U.S. Flock Trends and Projections

July 4, 2019

Egg Industry Center

Compiled by

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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 May hatch (straight-run chicks) was 1.2 higher than May 2018. This projects forward to a 27.4 million pullet placement for October of 2019 which is 0.3 million higher than October of 2018 placement (27.1).

* Current (May average, 2019) U.S. table egg layer number (334.5 million) is 1.8 percent larger than last year's number at this time (328.7 million), and 5.1 million smaller than last month (339.6 million).

* In May, Iowa led the nation with 56.8 million laying hens compared to 34.7 million in Ohio, 33.3 million in Indiana, and 25.5 million in Pennsylvania.

* The June 1st U.S. rate of lay was 81.0% which is 1.7% higher than the June 1st 2018 level. The total number of table eggs produced in May 2019 was 3.6% higher than the May 2018 production.

* The May 2019 number of eggs exported was 4% lower than last year (May 2018) and similar to last month (April 2019). The May exports represented 3.2% of the number of eggs produced.

* Shell eggs broken for products in May 2019 totaled 7.369 million cases, 6.5% more than in May 2018 (6.922 million cases).

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

	2018	2019	% Change
Hatch - Egg-Type Straight Run (thousands) (U.S.)	60,063	60,775	1.2
Table Egg Layers (millions) (U.S.)	328.7	334.5	1.8
Rate of lay (percent)	78.7	80.0	1.3
Molting (June 1, 2019) (percent in + out of a molt)	17.7	15.2	-14.1

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

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Million	285.2	286.8	290.1	298.6	308.2	312.9	297.7	320.0	327.9	331.6	342.0*

* preliminary value

SPECIAL NOTE:

In March 2019, USDA updated the number of U.S. table egg layers and egg prodution. The adjustment goes back to January 2017.

USDA also stopped reporting stats for Texas, Mississippi, Florida and Arkansas. As a consequence, EIC decided to stop reporting stats by region and replaced these tables with shell egg and egg products inventory and consumption.

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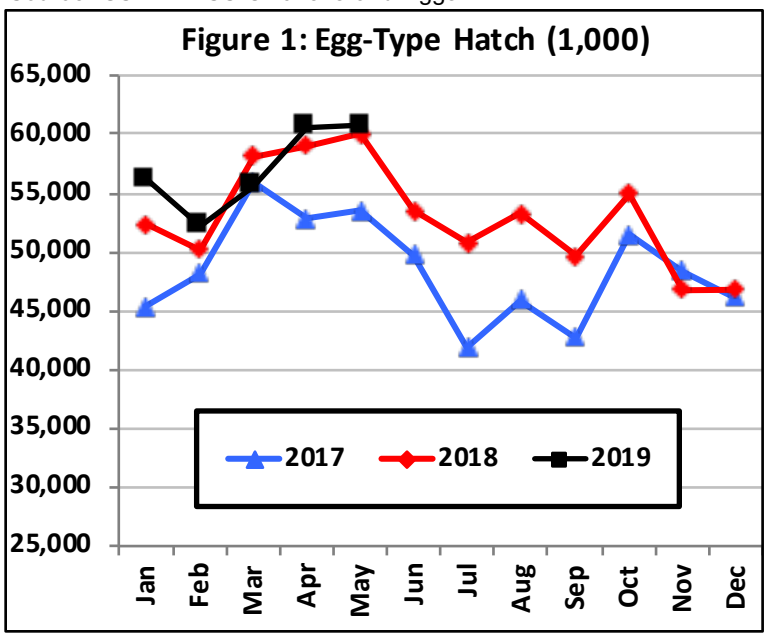
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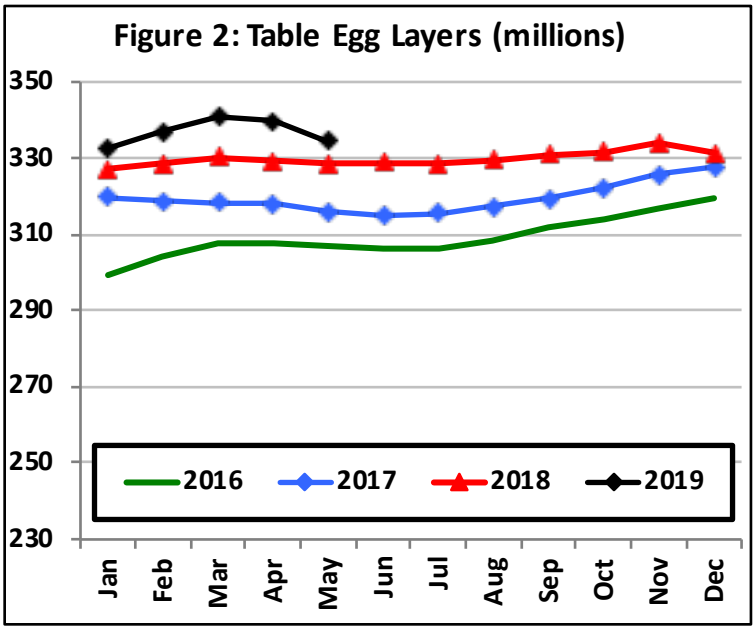


EGG TYPE: EGGS IN INCUBATORS (on the 1st of the month) and STRAIGHT RUN HATCH (U.S.) **TABLE 1**

EGG-TYPE Eggs in Incubators (thousands)				EGG-TYPE Straight Run Hatch (thousands)				
month	2018	2019	Change (%)	month	2017	2018	2019	Change %
Jan	46,750	52,153	11.6	Jan	45,367	52,313	56,219	7.5
Feb	51,216	55,001	7.4	Feb	48,127	50,148	52,182	4.1
Mar	56,120	53,586	-4.5	Mar	55,919	58,147	55,658	-4.3
Apr	55,990	58,422	4.3	Apr	52,762	58,986	60,668	2.9
May	56,063	55,489	-1.0	May	53,506	60,063	60,775	1.2
Jun	50,523	51,596	2.1	Jun	49,722	53,486		
Jul	46,390			Jul	41,862	50,752		
Aug	46,678			Aug	45,861	53,207		
Sep	50,036			Sep	42,725	49,610		
Oct	51,647			Oct	51,495	54,960		
Nov	45,096			Nov	48,344	46,844		
Dec	50,858			Dec	46,080	46,779		
6 Month Avg.	52,777	54,375	3.0	**5 Month Avg.**	51,136	55,931	57,100	2.1
6 Month Total	316,662	326,247		**5 Month Total**	255,681	279,657	285,502	
12 Month Total	560,591			**12 Month Total**	581,770	635,295		

Source: USDA NASS Chickens and Eggs





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

	TOTAL Table Egg Layers						% Change with respect to	
month	2014	2015	2016	2017	2018	2019	last year	2014-2018
Jan	307.2	311.2	299.3	319.7	327.2	332.6	1.7	6.3
Feb	306.7	310.0	304.0	318.7	328.6	336.8	2.5	7.4
Mar	307.7	310.2	307.4	318.4	330.3	340.9	3.2	8.3
Apr	308.3	305.9	307.4	317.9	329.3	339.6	3.1	8.2
May	307.6	289.3	307.0	315.9	328.7	334.5	1.8	8.0
Jun	307.0	276.9	306.5	314.9	328.8			
Jul	308.2	278.1	306.4	315.5	328.6			
Aug	309.6	279.7	308.6	317.3	329.4			
Sep	310.4	282.4	311.7	319.4	330.8			
Oct	310.7	285.6	313.6	322.2	331.6			
Nov	312.7	290.2	316.7	325.8	334.0			
Dec	313.8	295.6	319.5	327.7	331.3			
5 Month Avg.	307.5	305.3	305.0	318.1	328.8	336.9	2.5	7.6
Annual Avg.	309.2	292.9	309.0	319.5	329.9			

