BROILER INDUSTRY PRODUCTION REPORT: DECEMBER 2018

- *The model has taken into account the loss of breeders due to highly pathogenic avian influenza (HPAI).*
- The revised 2013 standards were applied in the broiler production forecasting models from January 2013 onwards and were fully implemented by November 2013.
- Two methods are used to produce the data summarised in this report:
    1. Based on the number of female parent chicks placed, the forecasting model predicts:
        - The number of 20-week-old parent hens that will be transferred;
        - The number of hatching eggs that will be produced;
        - The number of broiler chicks that will hatch;
        - The number of broilers that will be slaughtered.
        - This information is deemed to reflect the <u>industry potential</u>.
    2. Based on the number of day-old broiler chicks hatched as supplied by commercial hatcheries, the model predicts:
        - The number of broilers that will be slaughtered.
        - This information is deemed to reflect the <u>actual</u> production and is regarded as a true reflection of the industry performance.
- Comparisons are made between potential and actual figures as a means of validating both the model assumptions and the data supplied by the industry.
- The reliability of the model output is dependent on the supply of accurate monthly data from broiler hatcheries and broiler breeder operations. ***We are most grateful to our regular contributors.***

TABLE 1: BROILER BREEDER PRODUCTION STANDARDS:

	2011	2013	2011	2013
Broiler Breeder Flock:				
Mortality to 20 weeks of age:	5.6%	5.6%	5.6%	5.6%
Laying Cycle: 20 weeks to	60 weeks	60 weeks	61 weeks	61 weeks
Mortality during the laying cycle:	8.7%	8.1%	8.8%	8.2%
Broiler Breeder Performance				
Total eggs per hen housed	151.7	166.1	154.0	169.2
Hatching eggs per hen housed:	141.2	150.6	143.4	153.5
Broiler chicks per hen housed:	122.3	126.8	124.0	128.7

1. BROILER BREEDERS

Day-old parent pullets placed

An average of 205 400 day-old parent pullets was placed per week in December 2018 (Graph 1). This was an increase of 37 000 parent pullets (+22.0%) compared to the previous month and an increase of 24 700 parent pullets (+13.7%) compared to the same month of the previous year.

In total 872 900 day-old parent pullets were placed in December 2018; this was a month-on-month increase of 115 100 parent pullets (+15.2%), and a year-on-year increase of 105 000 parent pullets (+13.7%).
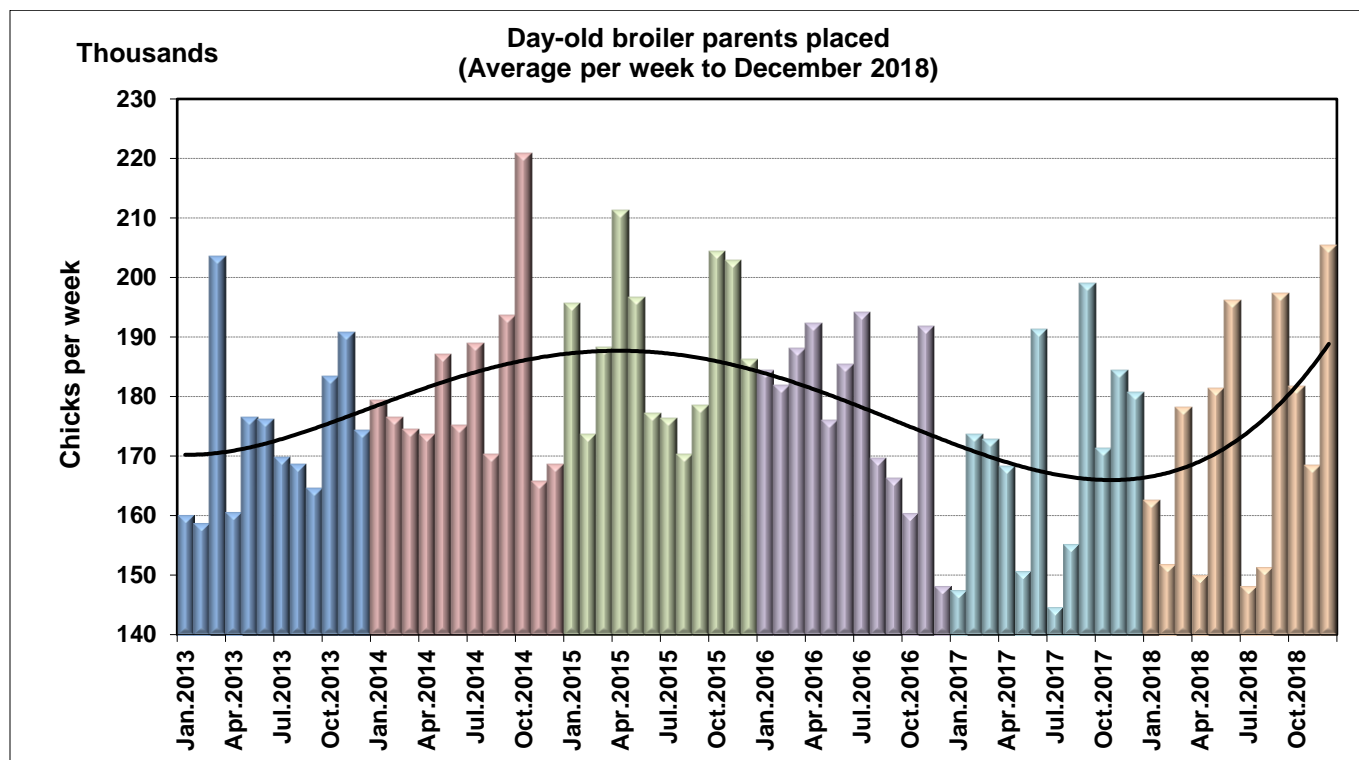

GRAPH 1: Day-old broiler female parents placed

Broiler breeder flock

The average number of breeder hens for the month under review was 6.470 million (Graph 2). This was a decrease of 170 300 hens (-2.6%) compared to November 2018, and an increase of 442 900 hens (+7.4%) compared to December 2017. The average age of the breeder flock was 40.4 weeks.

In March 2019 the breeder flock was expected to comprise 6.443 million hens; a 0.4% decrease on December's figure. The average number of breeder hens for January to March of 2019 was forecasted to be 6.434 million (Graph 3).

