SOUTH AFRICAN POULTRY ASSOCIATION
SUID-AFRIKAANSE PLUIMVEEVERENIGING
Founded 1904 / Gestig 1904

BROILER INDUSTRY STATS SUMMARY FOR 2016

INDUSTRY STATISTICS

1. Price comparison of protein sources

For the first time, chicken was the cheapest animal protein source, with an average realisation (less all discounts, rebates and secondary distribution) of R18.92/kg. Eggs were marginally more expensive at R18.97/kg. The average beef abattoir selling prices for classes A2/A3 and C2/C3 were R37.79 and R31.11/kg respectively. The average abattoir price for pork (all classes) was R24.35/kg. The producer prices and the annual percentage increases are shown in Figure 1.

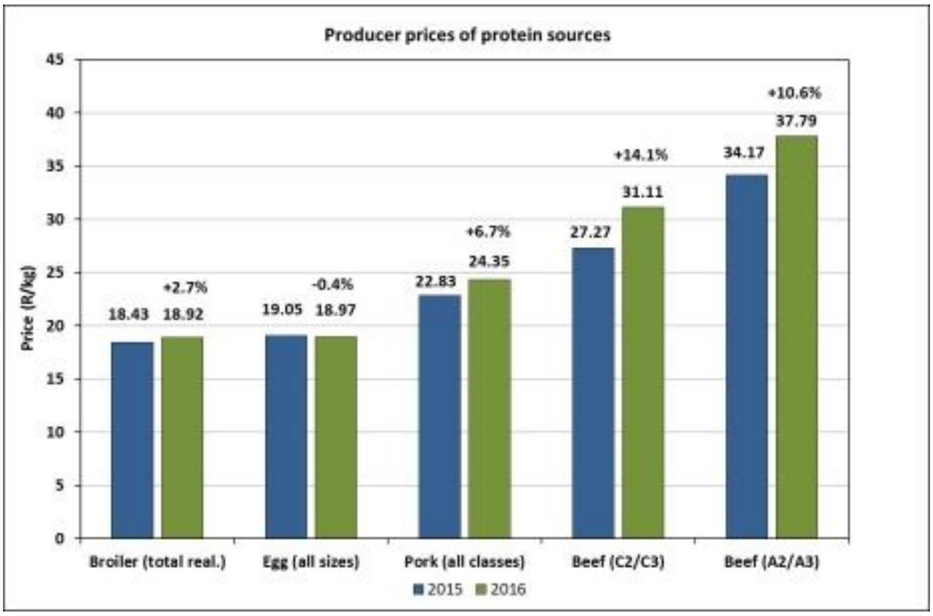

Figure 1: Comparison of the producer prices of different protein sources

2. International price competitiveness

US Department of Agriculture (USDA) figures show that the average price in the northeast region of the USA for leg quarters was 30.24c/lb and for skinless, deboned breast 130.39c/lb. Compared to 2015, the prices have decreased by 2.0% and 12.1% respectively. Depicted in rands and using the average exchange rate of R14.70 to the US dollar for the year 2016, the leg quarter price equates to R9.82/kg and the skinless, deboned breast price to R42.42/kg. The South African price for mixed IQF portions was R17.00/kg and for filleted breast R25.23/kg.

Figure 2 shows the trend in these prices since 2012 and helps to explain why the USA is keen to dump the bone-in darker meat portions in South Africa. The leg quarters have shown a 40% drop in price over the past 4 years, compared to a 9% decrease in the price of deboned breasts.