Source: USDA NASS Chickens and Eggs

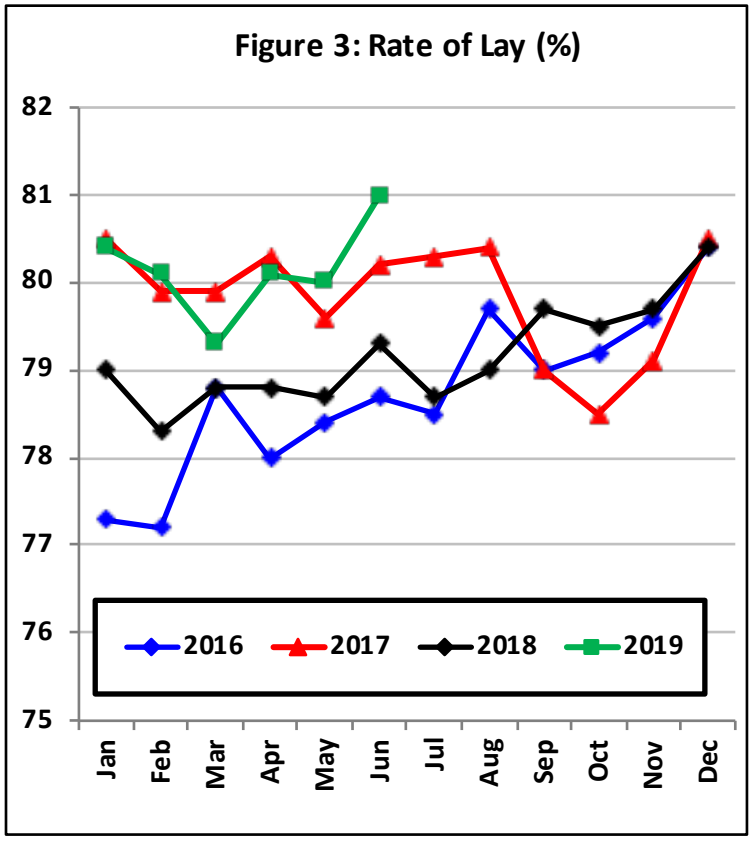
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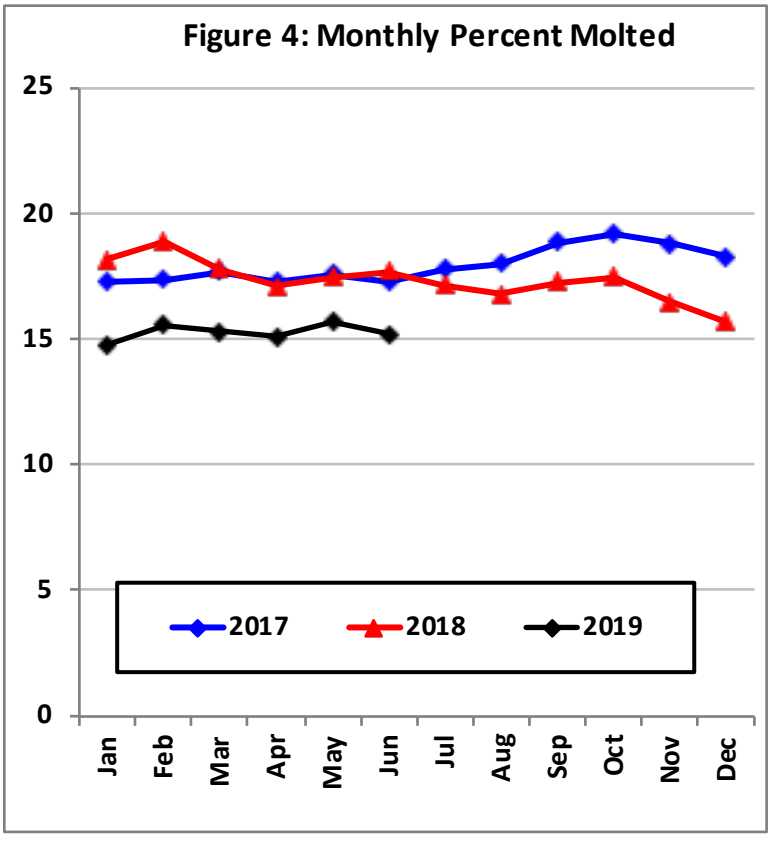
U.S. TABLE EGGS, AND RATE OF LAY on the 1st of EACH MONTH (ALL STATES) **TABLE 3**

month	Table Eggs - human consumption (millions) 2015	2016	2017	2018	2019	Change (%)	Rate of Lay (Table) 2018	2019
Jan	7,545	7,168	7,948	7,983	8,275	3.7	79.0	80.4
Feb	6,726	6,878	7,130	7,227	7,517	4.0	78.3	80.1
Mar	7,566	7,475	7,908	8,070	8,424	4.4	78.8	79.3
Apr	7,252	7,213	7,627	7,785	8,160	4.8	78.8	80.1
May	6,996	7,479	7,828	8,056	8,348	3.6	78.7	80.0
Jun	6,464	7,228	7,583	7,798			79.3	81.0
Jul	6,698	7,514	7,863	8,036			78.7	
Aug	6,729	7,597	7,843	8,106			79.0	
Sep	6,544	7,402	7,549	7,899			79.7	
Oct	6,837	7,724	7,873	8,185			79.5	
Nov	6,778	7,602	7,800	8,024			79.7	
Dec	7,125	7,969	8,106	8,259			80.4	
YTD Avg.	7,217	7,243	7,688	7,824	8,145	4.1	78.8	80.2
Annual Avg.	6,938	7,437	7,755	7,952			79.2	
Total	83,260	89,249	93,056	95,428				

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	2018	2019	2018	2019	2017	2018	2019	Change
Jan	1.8	1.5	16.4	13.3	17.3	18.2	14.8	-3.4
Feb	2.9	2.6	16.0	13.0	17.4	18.9	15.6	-3.3
Mar	1.8	1.5	16.0	13.8	17.7	17.8	15.3	-2.5
Apr	1.7	1.3	15.4	13.8	17.3	17.1	15.1	-2.0
May	3.1	2.5	14.4	13.2	17.6	17.5	15.7	-1.8
Jun	3.0	1.9	14.7	13.3	17.3	17.7	15.2	-2.5
Jul	2.2		15.0		17.8	17.2		
Aug	2.2		14.6		18.0	16.8		
Sep	2.7		14.6		18.9	17.3		
Oct	2.3		15.2		19.2	17.5		
Nov	1.6		14.9		18.8	16.5		
Dec	1.1		14.6		18.3	15.7		
6 Month Avg.	2.4	1.9	15.5	13.4	17.4	17.9	15.3	-2.6
12 Month Avg.	2.2		15.2		18.0	17.4		

Source: USDA NASS Chickens and Eggs

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

							% Change with respect to	
month	2014	2015	2016	2017	2018	2019	last year	2014-2018
Jan	5.865	6.634	5.639	6.540	6.482	7.018	8.3	12.6
Feb	5.325	5.746	5.484	6.192	5.904	6.360	7.7	11.0
Mar	6.086	6.030	6.308	6.601	6.218	6.847	10.1	9.6
Apr	6.205	6.061	6.255	6.126	6.403	6.870	7.3	10.6
May	6.514	5.533	6.576	6.547	6.922	7.369	6.5	14.8
Jun	6.532	6.408	6.679	6.604	6.891			
Jul	6.618	5.641	6.474	6.376	6.770			
Aug	6.596	5.589	6.804	6.603	7.110			
Sep	6.566	5.583	6.539	6.126	6.793			
Oct	6.731	5.814	6.636	6.583	7.027			
Nov	6.086	5.350	6.499	6.296	6.593			
Dec	6.281	5.749	6.498	6.306	6.854			
5 Month Avg.	5.999	6.001	6.052	6.401	6.386	6.893	7.9	11.8
5 Month Total	29.996	30.003	30.262	32.006	31.928	34.463		
12 Month Total	75.405	70.138	76.391	76.901	79.965			