Average broiler breeder flock
Laying cycle : 20 to 61 weeks of age
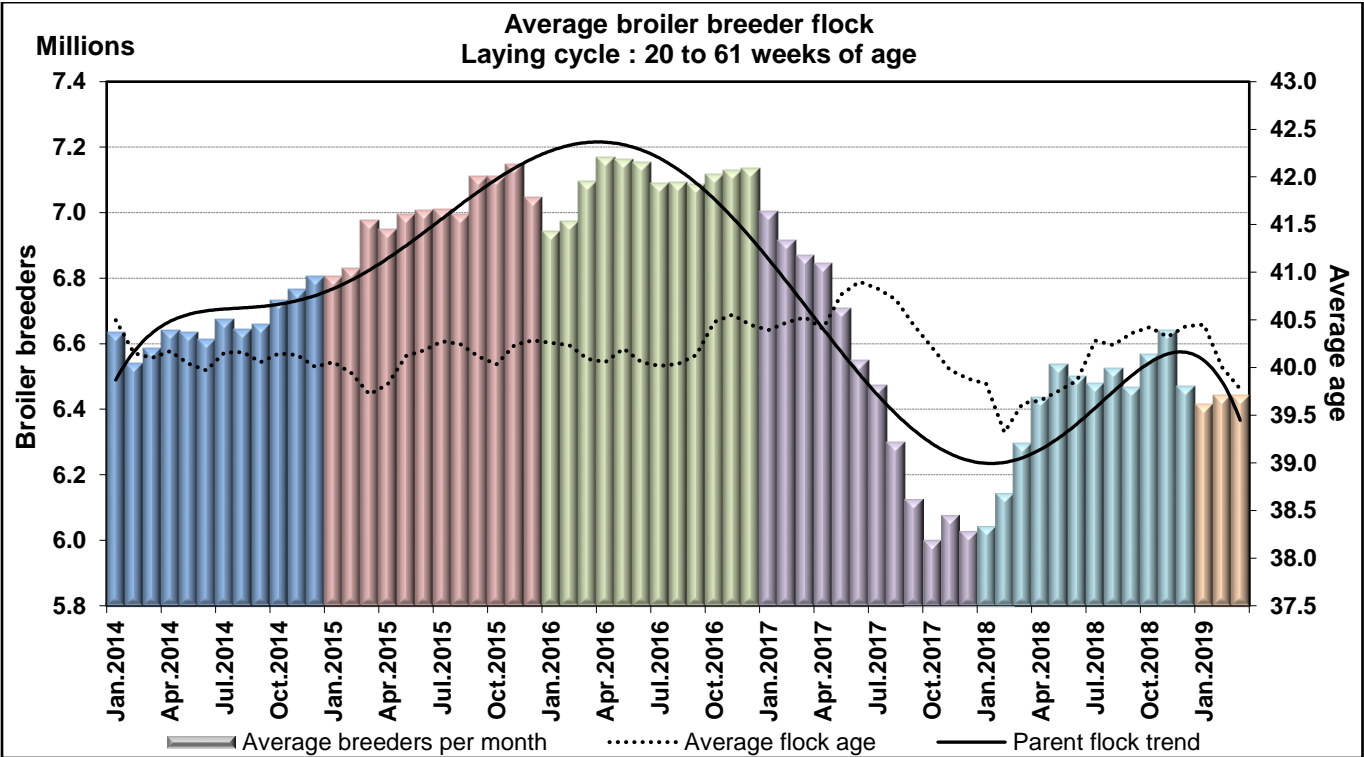
GRAPH 2: Monthly broiler breeder flock and average hen age

Average broiler breeders per annum
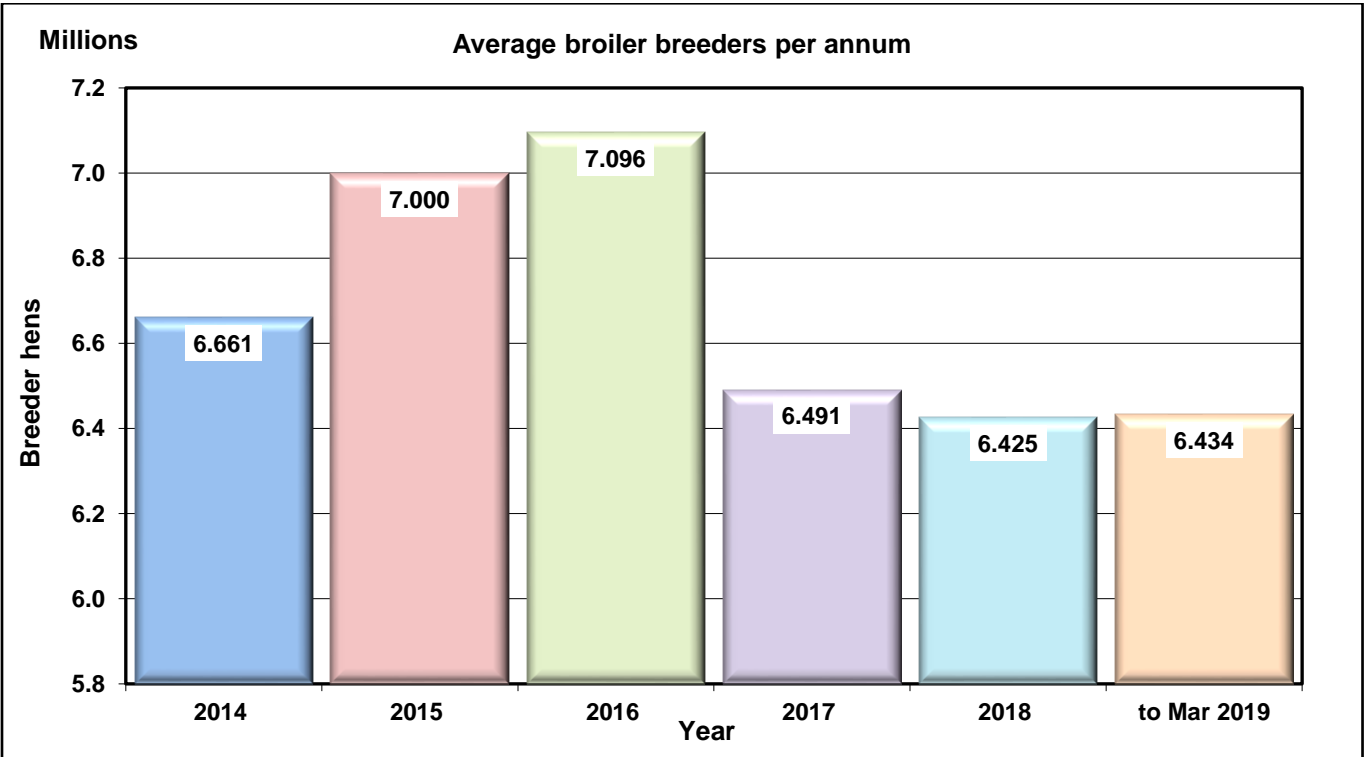
GRAPH 3: Annual average number of broiler breeder hens