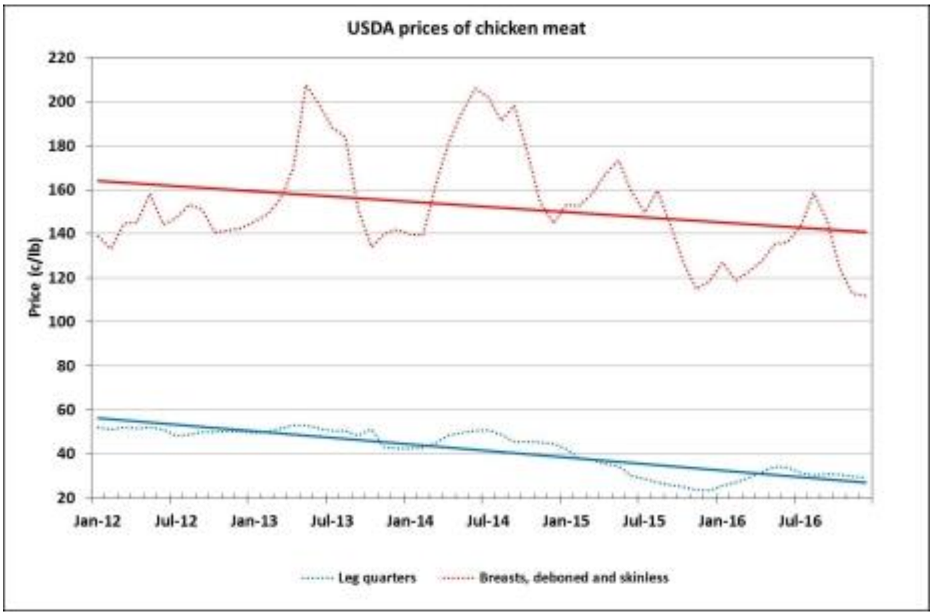

Figure 2: Chicken prices in the USA (source: USDA)

Average prices (c/lb) for the various portions are given in the table below.

Portion	2015	2016	% change
Whole broiler	90.67	84.55	-6.7
Breasts, deboned and skinless	148.36	130.39	-12.1
Tenderloins	154.70	171.29	10.72
Breast with ribs	109.08	96.05	-11.9
Breast (line run)	92.64	89.71	-3.2
Legs	38.27	38.31	0.1
Leg quarters	30.86	30.24	-2.0
Drumsticks	37.68	35.30	-6.3
Thighs	61.50	49.58	-19.4
Thighs, deboned and skinless	109.06	110.20	1.0
Wings	173.10	156.68	-9.5

3. **Volume and growth**

Two methods are used to predict broiler production volumes and growth:

- Model 1: The broiler forecasting model uses the number of day-old female parent placements supplied by the industry to predict the size of the breeder flocks, the number of day-old broiler chicks hatched and the number of broilers slaughtered;
- Model 2: A simpler model uses the number of day-old broiler chicks hatched supplied by the industry to predict the number of broilers slaughtered.

Both models are reliant on accurate and regular statistics being submitted by the industry. When a producer stops supplying data, the models immediately become less accurate because estimates based on historical trends need to be made for missing data.

The forecasting models were rerun towards the end of the year, following the submission of missing historical data from several industry role players. The inclusion of this data led to greater accuracy and reliability of the model output. SAPA is indebted to these producers – and indeed to the regular contributors – because of the crucial role the information supplied to the DTI and ITAC plays in dealing with the flood of imports.

4. Broiler breeders

The average number of parent males and females in rearing during 2016 was 3.921 million per week; a decrease of 27 400 birds (-0.7%) compared to 2015. Using a genetic pyramid, the estimated number of grandparent and great-grandparent stock in South Africa was 242 000 hens.

An average broiler breeder laying flock of 7.126 million hens was estimated for 2016. This showed an increase of 126 000 hens (+1.8%) compared to 2015. Figure 3 shows the changes in the size of the broiler breeder laying flock since 2012. Figure 4 illustrates the total number of day-old broiler chicks hatched annually.