Source: USDA NASS Egg products - monthly

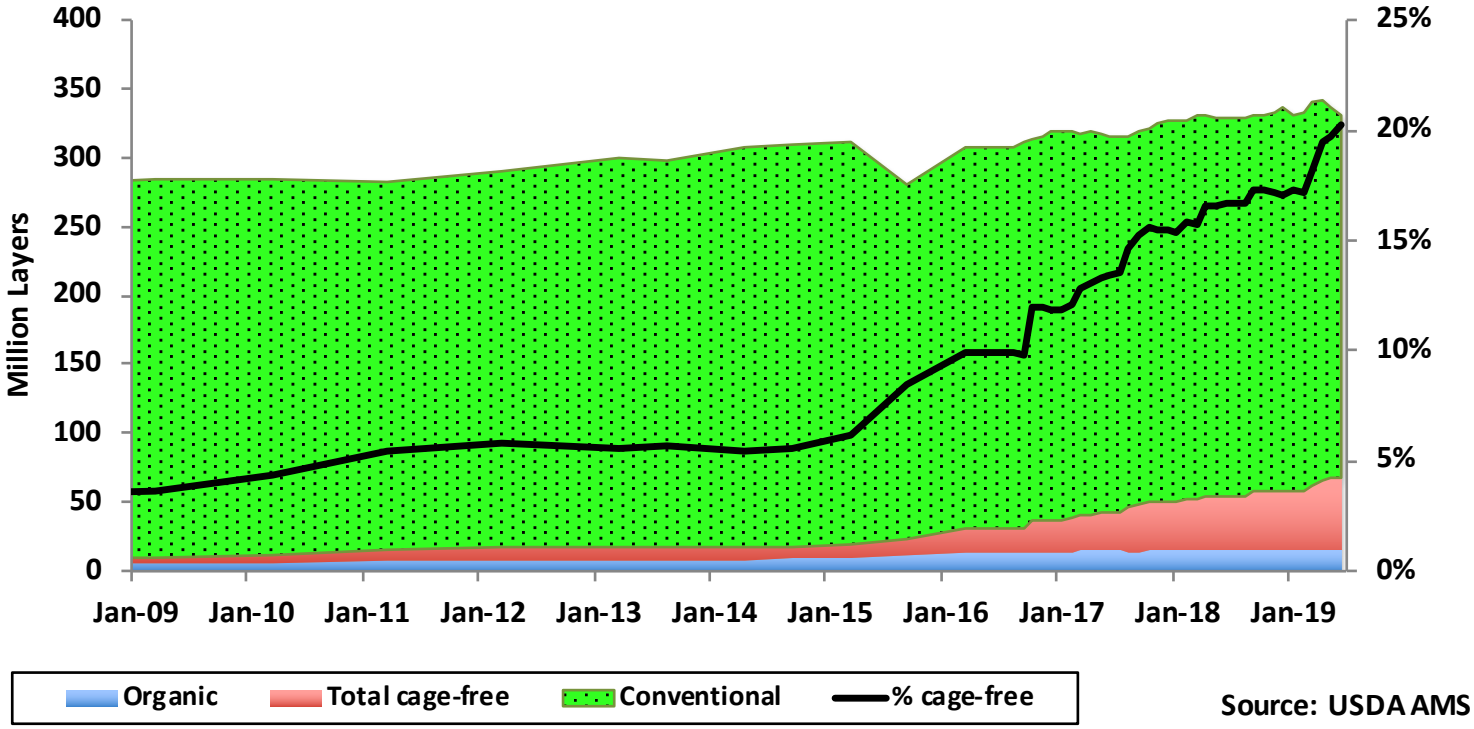
Million Cases Produced	231.279	247.915	258.489	265.079	113.121
% BROKEN	30.3	30.8	29.8	30.2	30.5

CAGE-FREE LAYERS (MILLIONS) **TABLE 6**

	Non-Organic Cage-Free		Certified Organic		TOTAL Cage-Free Layers			Cage-Free %
	2018	2019	2018	2019	2018	2019	Change (%)	of U.S. Flock
January	35.7	41.5	14.6	15.7	50.2	57.2	14%	17.2%
February	36.9	41.6	15.0	15.7	51.9	57.3	10%	17.2%
March	36.9	46.8	15.0	15.0	51.9	61.9	19%	18.2%
April	39.0	50.7	15.6	15.7	54.5	66.4	22%	19.4%
May	39.0	50.9	15.6	15.8	54.5	66.7	22%	19.8%
June	39.1	51.3	15.6	15.8	54.7	67.1	23%	20.2%
July	39.1		15.6		54.7			
August	39.1		15.6		54.7			
September	41.4		15.7		57.1			
October	41.5		15.7		57.2			
November	41.5		15.7		57.2			
December	41.5		15.7		57.2			
6 Month Avg.	37.7	47.1	15.2	15.6	53.0	62.7	18%	18.7%
12 Month Avg.	39.2		15.4		54.6			

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

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



Source: USDA AMS

EXPORT OF TABLE EGGS IN THE SHELL IN 2019 (Thousand cases- 30 doz) **TABLE 7**

Month \ To	North America	Central America	Caribbean	European Union-28	East Asia	Southeast Asia	Middle East	Total 2019	Total 2018	% of U.S. Production
Jan	108.7	0.0	16.4	0.0	102.8	0.0	14.5	244.8	284.1	1.07
Feb	50.2	0.0	20.2	0.0	94.5	0.0	7.5	173.9	231.7	0.83
Mar	199.1	0.0	18.1	0.2	155.5	0.1	9.7	386.5	246.7	1.65
Apr	249.3	0.8	14.7	0.2	129.8	0.0	5.3	404.5	311.9	1.78
May	213.4	0.0	10.2	0.0	180.7	0.0	3.0	411.3	324.1	1.77
Jun									273.5	
Jul									273.3	
Aug									373.8	
Sep									363.2	
Oct									471.1	
Nov									314.4	
Dec									352.6	
5 Mo. Total	820.8	0.8	79.6	0.5	663.4	0.1	40.0	1,621.0	1,398.5	1.42
%	50.6	0.0	4.9	0.0	40.9	0.0	2.5			

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

EXPORT OF EGG PRODUCTS IN 2019 (EQUIVALENT: thousand cases- 30 doz) **TABLE 8**

Month \ To	North America	Central America	Caribbean	European Union-28	East Asia	Southeast Asia	Middle East	Total 2019	Total 2018	% of U.S. Production
Jan	135.7	14.2	10.7	11.1	105.5	8.7	4.0	297.5	471.5	1.29
Feb	136.0	2.3	16.5	18.5	62.2	23.2	3.8	270.9	511.4	1.30
Mar	176.3	5.9	10.3	20.2	56.4	2.2	7.1	283.0	461.0	1.21
Apr	160.3	5.1	24.8	20.3	80.7	24.6	10.4	333.3	493.7	1.47
May	137.8	8.9	7.7	18.6	120.1	9.3	5.0	326.5	445.8	1.41
Jun									354.6	
Jul									370.8	
Aug									346.3	
Sep									337.6	
Oct									306.0	
Nov									329.0	
Dec									310.8	
5 Mo. Total	746.0	36.5	70.1	88.7	424.9	68.0	30.4	1,511.2	2,383.5	1.34
%	49.4	2.4	4.6	5.9	28.1	4.5	2.0			