2. BROILER CHICK PLACEMENTS
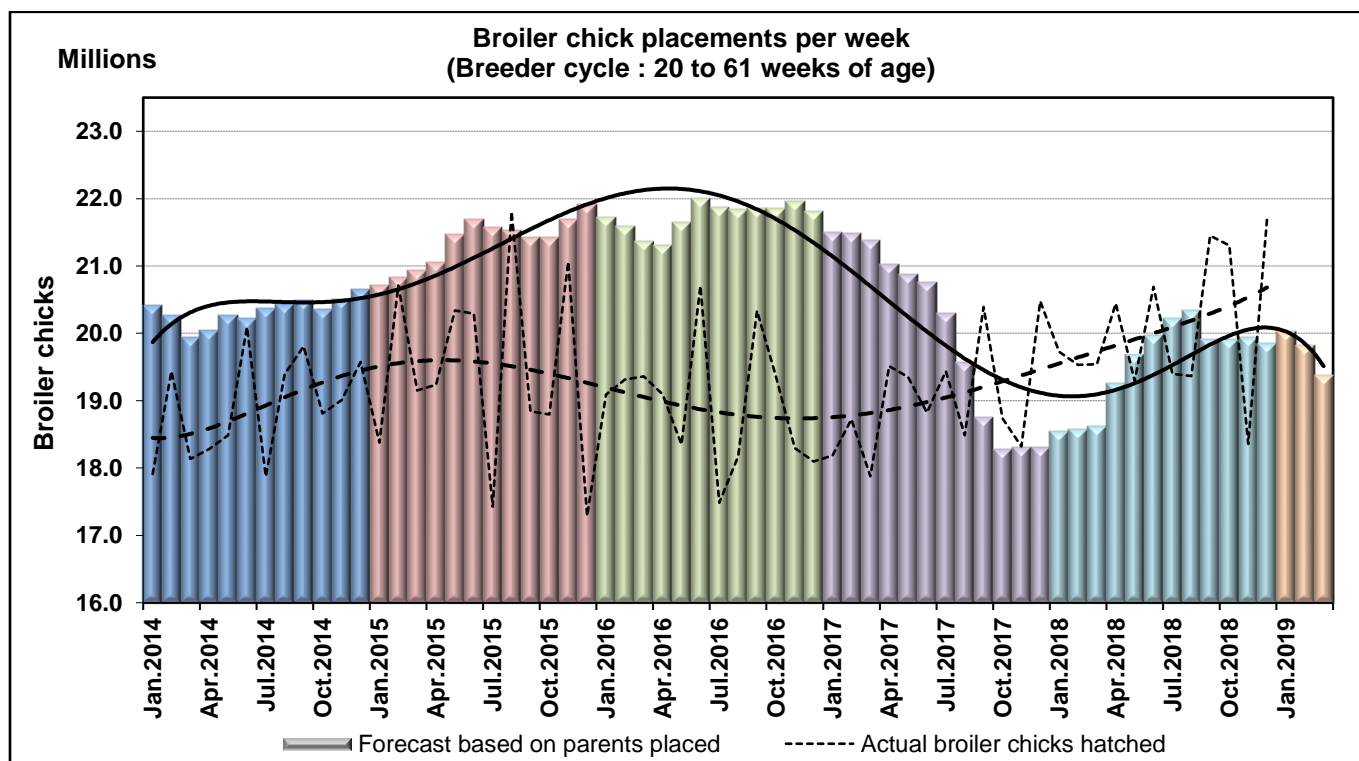
Actual placement:

Broiler hatcheries produced 21.691 million day-old chicks per week in December 2018 (Graph 4, dotted line). Compared to November 2018 this was an increase of 3.332 million chicks (+18.2%). Compared to December 2017 this was an increase of 1.212 million chicks (+5.9%).

In total 92.185 million broiler chicks were hatched during the month under review.

Annual broiler chick placements, from 2014 to 2018, are shown in Graph 5.

Industry Potential:

Based on the forecasting model, potential production of 19.858 million broiler chicks per week was projected for December 2018. Actual production per week was 1.832 million chicks (+9.2%) higher than the potential figure (Graph 4).

GRAPH 4: Day-old chick placements per week

Note: Actual placements (the dashed trend line) show to December 2018; potential placements (based on the forecasting model) are given to March 2019.

Actual broiler chicks placed (million per annum)

- 2014: 982.5
- 2015: 1 014.3
- 2016: 991.1
- 2017: 988.7
- 2018: 1 047.4
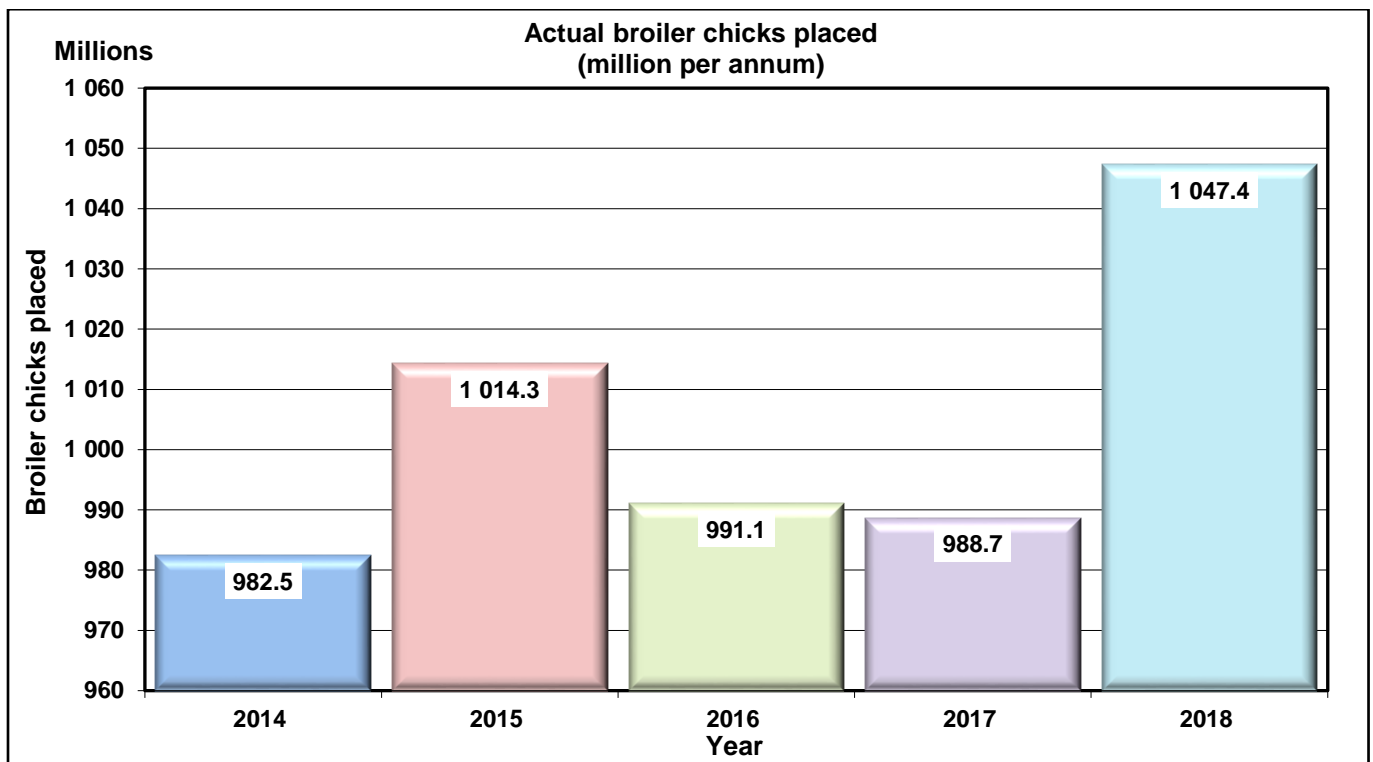
GRAPH 5: Actual broiler chicks placed per annum

3. BROILER PRODUCTION

Actual production:

On average, 17.843 million broilers were produced per week in December 2018 (Graph 6). This was 2.310 million birds (-11.5%) less than the previous month and 0.449 million birds (+2.6%) more than the same month of the previous year.

In total 79.018 million broilers were produced for slaughter in the month under review.

Annual broiler production, from 2014 to 2018, is shown in Graph 7. Annual average production per week for the same period is illustrated in Graph 8.

Industry Potential:

Potentially 18.898 million broilers per week were projected for slaughter in December 2018. Actual production per week was 5.6% less.
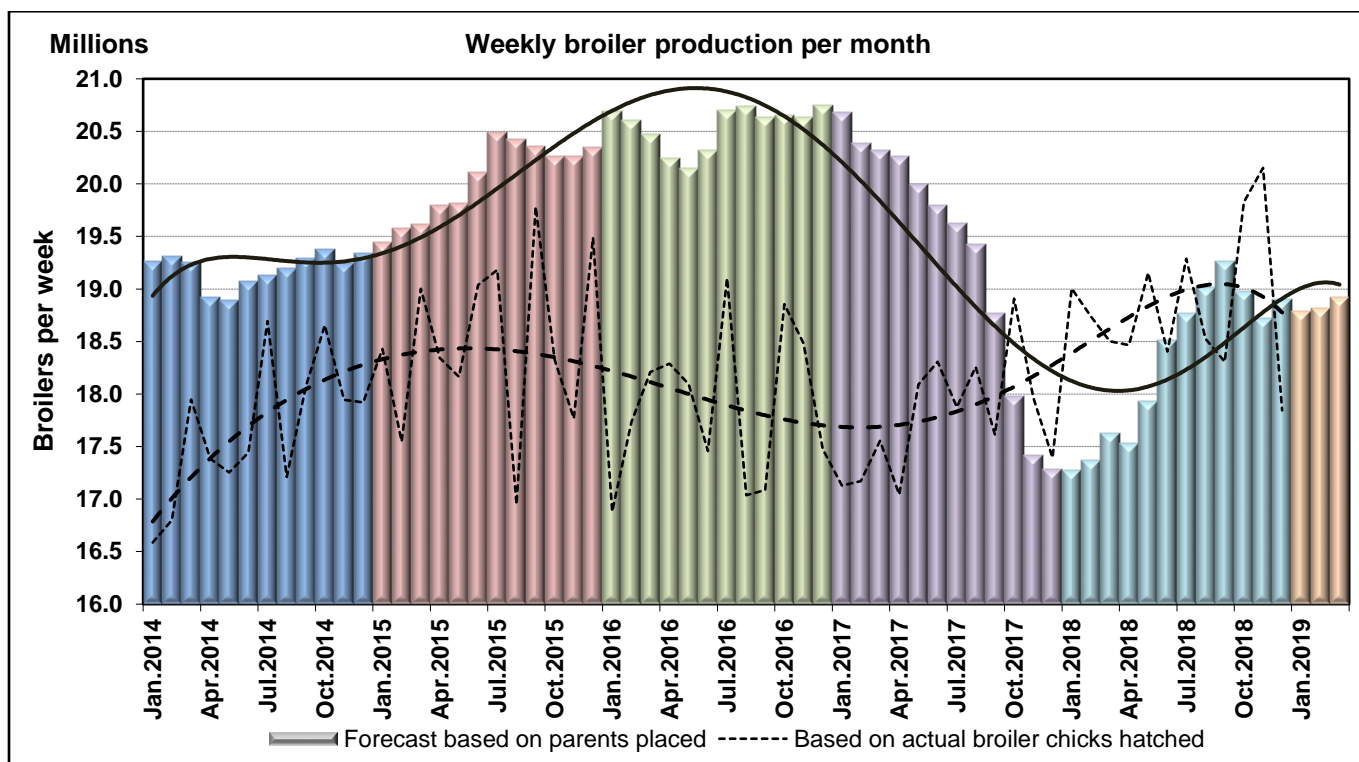
GRAPH 6: Average number of broilers slaughtered per week

GRAPH 7: The total number of broilers slaughtered per annum

Note: Graphs 7 and 8 reflect actual, not potential production, and must therefore be viewed in conjunction with the dashed trend line on Graph 6.
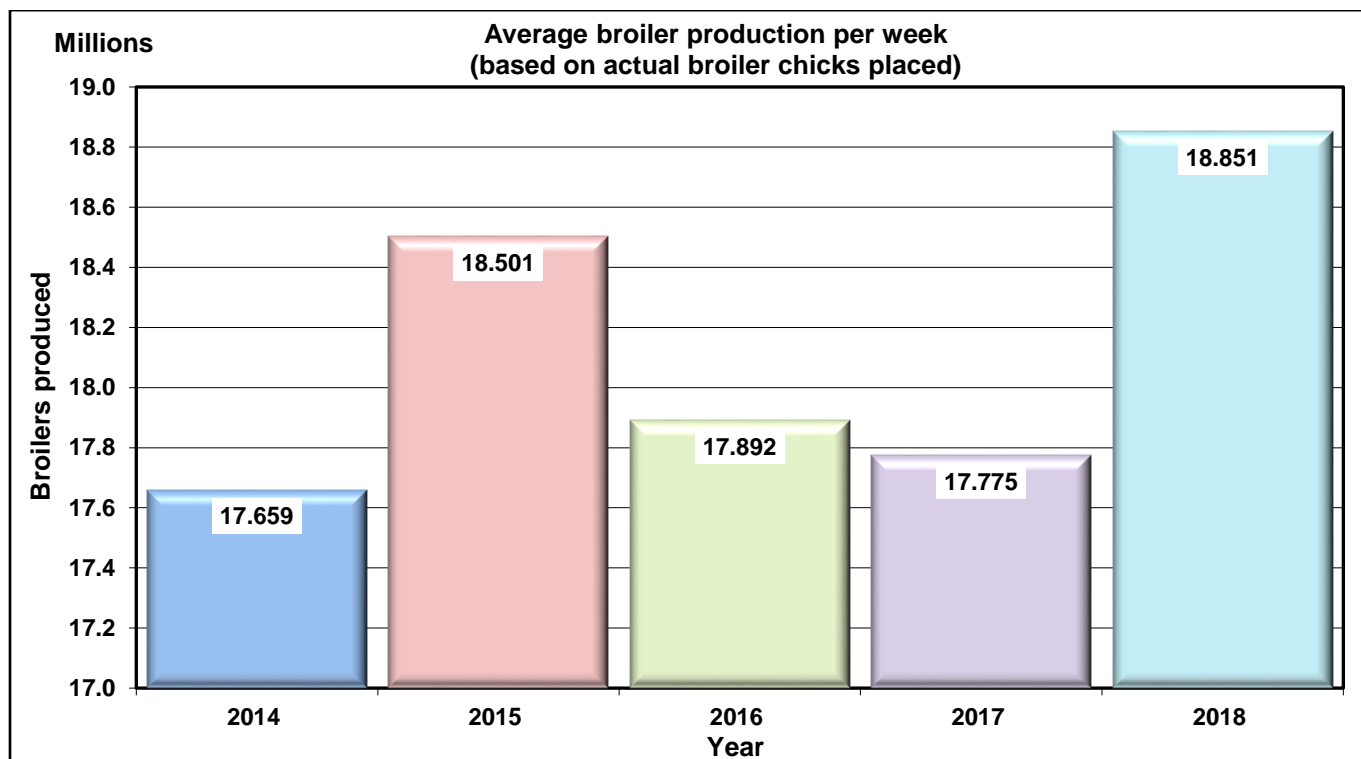
GRAPH 8: Average weekly production per annum

