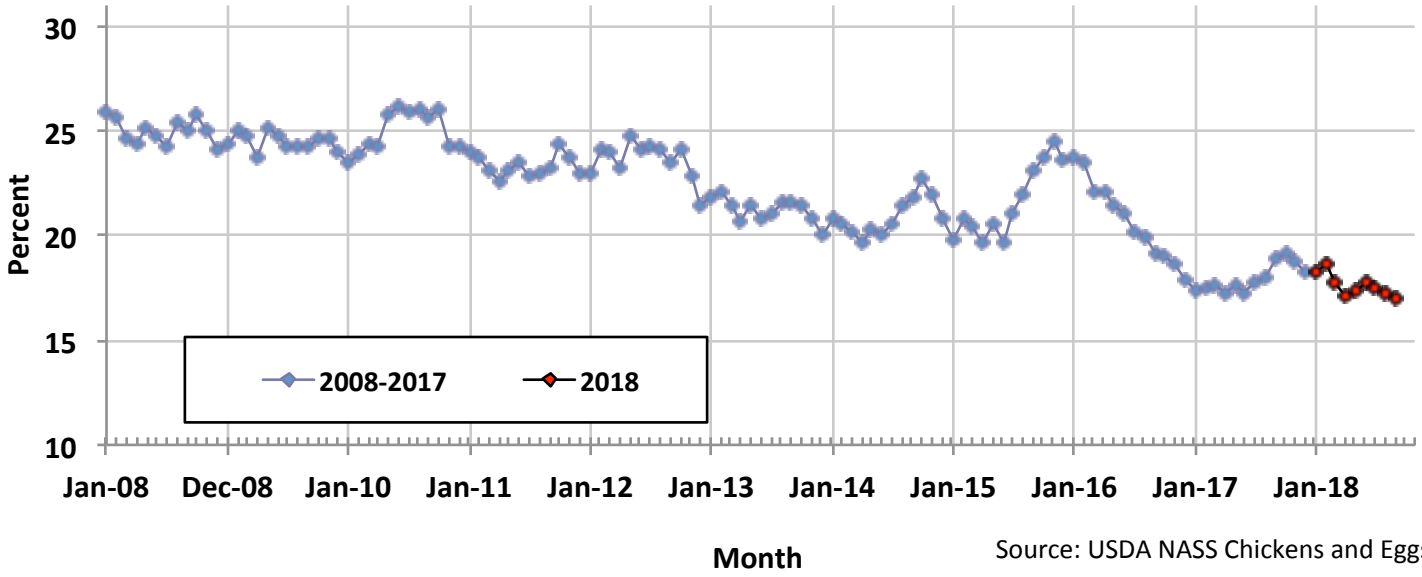


Source: USDA NASS Chickens and Eggs

Figure 10: U.S. Table Eggs per Hundred Hens per Day by Month (2008-2018)