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 - 2019 **TABLE 9**

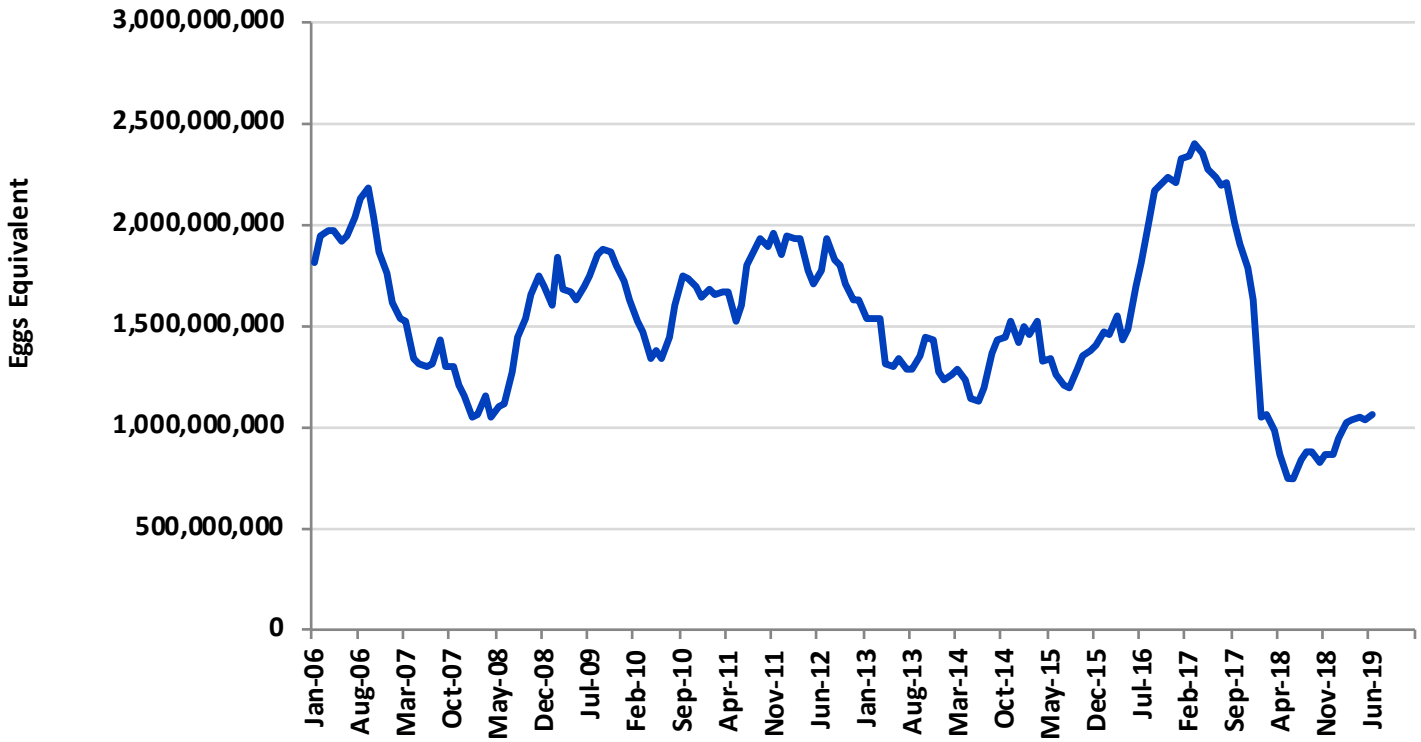
	Table Eggs Produced	Shell Eggs Exported		Egg Products Exported		Total Exported	
	(000) Cases	(000) Cases	% of U.S.	(000) Cases	% of U.S.	(000) Cases	% of U.S.
Jan	22,987	244.8	1.07	297.5	1.29	542.3	2.36
Feb	20,879	173.9	0.83	270.9	1.30	444.7	2.13
Mar	23,401	386.5	1.65	283.0	1.21	669.6	2.86
Apr	22,667	404.5	1.78	333.3	1.47	737.8	3.26
May	23,188	411.3	1.77	326.5	1.41	737.8	3.18
Jun							
Jul							
Aug							
Sep							
Oct							
Nov							
Dec							
Total/Av	113,121	1,621.0	1.43	1,511.2	1.34	3,132.2	2.77

Egg Inventory at the Beginning of the Month **TABLE 10**

	Shell Eggs (eggs)			19 - 18	Egg Products (eggs equivalent)			19 - 18
month	2017	2018	2019	% Change	2017	2018	2019	% Change
JAN	615,852,000	588,888,000	637,344,000	8%	1,706,486,870	1,047,558,765	942,881,484	-10%
FEB	586,944,000	527,652,000	547,956,000	4%	1,750,618,034	1,057,913,844	1,029,023,582	-3%
MAR	591,408,000	574,560,000	615,672,000	7%	1,808,924,515	984,399,906	1,037,123,073	5%
APR	599,292,000	557,604,000	725,364,000	30%	1,750,485,213	864,324,599	1,049,273,001	21%
MAY	567,792,000	613,836,000	705,240,000	15%	1,710,453,779	745,236,648	1,031,717,861	38%
JUN	613,260,000	625,140,000	666,000,000	7%	1,626,891,671	744,536,232	1,059,238,852	42%
JUL	554,688,000	576,972,000			1,643,193,127	835,816,631		
AUG	574,236,000	613,548,000			1,627,451,130	871,527,787		
SEP	520,488,000	619,488,000			1,486,102,862	882,200,742		
OCT	545,832,000	630,000,000			1,352,616,090	819,763,724		
NOV	573,012,000	643,176,000			1,215,292,803	858,254,954		
DEC	566,532,000	626,544,000			1,064,243,564	870,841,984		
6 Month Avg.	595,758,000	581,280,000	649,596,000	12%	1,725,643,347	907,328,332	1,024,876,309	13%
12 Month Avg.	575,778,000	599,784,000			1,561,896,638	881,864,651		

Asssumes: 12.5% drying yield for drying egg whites, 46.3% drying yield for drying egg yolks, 25% drying yield for drying whole egg, and 48.84 grams of edible egg per egg broken for further processing

Figure 6: Total inventory of eggs (shell + egg products)



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CONSUMPTION of EGGS per PERSON **TABLE 11**

	Shell Eggs (eggs/person)			19 - 18	Egg Products (eggs/person)			19 - 18
month	2017	2018	2019	Change	2017	2018	2019	Change
JAN	17.1	17.0	17.3	0.3	6.9	6.6	7.2	0.5
FEB	14.8	15.4	15.8	0.4	6.3	6.2	6.7	0.4
MAR	16.8	17.6	17.7	0.1	7.1	6.8	7.2	0.4
APR	16.4	16.4	17.0	0.6	6.5	6.9	7.3	0.3
MAY	16.6	16.7	17.2	0.5	7.1	7.2	7.7	0.5
JUN	15.8	16.1			6.9	7.0		
JUL	16.9	16.9			6.8	7.0		
AUG	16.5	16.7			7.3	7.5		
SEP	16.1	16.4			6.7	7.3		
OCT	16.6	17.0			7.1	7.3		
NOV	16.7	17.0			6.8	6.9		
DEC	17.5	17.3			6.6	7.0		
5 Month Sum	81.7	83.1	85.0	1.8	33.9	33.8	36.0	2.2
12 Month Sum	197.9	200.4			82.0	83.7		

USDA ERS is projecting a 7.5 eggs/person increase in total consumption for 2019 with respect to 2018

Figure 7: Consumption of shell eggs and egg products 12-month running sum (eggs/person)