4. BROILER AND BREEDER MEAT PRODUCTION

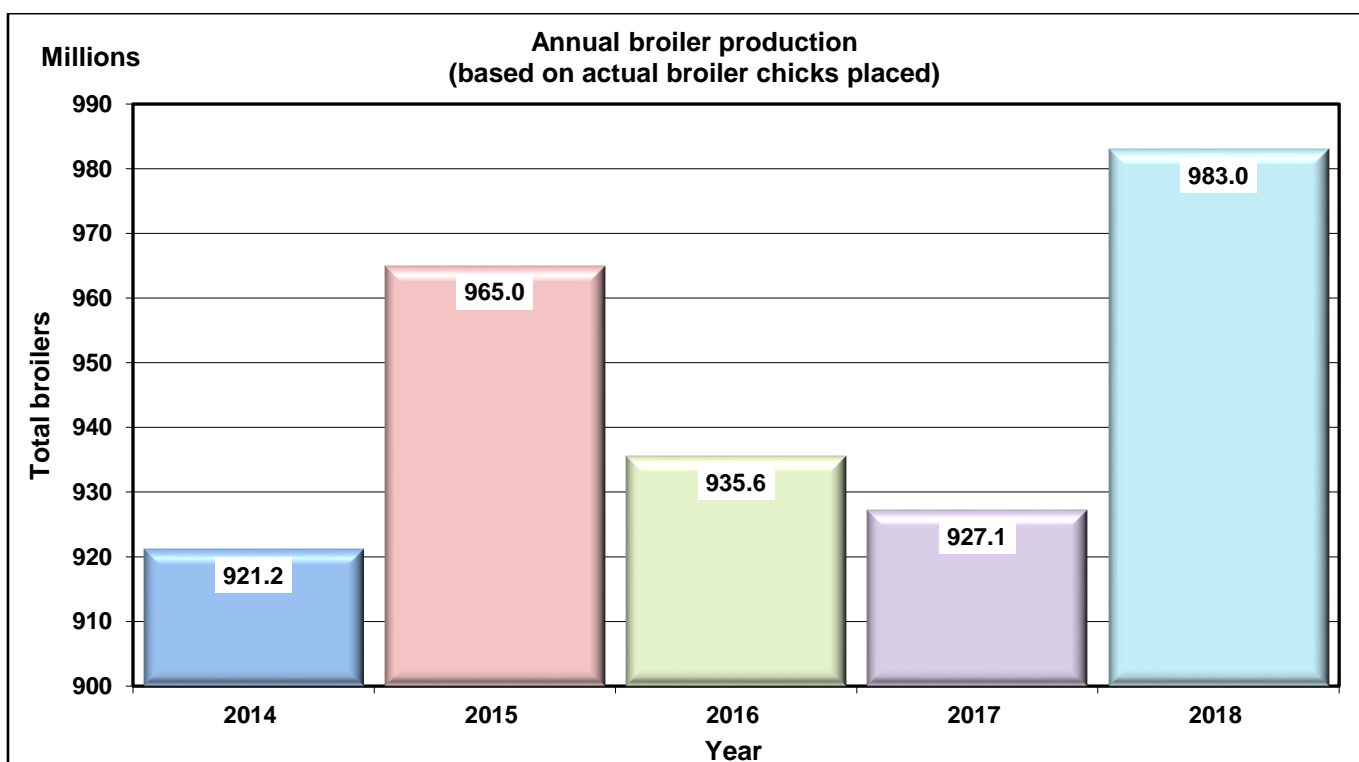The forecasting model predicted 2 800 tonnes would result from the culling of breeder hens and cocks in December 2018. This was 230 tonnes (-7.6%) less than November 2018, and 240 tonnes (+9.5%) more than December 2017.

Actual tonnes of broiler meat produced in December 2018 was 129 900. This was a month-on-month decrease of 12 100 tonnes (-8.5%), and a year-on-year increase of 3 300 tonnes (+2.6%). Actual production was 7 700 tonnes (-5.6%) less than that which was predicted by the forecasting model for December 2018.

Broiler and breeder meat combined resulted in 132 600 tonnes in December 2018. Graph 9 compares potential (dotted line) to actual broiler meat production. All breeder sales are assumed to be live, whilst a broiler slaughter weight of 1.8 kg, revised from 1.85 kg in July 2015, was used. Total broiler meat production includes all saleable offal but excludes brine.

Broiler and breeder meat production
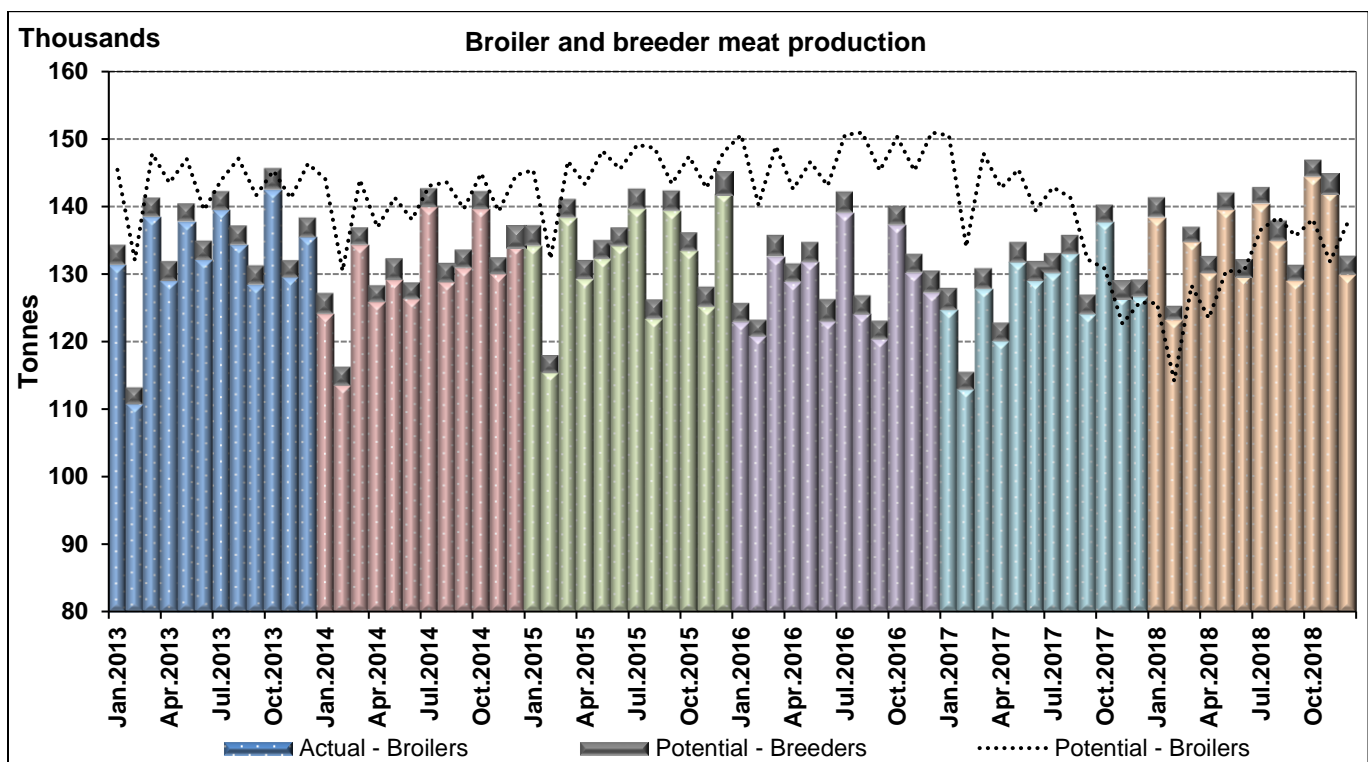
GRAPH 9: Monthly meat production of broilers and breeders

5. BROILER VOLUME AND PRICE

Graph 10 shows the relationships between year-on-year changes in volumes, producer price and the PPI deflated price. A % change > 0 indicates growth in the current month compared to the same month of the previous year.

It must be pointed out that the PPI, as published by STATS SA and used to calculate the deflated price, is an indicator of the general change in production costs in South Africa, not specifically poultry costs.

The PPI deflated price (the red dotted line on Graph 10) is a measure of real producer price increases without the effect of inflation.