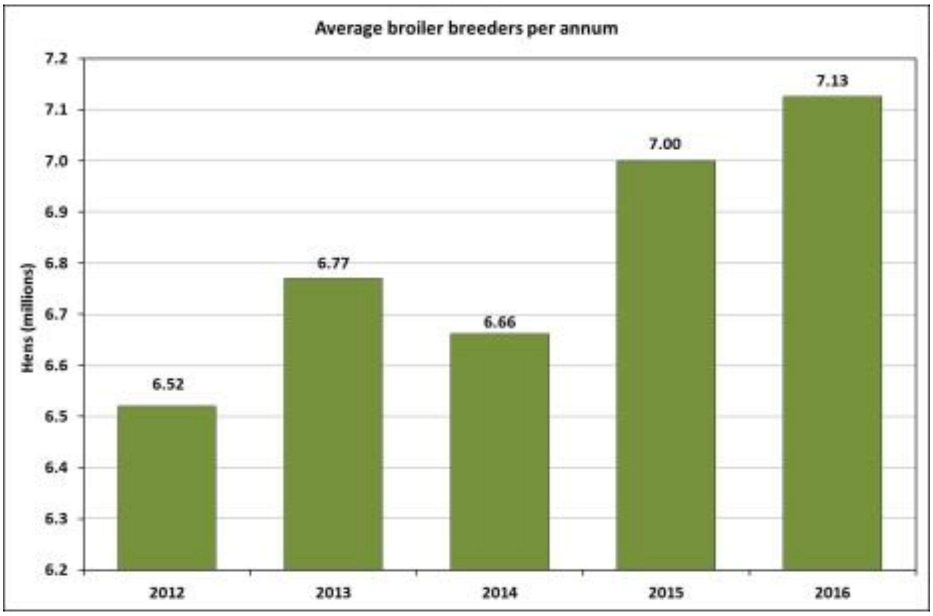

Figure 3: The size of the broiler breeder flock

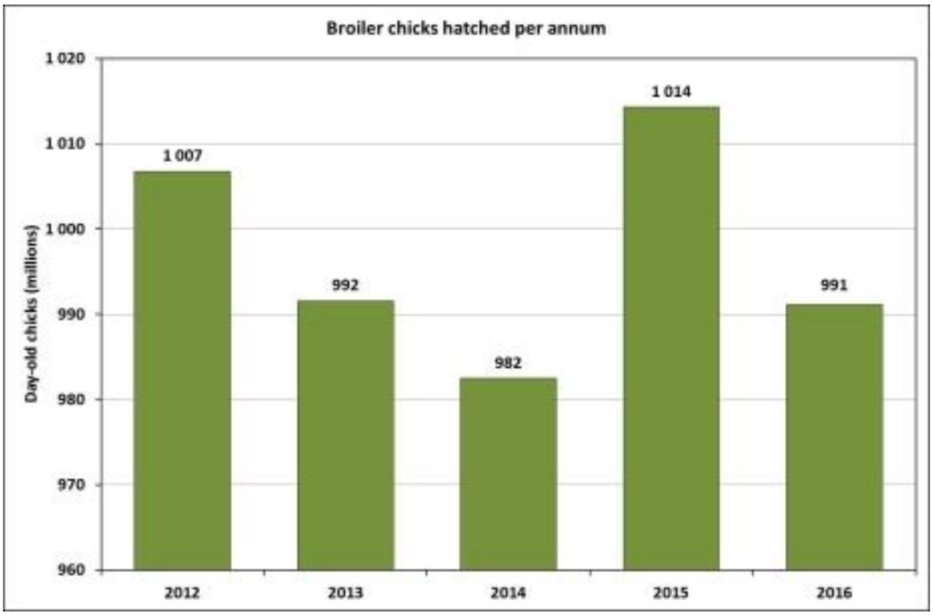

Figure 4: Annual day-old chick production

5. Broiler production

A total of 935.6 million broilers were slaughtered in 2016; a decrease of 29.4 million (-3.0%) compared to the previous year. Bird numbers are summarised in the table below.