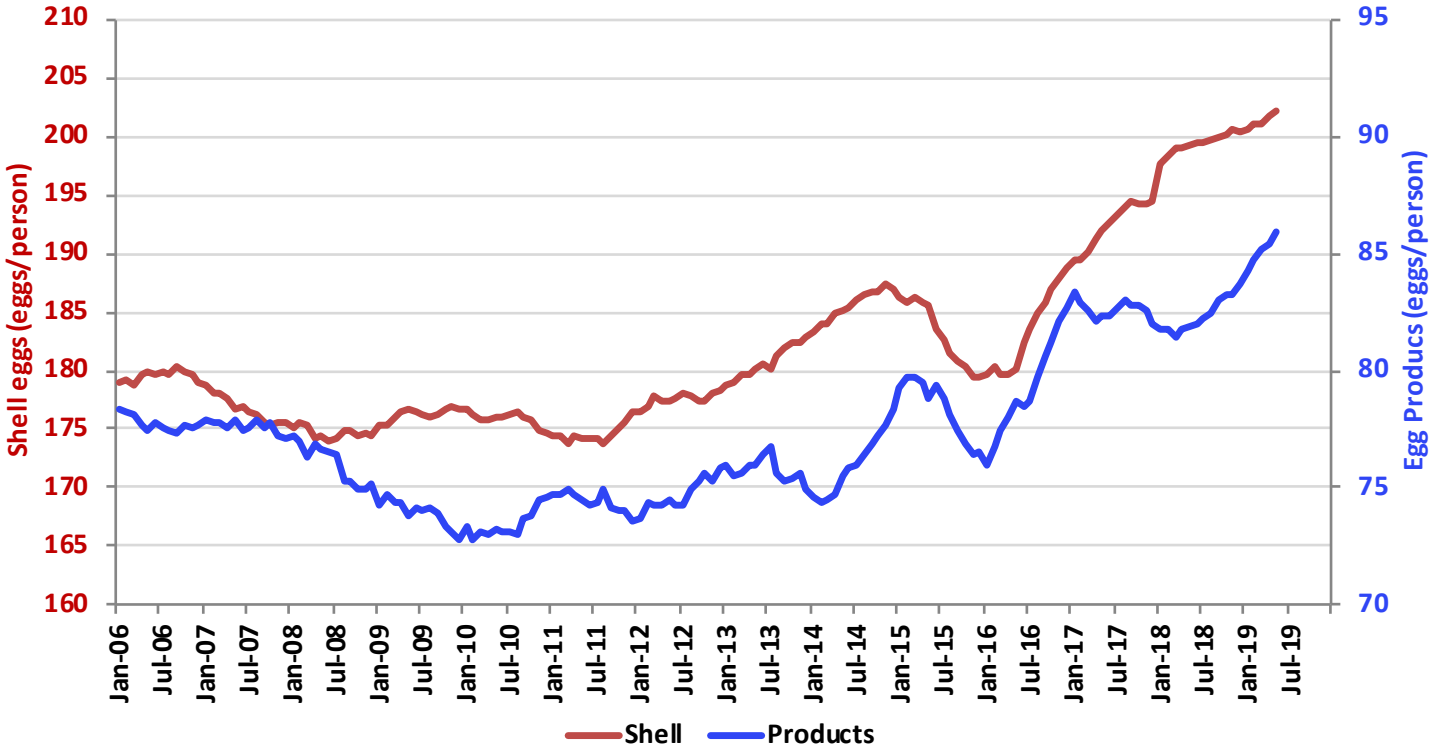


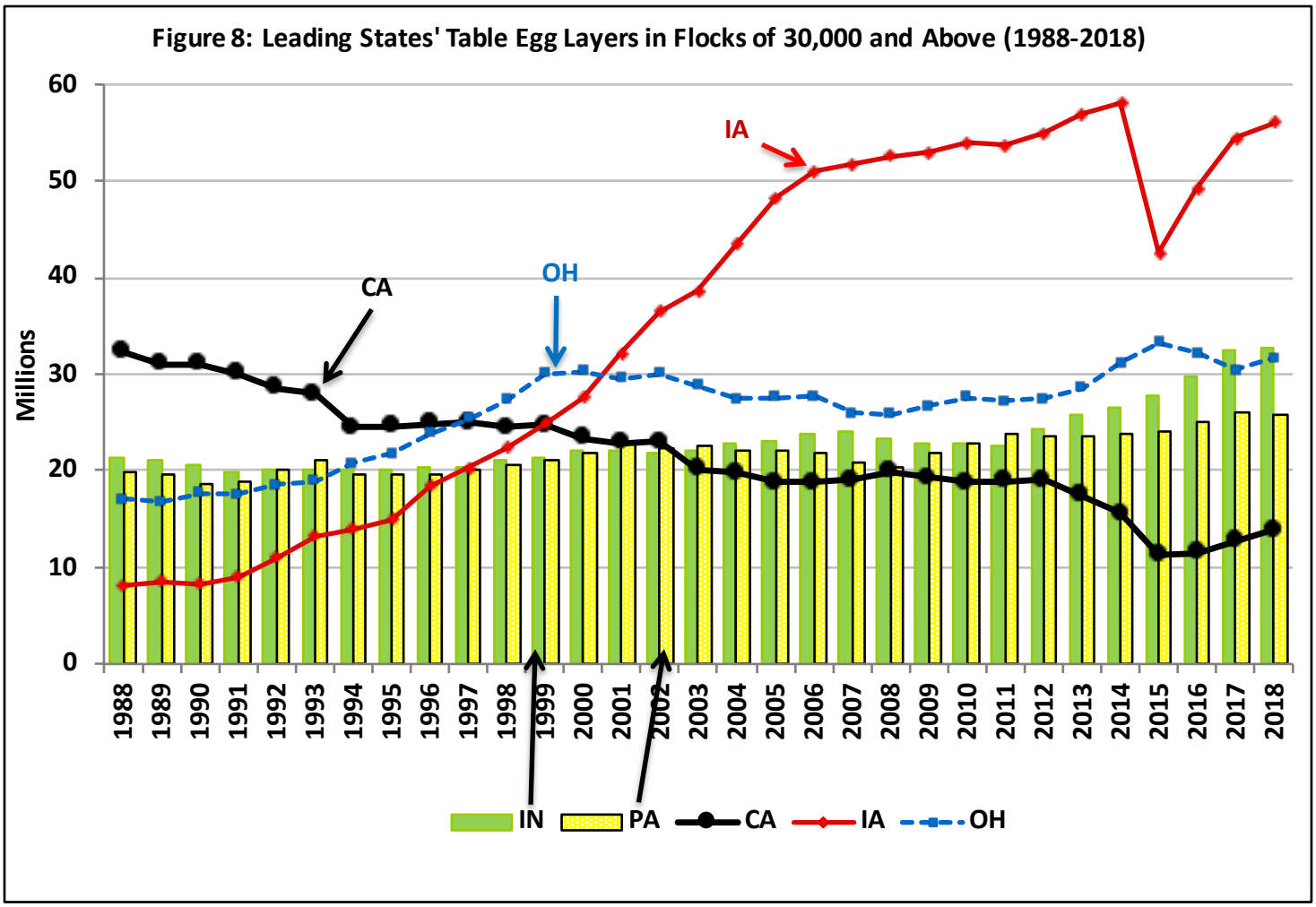
TABLE EGG LAYERS IN LEADING STATES - (LAYERS IN 30,000+ HEN FLOCKS) - 2019 **TABLE 12**

month	IA	OH	IN	PA	CA	U.S.
May-2018	56.29	31.49	32.60	25.83	13.59	313.77
			(Millions)			
Jan-2019	55.63	31.55	33.85	25.86	13.73	319.94
Feb-2019	56.38	33.81	34.19	25.52	13.05	321.33
Mar-2019	57.50	36.08	34.03	25.38	12.93	325.39
Apr-2019	57.55	35.75	33.72	25.27	12.88	324.12
May-2019	56.84	34.71	33.30	25.54	12.78	319.03
Jun-2019						
Jul-2019						
Aug-2019						
Sep-2019						
Oct-2019						
Nov-2019						
Dec-2019						
5 Month Avg.	**56.78**	**34.38**	**33.82**	**25.51**	**13.08**	**321.96**

Source: USDA NASS Chickens and Eggs

In March 2019 USDA stopped reporting the number of table egg layers for Texas which was the 5th largest egg producing State then.

% of all U.S. table egg layers in flocks with 30,000 or more hens =	**95.6%**



PROJECTED U.S. EGG-TYPE HATCHERY SUPPLY FLOCK (Millions) **TABLE 13**

month	2013	2014	2015	2016	2017	2018	2019
Jan	2.579	2.540	2.682	3.081	2.581	2.741	2.142
Feb	2.613	2.536	2.689	3.074	2.598	2.705	2.078
Mar	2.630	2.472	2.605	2.997	2.742	2.541	2.122
Apr	2.588	2.530	2.718	2.840	2.705	2.549	2.120
May	2.515	2.497	2.917	2.805	2.699	2.434	2.145
Jun	2.537	2.439	2.892	2.866	2.747	2.325	2.246
Jul	2.436	2.608	2.797	2.836	2.696	2.434	2.219
Aug	2.515	2.535	2.797	2.725	2.764	2.442	2.253
Sep	2.503	2.553	2.857	2.615	2.755	2.418	2.297
Oct	2.468	2.610	2.958	2.446	2.782	2.413	2.301
Nov	2.555	2.619	2.937	2.566	2.685	2.386	2.374
Dec	2.476	2.664	2.947	2.650	2.659	2.296	2.389
12 month avg.	2.535	2.550	2.816	2.792	2.701	2.474	2.224
12 month avg.	2.535	2.550	2.816	2.792	2.701	2.474	

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 14**

(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	20.7	24.0	19.4
Feb	17.8	18.4	21.5	18.9	18.0	20.9	18.9
Mar	19.2	20.2	22.7	19.6	23.2	24.8	21.0
Apr	18.9	16.5	20.7	18.8	21.8	21.1	19.3
May	18.6	18.2	21.1	20.6	20.8	21.1	19.9
Jun	19.4	18.0	20.9	19.8	22.8	24.6	20.2
Jul	20.6	20.7	27.1	24.0	25.1	26.1	23.5
Aug	20.2	21.4	25.7	25.2	26.2	25.1	23.8
Sep	20.9	21.4	23.1	23.8	26.6	27.4	23.2
Oct	22.4	21.8	25.9	24.1	27.1	27.4	24.3
Nov	20.0	21.3	26.0	22.4	24.1		22.8
Dec	19.2	19.3	18.8	18.9	22.9		19.8
10 month avg.	19.5	19.4	23.0	21.4	23.2	24.2	21.3
Annual Avg.	19.5	19.6	22.9	21.3	23.3		21.3
Total	234.6	235.1	274.7	255.8	279.4		255.9