**% Change in actual broiler production and broiler price
(variation on same month of previous year)**

Legend: % change in volume — % change in producer price (including offal) — % change in PPI deflated price
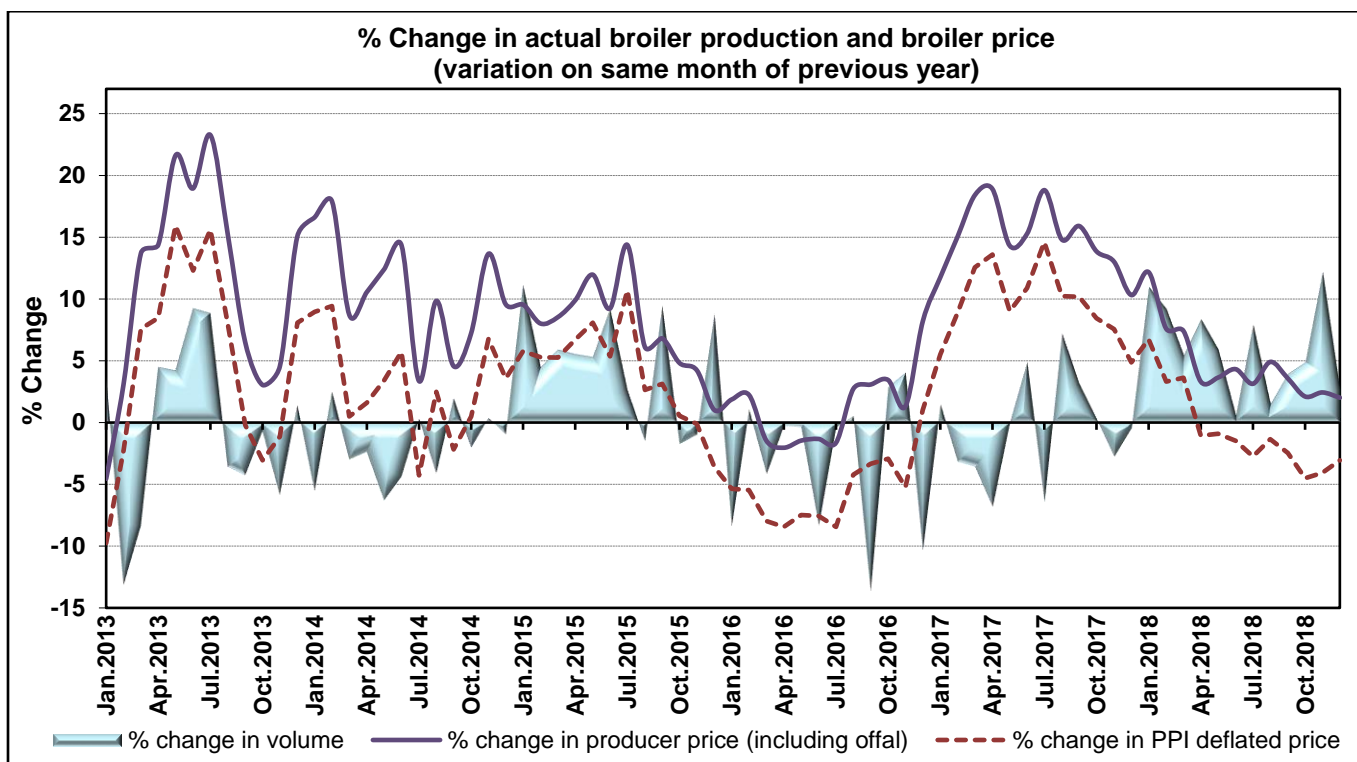
GRAPH 10: Year on year % change in supply and price

6. DEPOPULATION OF LAYERS

Graph 11 shows the number of broiler breeder hens expected to be culled on a monthly basis. In March 2019, 632 600 old hens were predicted to be depopulated from broiler breeder farms.

**Total broiler parent hens depopulated per month
(4 or 5 weeks per month)**

Thousands

Hens per month

Month	Value
Oct 18	606
Nov 18/5wk	725
Dec 18	666
Jan 19/5wk	701
Feb 19	628
Mar 19	633
Apr 19	572
May 19/5wk	675
Jun 19	567
Jul 19	718
Aug 19/5wk	733
Sep 19	565
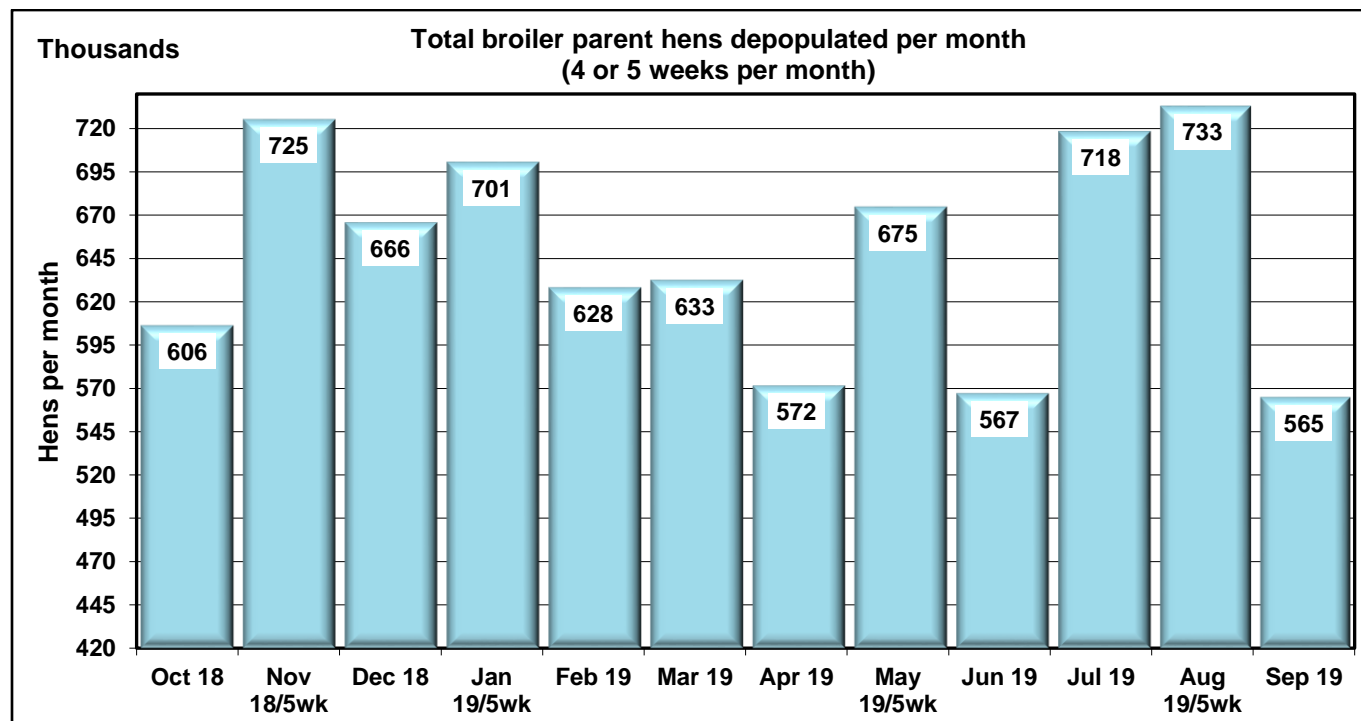
GRAPH 11: Monthly depopulation of broiler parent hens at 61 weeks of age

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7. FEED USAGE

The estimated feed tonnages for December 2018 are as follows:
- Broiler breeder rearing: 8 200 tonnes;
- Broiler breeder laying: 34 200 tonnes;
- Broiler: 242 900 tonnes.

Graph 12 shows the estimated annual consumption of broiler feed.

Millions

Broiler feed usage

GRAPH 12: Annual feed consumed by broilers

The industry statistics are summarised in the Key Results table below:

BROILER INDUSTRY : KEY RESULTS - December 2018

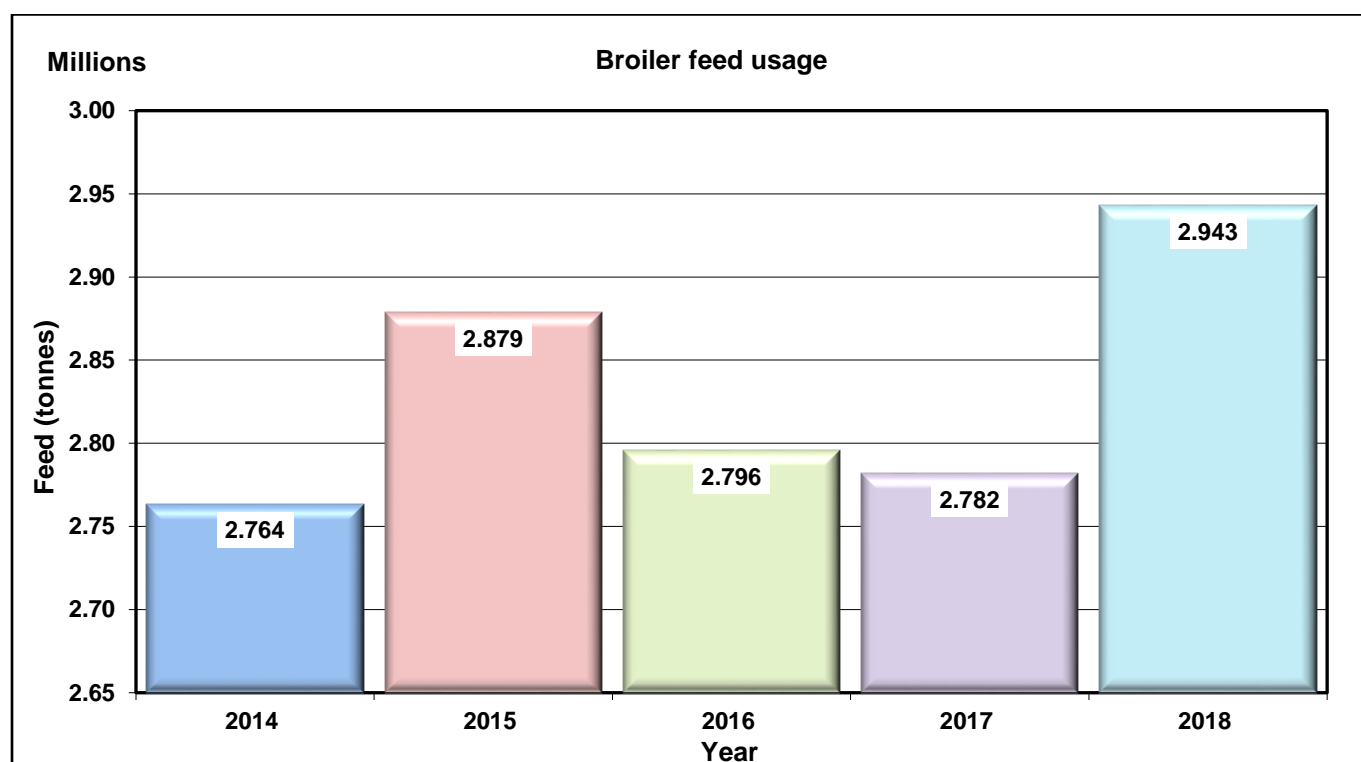|	Hatch days	Calendar Days	Day-old parent pullets placed		Breeder hens	Actual broiler chicks placed		Actual broilers slaughtered	
Month on Month	/Month	/Month	/Month	/Week	Average	/Month	/Week	/Month	/Week
December 2018	17	31	872 909	205 390	6 470 363	92 184 845	21 690 552	79 018 324	17 842 847
November 2018	18	30	757 819	168 404	6 640 666	82 612 249	18 358 278	86 368 945	20 152 754
Change			115 090	36 986	-170 303	9 572 596	3 332 274	-7 350 621	-2 309 907
% Change			15.2%	22.0%	-2.6%	11.6%	18.2%	-8.5%	-11.5%
Year on Year	/Month	/Month	/Month	/Week	Average	/Month	/Week	/Month	/Week
December 2018	17	31	872 909	205 390	6 470 363	92 184 845	21 690 552	79 018 324	17 842 847
December 2017	17	31	767 885	180 679	6 027 429	87 032 354	20 478 201	77 029 598	17 393 780
Change			105 024	24 712	442 934	5 152 491	1 212 351	1 988 726	449 067
% Change			13.7%	13.7%	7.3%	5.9%	5.9%	2.6%	2.6%
Full year forecast	/Year	/Year	/Year	/Week	Average	/Year	/Week	/Year	/Week
Jan>Dec 2018	209	365	9 014 157	172 716	6 425 291	1 047 390 933	20 066 479	983 028 177	18 851 481
Jan>Dec 2017	208	365	8 828 675	169 941	6 491 043	988 681 466	19 026 965	927 147 249	17 775 458
Change			185 482	2 776	-65 753	58 709 467	1 039 514	55 880 928	1 076 023
% Change			2.1%	1.6%	-1.0%	5.9%	5.5%	6.0%	6.1%
YTD forecast	/Period	/Period	/Period	/Week	Average	/Period	/Week	/Period	/Week
Jan>Dec 2018	209	365	9 014 157	172 716	6 425 291	1 047 390 933	20 066 479	983 028 177	18 851 481
Jan>Dec 2017	208	365	8 828 675	169 941	6 491 043	988 681 466	19 026 965	927 147 249	17 775 458
Change			185 482	2 776	-65 753	58 709 467	1 039 514	55 880 928	1 076 023
% Change			2.1%	1.6%	-1.0%	5.9%	5.5%	6.0%	6.1%

NOTE:
Month or Period: Refers to a calendar month or period
Week: Refers to an average 7 day week of which all 7 days fall within the specified month or period

APPENDIX A

BROILER BREEDER PRODUCTION STANDARDS

2013 STANDARDS

Below, please find the approved 2013 standards as agreed upon at the Chick Producer Organisation Meeting held on 15 August 2013.

PARAMETERS : 2013

| | | | Ind.surv.rate : Par.Rearing (20Wk) | 0.9440 |
| | | | Ind.surv.rate : Par.Laying (61Wk) | 0.9178 |