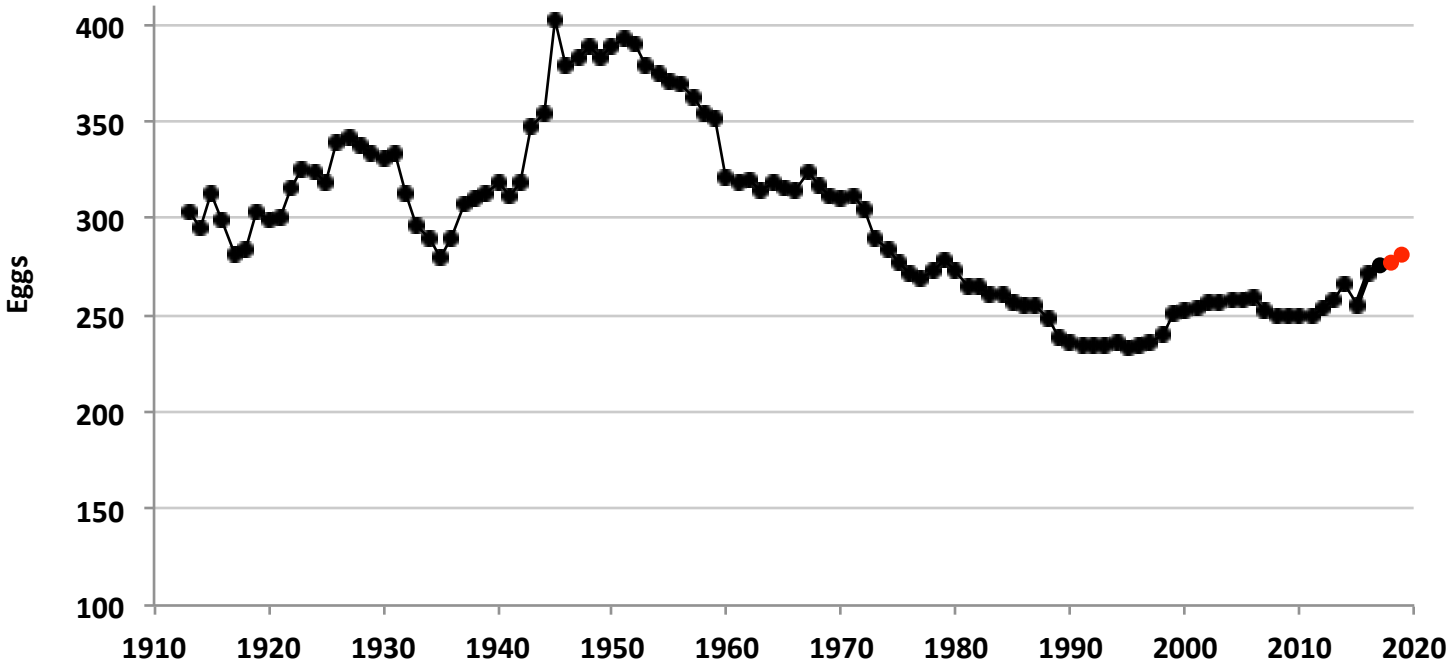


Figure 11: Monthly Percent of U.S. Flock Molted (2008-2018)



Source: USDA NASS Chickens and Eggs

Figure 12: U.S. Per Capita Egg Consumption by Year (1913-2019)



Source: USDA ERS

SUMMARY TO DATE **Table 21**

			2017	2018	% Change
HATCH of EGG-TYPE STRAIGHT RUN (THOUSANDS) (U.S.)	**(Total)**	**Jan to Aug**	48,706	54,660	12.2
TABLE-EGG LAYERS (MILLIONS) (U.S.)	**(Avg.)**	**Jan to Aug**	315.0	323.3	2.6
TABLE EGGS (MILLIONS/MONTH) (U.S.)	**(Avg.)**	**Jan to Aug**	7,658	7,751	1.2
RATE OF LAY (%)	**(Avg.)**	**Jan to Aug**	80.0	78.9	-1.1
U.S. TABLE EGG AVG. CASES/WEEK (THOUSANDS)		**Jan to Aug**	1,765	1,786	1.2
AVG MONTHLY CASES OF EGGS BROKEN (MILLION) (U.S.)		**Jan to Aug**	6.449	6.581	2.1
			2016	**2017**	**Difference**
PERCENT OF U.S. FLOCK IN or POST MOLT	**(Avg.)**	**Jan to Sep**	17.7	17.6	-0.1
AVERAGE PULLETS ADDED/MONTH (MILLIONS) (U.S.)		**Jan to Jan 19'**	20.5	24.1	3.6

Note: U.S. cost of production and egg prices are published in another Egg Industry Center report. Contact Maro Ibarburu at 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	http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1028
USDA NASS Poultry Slaughter	http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1131
USDA NASS Egg Products	http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1057
USDA ERS Livestock and Meat Trade Data.	http://www.ers.usda.gov/data/MeatTrade/BroilerTurkeyMonthly.htm
USDA FAS	http://www.fas.usda.gov/gats/ExpressQuery1.aspx
USDA NASS Cold Storage	http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1034
USDA AMS Poultry Market News and Analysis	http://marketnews.usda.gov/portal/py
USDA AMS Monthly USDA Cage-Free Shell Egg Repor	https://www.ams.usda.gov/mnreports/pymcagefree.pdf

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