Source: USDA NASS Chickens and Eggs % Change to date 4.34

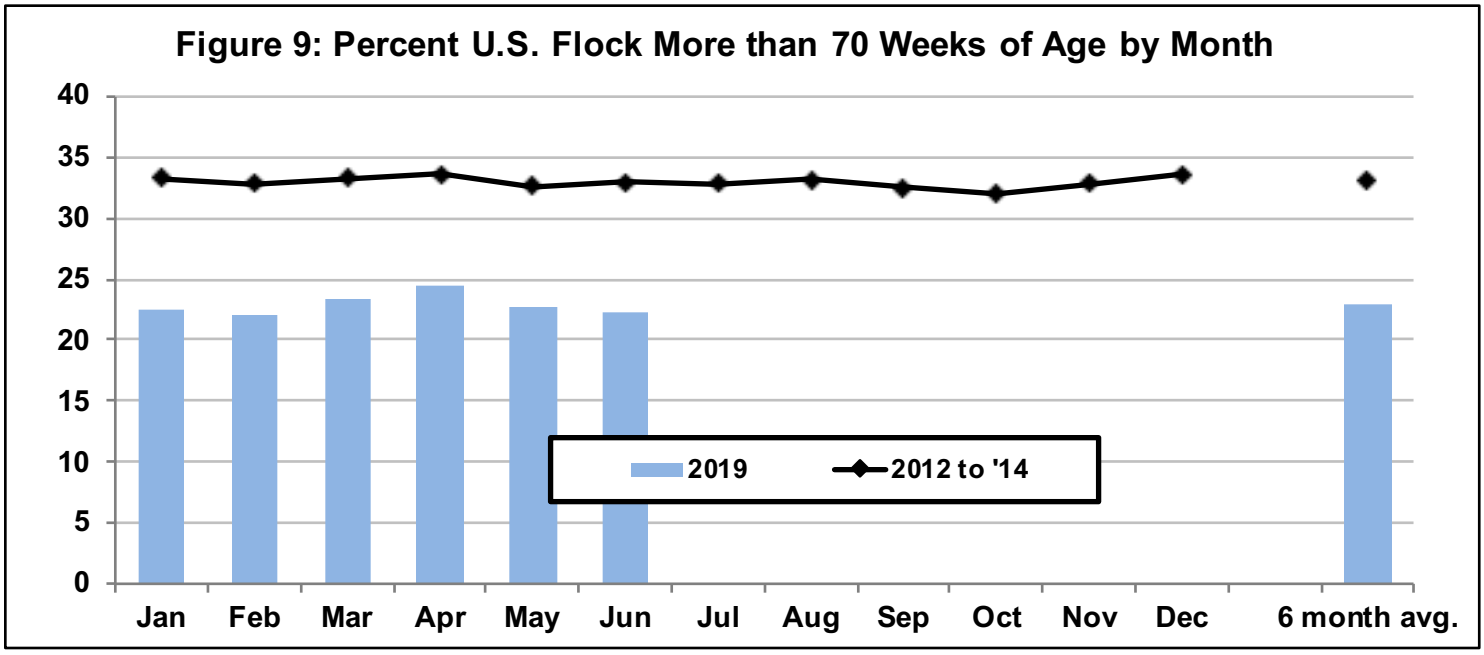
Note: The number of pullets to be housed was reduced by 6 million based on the number reported as lost to avian influenza. We assumed the reduction as evenly spread during the period between May and September 2015 (assuming that the ages of affected birds was evenly distributed).

PROJECTED U.S. TABLE EGG FLOCK MORE THAN 70 WEEKS OF AGE (% of layers) **TABLE 15**

	% of National Flock over 70 weeks of age (on the 1st of the month)						
	2014	2015	2016	2017	2018	2019	2012 to '14
Jan	33.1	32.2		24.3	29.4	22.5	33.3
Feb	31.8	31.1		24.5	27.8	22.1	32.9
Mar	31.8	32.0		24.9	28.3	23.5	33.3
Apr	32.5			25.4	28.1	24.6	33.6
May	32.2			26.2	27.3	22.8	32.7
Jun	32.2			27.0	28.0	22.2	33.0
Jul	32.4			26.3	27.4		32.9
Aug	33.4			27.2	26.5		33.2
Sep	32.5			28.3	25.6		32.5
Oct	32.1			27.6	24.2		32.0
Nov	31.5		21.4	28.6	23.8		32.9
Dec	32.8		23.4	29.3	23.3		33.6
6 month avg.	32.3			25.4	28.2	22.9	33.1
12 month avg.	32.4			26.6	26.6		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: 0.08748 - 0.00486 * Price 12-18_ Jan - 0.00665 * Price 12-18_ Feb - 0.00275 * Price 12-18_ Mar - 0.00632 * Price 12-18_ Apr - 0.00416 * Price 12-18_ May - 0.00294 * Price 12-18_ Jun + 0.0033 * Price 12-18_ Jul + 0.00364 * Price 12-18_ Aug + 0.00426 * Price 12-18_ Sep + 0.00459 * Price 12-18_ Oct - 0.00064 * Price 12-18_ Nov - 0.00574 * Price 12-18_ Dec - 0.00094 * 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=0.72

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: = 0.01395 + 0.79519 * Added /Beg. count + 0.0039 * Jan - 0.0046 * Feb - 0.00214 * Mar + 0.00567 * Apr + 0.00251 * May - 0.00061 * Jun - 0.00096 * Jul - 0.00605 * Aug - 0.0022 * Sep - 0.00934 * Oct - 0.01192 * Nov + 0.01792 * Shock _ Sep + 0.00923 * "Adj. Price <0.80 _ Qtr 4"

   ... 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 "Adj. Price <0.80 _ Qtr 4" is a dummy variable that takes the value one if the CPI adjusted Urner Barry midwest large price in the last quarter of the year is lower than 0.8 and zero otherwise

   Adjusted R^2=0.60

First of the Month Projection Estimates of U.S. Table Egg Layers (millions) **TABLE 16**

Actual	Actual	Actual	Actual	Actual	Actual	Projected	Projected	Projected	Projected	Projected	Projected
2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
331.6	333.6	340.0	341.7	337.5	331.5	332.0	332.8	335.2	337.0	338.3	342.4

Project. Year end: **Dec 31, 2019 - 342.0**

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

Date calculated: 7/1/2019

2019 Bird Flow by Month

Table 17

	ACTUAL FLOCK (million birds)			
month	Beginning Count	Pullets added [1]	Slaughter, Died & Missing	Ending count
Jan-19	331.6	24.0	22.0	333.6
Feb-19	333.6	20.9	14.5	340.0
Mar-19	340.0	24.8	23.1	341.7
Apr-19	341.7	21.1	25.4	337.5
May-19	337.5	21.1	27.0	331.5
Jun-19	331.5	24.6		
Jul-19		26.1		
Aug-19		25.1		
Sep-19		27.4		
Oct-19		27.4		
Nov-19				
Dec-19				
Jan-20				
Feb-20				
Mar-20				
Apr-20				
May-20				
Jun-20				
Jul-20				
Aug-20				
Sep-20				
Oct-20				
Nov-20				
Dec-20				

[1] at 5 months of age

Table 18

	PROJECTED FLOCK (million birds)			
month	Beginning Count	Pullets added [1]	Slaughter, Died & Missing	Ending count
Jan-19	331.6	24.0	22.0	333.6
Feb-19	333.6	20.9	14.5	340.0
Mar-19	340.0	24.8	23.1	341.7
Apr-19	341.7	21.1	25.4	337.5
May-19	337.5	21.1	27.0	331.5
Jun-19	331.5	24.6	24.1	332.0
Jul-19	332.0	26.1	25.3	332.8
Aug-19	332.8	25.1	22.7	335.2
Sep-19	335.2	27.4	25.6	337.0
Oct-19	337.0	27.4	26.1	338.3
Nov-19	338.3	24.1	19.9	342.4
Dec-19	342.4	22.2	22.6	342.0
Jan-20	342.0	22.6	24.1	340.4
Feb-20	340.4	21.7	20.6	341.6
Mar-20	341.6	23.5	22.8	342.2
Apr-20	342.2	22.2	24.4	340.0
May-20	340.0			
Jun-20				
Jul-20				
Aug-20				
Sep-20				
Oct-20				
Nov-20				
Dec-20				

[1] at 5 months of age

Actual number

In March 2019, USDA updated the number of table egg layers in the U.S. The adjustment goes back to January 2017.