Age (weeks)	Henday Production ROL %	Total eggs/wk	Hatching Eggs %	Eggs set per hen	Hatch %	Chicks/ Hen	Hen housed Production ROL %	Total eggs/wk	Eggs set per hen	Chicks/ Hen	Cum. chicks/ Hen	Survival rate	Mort.rate /week
0													
20												0.9987	0.0013
21												0.9972	0.0014
22	0.08	0.01					0.08	0.01				0.9957	0.0015
23	2.27	0.16					2.26	0.16				0.9943	0.0014
24	16.05	1.12					15.94	1.12				0.9927	0.0016
25	29.21	2.04	42.36%	0.87	73.4%		28.94	2.03	0.86			0.9907	0.0020
26	55.04	3.85	72.33%	2.79	76.9%		54.41	3.81	2.75			0.9885	0.0022
27	73.59	5.15	80.18%	4.13	79.9%		72.56	5.08	4.07			0.9861	0.0024
28	82.28	5.76	84.91%	4.89	83.6%	0.64	80.94	5.67	4.81	0.63	0.63	0.9837	0.0024
29	84.89	5.94	88.91%	5.28	85.7%	2.14	83.30	5.83	5.18	2.12	2.75	0.9813	0.0024
30	85.82	6.01	90.34%	5.43	86.6%	3.30	84.01	5.88	5.31	3.25	6.00	0.9789	0.0024
31	86.07	6.03	91.39%	5.51	87.5%	4.09	84.05	5.88	5.38	4.02	10.02	0.9765	0.0024
32	85.00	5.95	91.85%	5.47	87.8%	4.53	82.81	5.80	5.32	4.44	14.46	0.9742	0.0023
33	83.92	5.87	92.37%	5.43	88.5%	4.70	81.56	5.71	5.27	4.60	19.06	0.9719	0.0023
34	82.30	5.76	92.94%	5.35	88.1%	4.82	79.80	5.59	5.19	4.71	23.77	0.9696	0.0023
35	81.51	5.71	93.27%	5.32	88.4%	4.80	78.85	5.52	5.15	4.67	28.44	0.9673	0.0023
36	80.65	5.65	93.56%	5.28	88.2%	4.80	77.83	5.45	5.10	4.67	33.11	0.9651	0.0022
37	78.75	5.51	93.53%	5.16	87.8%	4.72	75.83	5.31	4.96	4.58	37.68	0.9629	0.0022
38	78.33	5.48	93.47%	5.13	87.0%	4.70	75.26	5.27	4.92	4.55	42.23	0.9607	0.0022
39	77.03	5.39	93.56%	5.05	87.8%	4.66	73.84	5.17	4.84	4.49	46.73	0.9586	0.0021
40	75.64	5.30	93.67%	4.96	87.4%	4.52	72.35	5.06	4.74	4.36	51.08	0.9565	0.0021
41	74.04	5.18	93.70%	4.86	87.2%	4.46	70.67	4.95	4.64	4.28	55.37	0.9544	0.0021
42	73.30	5.13	93.56%	4.80	87.1%	4.43	69.81	4.89	4.57	4.25	59.61	0.9524	0.0020
43	72.06	5.04	93.47%	4.71	86.4%	4.34	68.48	4.79	4.48	4.15	63.76	0.9503	0.0020
44	70.67	4.95	93.66%	4.63	85.6%	4.23	67.02	4.69	4.39	4.04	67.80	0.9484	0.0020
45	69.52	4.87	93.75%	4.56	85.0%	4.18	65.79	4.61	4.32	3.98	71.78	0.9464	0.0020
46	67.81	4.75	93.71%	4.45	84.8%	4.07	64.05	4.48	4.20	3.87	75.65	0.9445	0.0019
47	66.63	4.66	93.82%	4.38	84.0%	3.97	62.80	4.40	4.12	3.76	79.42	0.9426	0.0019
48	65.55	4.59	93.80%	4.30	83.3%	3.88	61.67	4.32	4.05	3.67	83.08	0.9407	0.0019
49	64.36	4.50	93.75%	4.22	82.7%	3.77	60.42	4.23	3.97	3.56	86.65	0.9389	0.0018
50	63.25	4.43	93.90%	4.16	82.7%	3.68	59.27	4.15	3.90	3.46	90.11	0.9371	0.0018
51	61.62	4.31	94.04%	4.06	81.6%	3.59	57.63	4.03	3.79	3.37	93.49	0.9353	0.0018
52	60.19	4.21	94.00%	3.96	80.9%	3.49	56.19	3.93	3.70	3.28	96.76	0.9335	0.0018
53	58.95	4.13	94.05%	3.88	80.5%	3.44	54.93	3.84	3.62	3.22	99.99	0.9317	0.0018
54	57.77	4.04	94.08%	3.80	80.2%	3.31	53.72	3.76	3.54	3.09	103.08	0.9300	0.0018
55	56.46	3.95	94.03%	3.72	79.6%	3.20	52.40	3.67	3.45	2.99	106.07	0.9282	0.0017
56	55.30	3.87	93.99%	3.64	78.6%	3.12	51.23	3.59	3.37	2.91	108.98	0.9265	0.0017
57	54.37	3.81	94.19%	3.58	78.4%	3.05	50.28	3.52	3.31	2.84	111.82	0.9247	0.0017
58	53.08	3.72	94.20%	3.50	77.0%	2.96	48.99	3.43	3.23	2.75	114.56	0.9230	0.0017
59	51.26	3.59	94.22%	3.38	75.7%	2.86	47.23	3.31	3.11	2.65	117.21	0.9212	0.0017
60	49.33	3.45	94.00%	3.25	70.4%	2.81	45.36	3.18	2.98	2.60	119.81	0.9195	0.0017
61	47.85	3.35	94.03%	3.15	68.1%	2.70	43.92	3.07	2.89	2.49	122.30	0.9178	0.0017
62	46.14	3.23	93.89%	3.03	67.0%	2.56	42.27	2.96	2.78	2.36	124.66	0.9160	0.0017
63	44.47	3.11	93.79%	2.92	64.7%	2.28	40.65	2.85	2.67	2.10	126.76	0.9143	0.0017
64	42.79	3.00	93.69%	2.81	62.5%	2.15	39.05	2.73	2.56	1.97	128.73	0.9126	0.0017
65						2.03				1.86	130.59		
66						1.89				1.73	132.31		
67						1.75				1.60	133.92		
100													
60 weeks			157.87		132.78		166.08	150.62	126.76				8.05
61 Weeks		177.23	161.02		134.93		169.15	153.51	128.73				8.22
63 weeks													
64 Weeks		186.57					177.69						

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APPENDIX B - WEEKLY SCHEDULE

Weekly schedule for 2018

Week no.	Starting Monday	Reporting month	Weeks/ month
1	01 Jan 18	January	5
2	08-Jan-18	2018	
3	15-Jan-18		
4	22-Jan-18		
5	29-Jan-18		
6	05-Feb-18	February	4
7	12-Feb-18	2018	
8	19-Feb-18		
9	26-Feb-18		
10	05-Mar-18	March	4
11	12-Mar-18	2018	
12	19-Mar-18		
13	26-Mar-18		
14	02-Apr-18	April	5
15	09-Apr-18	2018	
16	16-Apr-18		
17	23-Apr-18		
18	30-Apr-18		
19	07-May-18	May	4
20	14-May-18	2018	
21	21-May-18		
22	28-May-18		
23	04-Jun-18	June	4
24	11-Jun-18	2018	
25	18-Jun-18		
26	25-Jun-18		
27	02-Jul-18	July	5
28	09-Jul-18	2018	
29	16-Jul-18		
30	23-Jul-18		
31	30-Jul-18		
32	06-Aug-18	August	4
33	13-Aug-18	2018	
34	20-Aug-18		
35	27-Aug-18		
36	03-Sep-18	September	4
37	10-Sep-18	2018	
38	17-Sep-18		
39	24-Sep-18		
40	01-Oct-18	October	5
41	08-Oct-18	2018	
42	15-Oct-18		
43	22-Oct-18		
44	29-Oct-18		
45	05-Nov-18	November	4
46	12-Nov-18	2018	
47	19-Nov-18		
48	26-Nov-18		
49	03-Dec-18	December	5
50	10-Dec-18	2018	
51	17-Dec-18		
52	24-Dec-18		
53	31-Dec-18		

Weekly schedule for 2019

Week no.	Starting Monday	Reporting month	Weeks/ month
1	07 Jan 19	January	4
2	14-Jan-19	2019	
3	21-Jan-19		
4	28-Jan-19		
5	04-Feb-19	February	4
6	11-Feb-19	2019	
7	18-Feb-19		
8	25-Feb-19		
9	04-Mar-19	March	4
10	11-Mar-19	2019	
11	18-Mar-19		
12	25-Mar-19		
13	01-Apr-19	April	5
14	08-Apr-19	2019	
15	15-Apr-19		
16	22-Apr-19		
17	29-Apr-19		
18	06-May-19	May	4
19	13-May-19	2019	
20	20-May-19		
21	27-May-19		
22	03-Jun-19	June	4
23	10-Jun-19	2019	
24	17-Jun-19		
25	24-Jun-19		
26	01-Jul-19	July	5
27	08-Jul-19	2019	
28	15-Jul-19		
29	22-Jul-19		
30	29-Jul-19		
31	05-Aug-19	August	4
32	12-Aug-19	2019	
33	19-Aug-19		
34	26-Aug-19		
35	02-Sep-19	September	5
36	09-Sep-19	2019	
37	16-Sep-19		
38	23-Sep-19		
39	30-Sep-19		
40	07-Oct-19	October	4
41	14-Oct-19	2019	
42	21-Oct-19		
43	28-Oct-19		
44	04-Nov-19	November	4
45	11-Nov-19	2019	
46	18-Nov-19		
47	25-Nov-19		
48	02-Dec-19	December	5
49	09-Dec-19	2019	
50	16-Dec-19		
51	23-Dec-19		
52	30-Dec-19		