Bird numbers for the broiler industry (millions)

Year	Broiler parents		Breeders	Broiler chicks hatched		Broilers	Broilers slaughtered	
	Rearing	Laying	Per week	Per week	Per annum	Per week	Per week	Per annum
2015	3.949	7.000	10.948	19.444	1 014.292	94.878	18.501	964.994
2016	3.921	7.126	11.047	18.972	991.137	92.094	17.892	935.572
Change	-0.027	0.126	0.099	-0.472	-23.156	-2.784	-0.610	-29.422
% change	-0.69	1.80	0.90	-2.43	-2.28	-2.93	-3.29	-3.05

6. Prospects for 2017

Based on the number of day-old parent pullets placed to December 2016, the size of the breeder laying flock is expected to decrease by 1.9% to 6.99 million during the first 4 months of 2017. The forecasting model predicts a potential hatch to June 2017 of 21.41 million chicks per week and a potential production of broilers to July 2017 of 20.38 million per week. These figures do not take exports into account, nor the possibility that some fertile eggs may not be incubated as the industry attempts to adjust to the oversupply situation.

7. Gross value

The gross value of primary agricultural production from poultry meat (inclusive of all types of poultry) for the period 2016 was R36.67 billion, reflecting an annual decrease of 5.5% (source: DAFF). Poultry meat contributed 30.5% to the gross value of animal products (down from 34.1% in 2015) and 14.1% to all agricultural production (down from 16.6%).

8. **Input costs**

The average broiler feed price for 2016 was R5 601.52/tonne. It increased by 13.5% in comparison with 2015. The broiler feed price includes distribution, but excludes medication, additives and VAT. The movement in the feed price is shown in Figure 5.

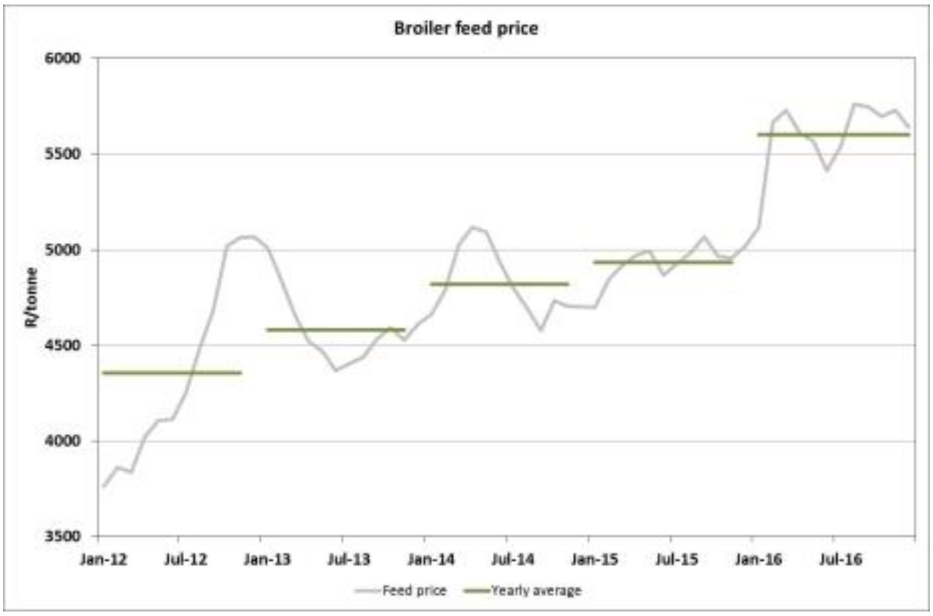

Figure 5: Broiler feed price

The year-on-year percentage changes in the broiler feed price and the producer price are shown in Figure 6. The graph clearly indicates why margins were under enormous pressure during 2012. While the feed price escalated by 30.5%, the broiler producer price increased by only 2.5%. After a good recovery during the next three years, a similar pattern emerged in 2016. The feed price increased by 13.5%, whereas the producer price increased by only 2.7%.