2019 U.S. Flock Size: EIC Projections and USDA Reported Num Table 19

EIC projected	USDA preliminary	USDA actual count

For June 2019

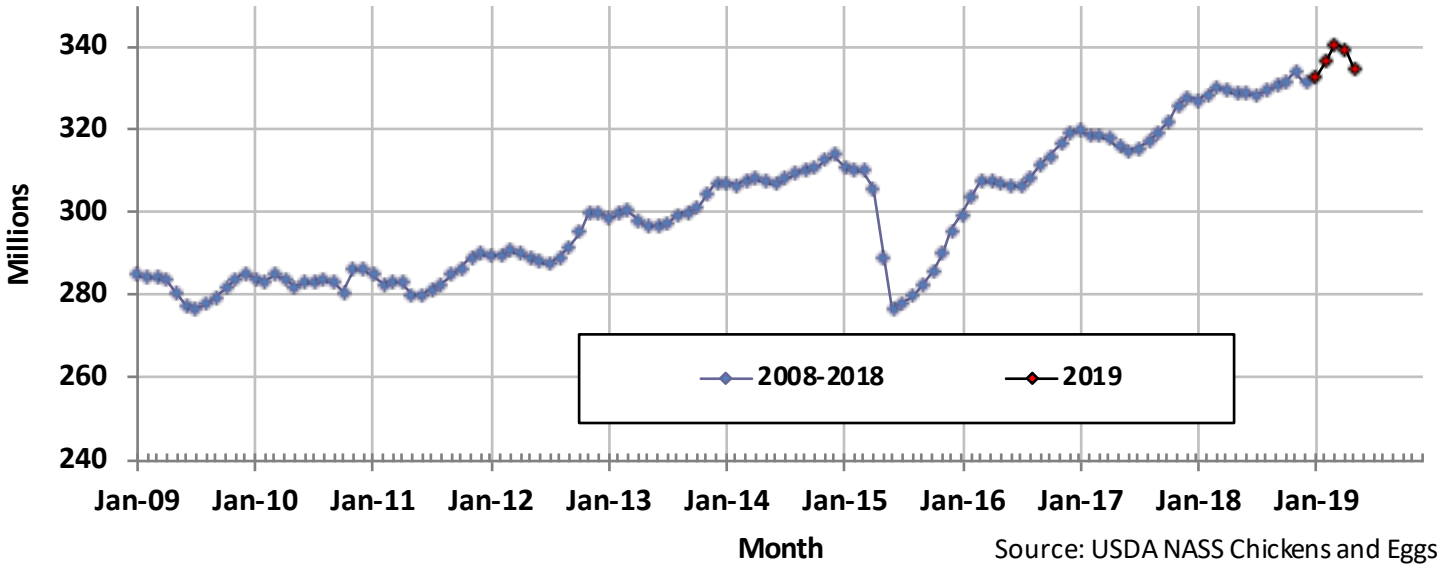
Number of U.S. table egg layers (million) on the 1st of each month

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-18		**331.6**										
Feb-18		**329.5**	**333.6**									
Mar-18		330.7	**336.1**	**340.0**								
Apr-18		332.0	337.0	**341.5**	**341.7**							
May-18		329.8	334.7	339.1	**338.6**	**337.5**						
Jun-18		328.6	333.4	337.8	337.3	**331.5**						
Jul-18		329.1	333.8	338.1	337.7	332.0						
Aug-18		329.9	334.7	338.9	338.4	332.8						
Sep-18		332.5	337.3	341.3	340.9	335.2						
Oct-18		333.7	338.8	342.8	342.6	337.0						
Nov-18		337.1	339.9	343.9	343.7	338.3						
Dec-18		341.1	341.4	345.5	345.3	342.4						
Jan-19		341.3	341.0	342.4	342.2	342.0						
Feb-19			339.4	340.8	340.6	340.4						
Mar-19				341.9	341.7	341.6						
Apr-19					342.4	342.2						
May-19						340.0						
Jun-19												
Jul-19												
Aug-19												
Sep-19												
Oct-19												
Nov-19												
Dec-19												

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

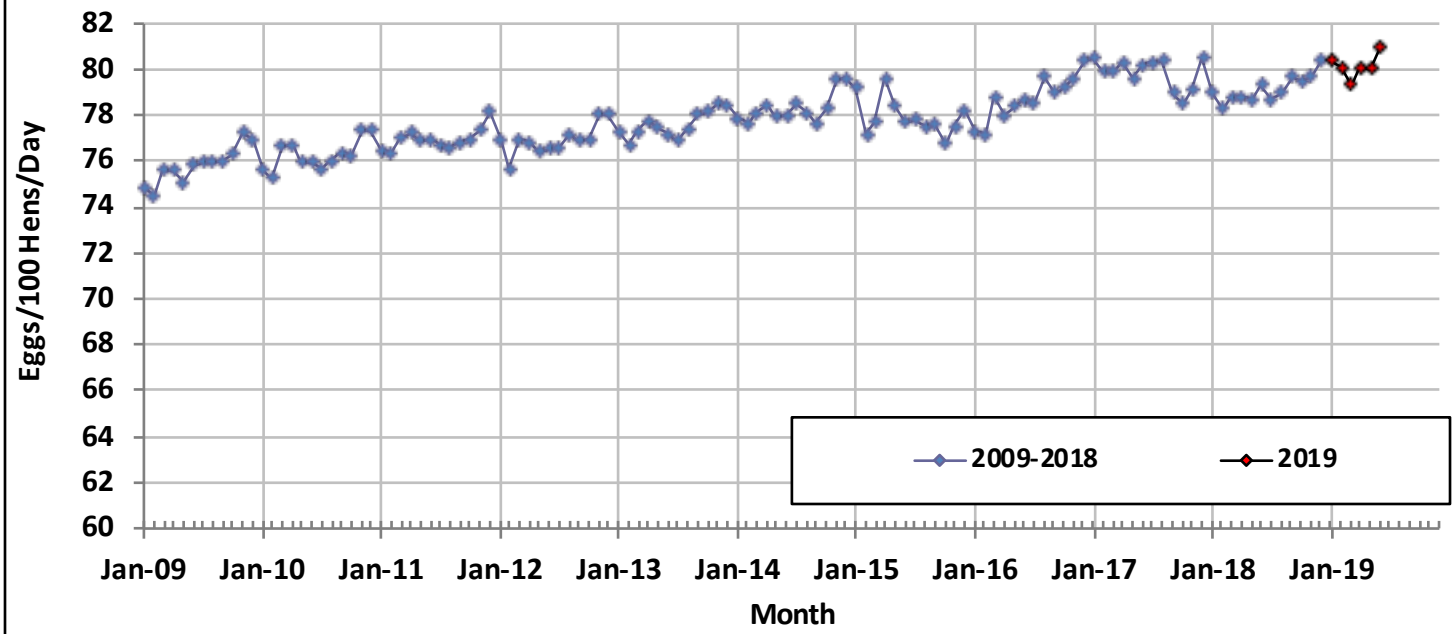


Figure 10: U.S. Monthly Table-Egg Layers (2009-2019)

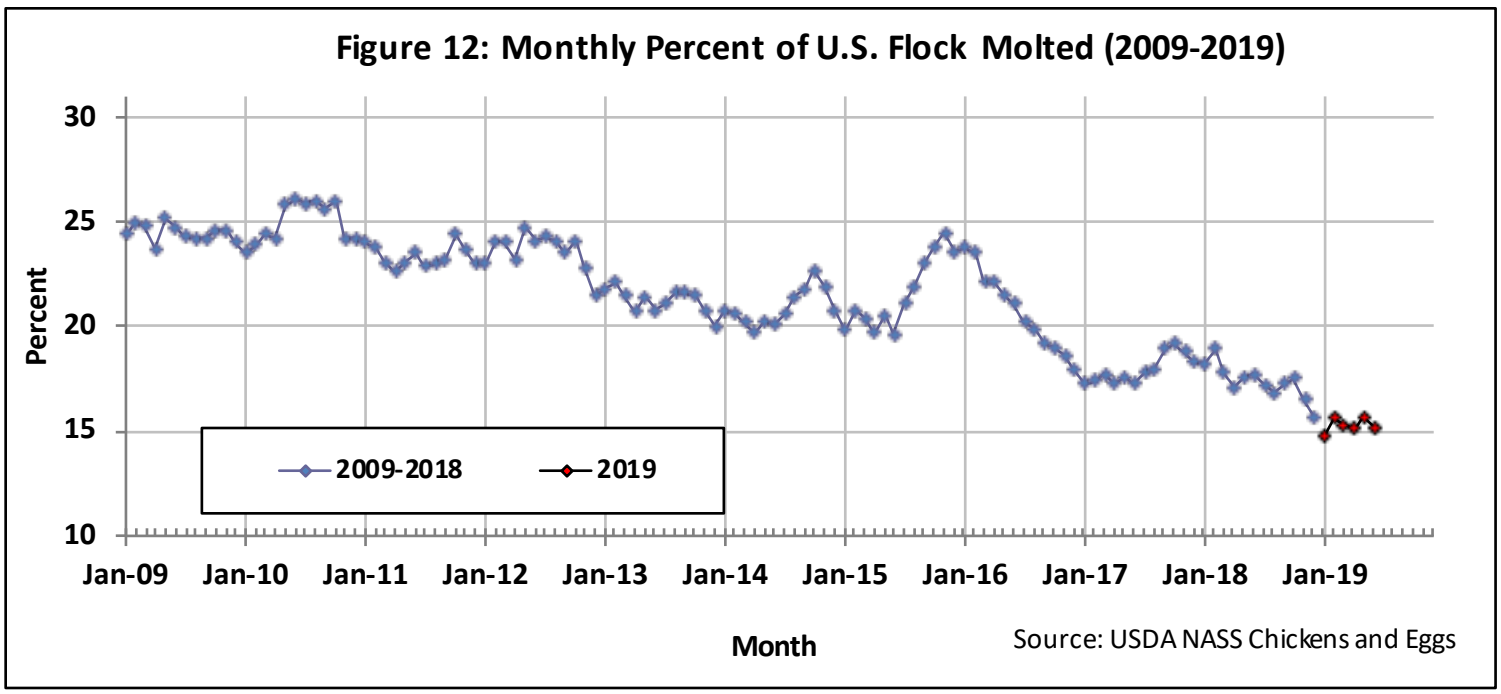


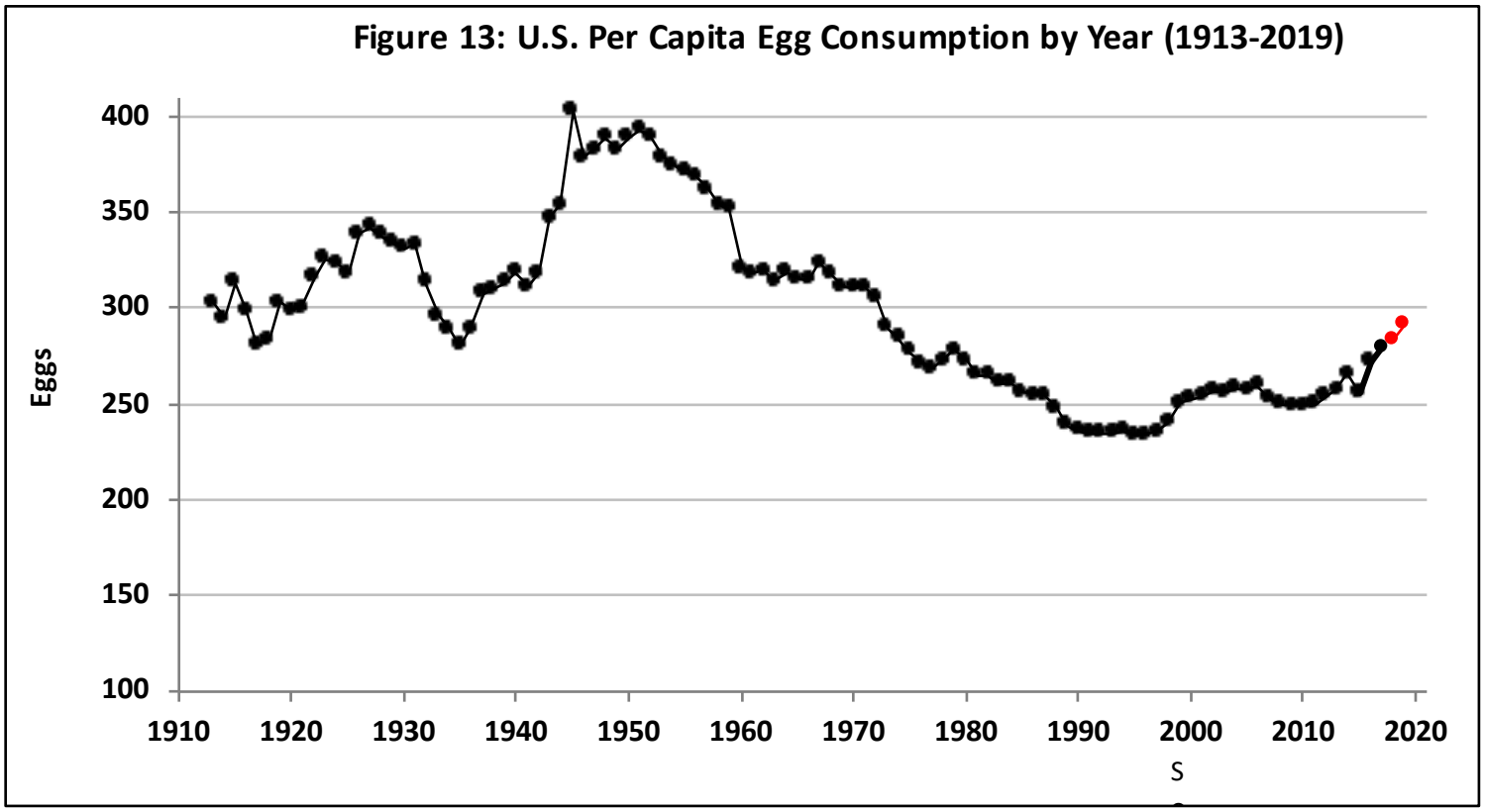
Source: USDA NASS Chickens and Eggs

Figure 11: U.S. Table Eggs per Hundred Hens per Day by Month (2009-2019)



Egg Industry Center


Figure 12: Monthly Percent of U.S. Flock Molted (2009-2019)
30
25
20
15
10
Percent
2009-2018
2019
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Month
Source: USDA NASS Chickens and Eggs


Figure 13: U.S. Per Capita Egg Consumption by Year (1913-2019)
400
350
300
250
200
150
100
Eggs
1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
2020

SUMMARY TO DATE **Table 20**

		2018	2019	% Change
HATCH of EGG-TYPE STRAIGHT RUN (THOUSANDS) (U.S.) (Total)	Jan to May	55,931	57,100	2.1
TABLE-EGG LAYERS (MILLIONS) (U.S.) (Avg	Jan to May	328.8	336.9	2.5
TABLE EGGS (MILLIONS/MONTH) (U.S.) (Avg	Jan to May	7,824	8,145	4.1
RATE OF LAY (%)	Jan to May	78.8	80.2	1.3
U.S. TABLE EGG AVG. CASES/WEEK (THOUSANDS)	Jan to May	1,814	1,888	4.1
AVG MONTHLY CASES OF EGGS BROKEN (MILLION) (U.S.)	Jan to May	6.386	6.893	7.9
		2016	**2017**	**Difference**
PERCENT OF U.S. FLOCK IN or POST MOLT (Avg.)	Jan to Jun	17.9	15.3	-2.6
AVERAGE PULLETS ADDED/MONTH (MILLIONS) (U.S.)	Jan to Oct	23.2	24.2	1.0

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 Report	https://www.ams.usda.gov/mnreports/pymcagefree.pdf

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