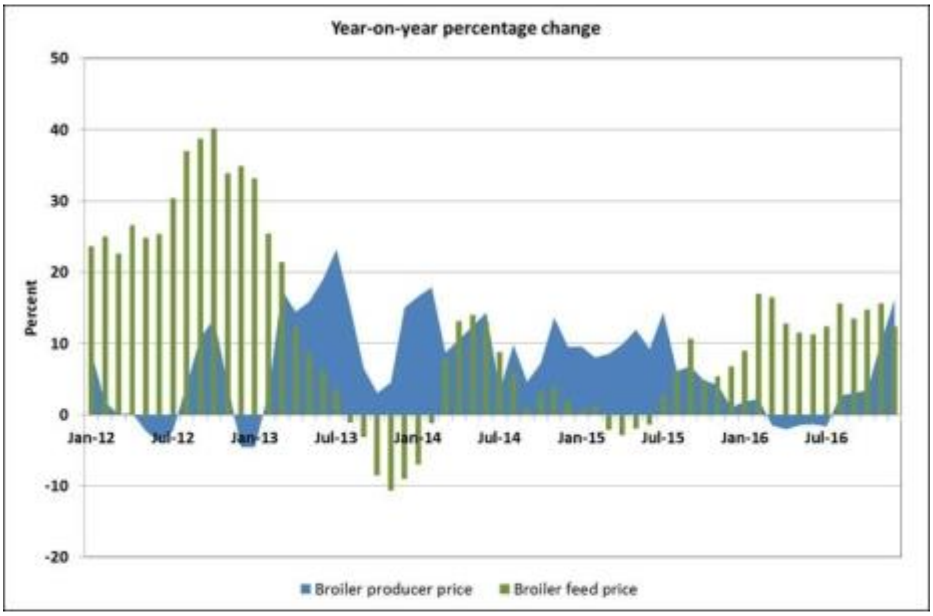

Figure 6: Yearly percentage change in chicken price and broiler feed price

9. **Feed usage**

The feed usage for broiler breeders and broilers is summarised in the table below.

Feed usage for the broiler industry (tonnes)								
Year	Broiler parents		Total breeding stock		Broilers		Total broiler industry	
	Rearing	Laying	Per annum	Per week	Per annum	Per week	Per annum	Per week
2015	100 853	434 398	535 250	10 265	2 878 576	55 206	3 413 826	65 471
2016	100 522	443 463	543 985	10 433	2 795 675	53 616	3 339 660	64 048
Change	-330	9 065	8 735	168	-82 901	-1 590	-74 166	-1 422
% change	-0.33	2.09	1.63	1.63	-2.88	-2.88	-2.17	-2.17

According to the Animal Feed Manufacturers Association (AFMA), national feed sales from 1 April 2015 to 31 March 2016 for breeders and broilers amounted to 3 307 667 tonnes; a 1.8% year-on-year decrease. These figures exclude non-members of AFMA. For the same period, SAPA estimated feed consumption at 3 401 994 tonnes; 94 327 tonnes (+2.9%) more than actual feed sales.

10. **Meat production**

According to SAPA's estimates for 2016, total production of poultry meat (all saleable products) was 1 677 844 tonnes. This was made up of 1 611 734 tonnes (96.06%) from commercial production, an estimated 64 576 tonnes (3.85%) from subsistence farming, and 1 534 tonnes (0.09%) from ducks. Chicken production therefore amounted to 1 676 310 tonnes.

Commercial production (including offal) can be further broken down into:

- Broiler meat (all saleable products): 1 537 519 tonnes;
- Cull broiler breeder males and females: 35 092 tonnes;
- Cull layer hens: 39 123 tonnes.

11. **Consumption**

DAFF estimates of poultry consumption for 2016 amounted to 2 199 810 tonnes. The per capita consumption of poultry meat was 39.05 kg, compared to 39.18 kg in 2015. DAFF bases its calculations on production data provided by SAPA, but uses trade statistics from a source other than the South African Revenue Service (SARS).

According to SAPA's calculations, poultry consumption amounted to 2 146 808 tonnes. The per capita consumption of poultry meat for 2016 was 38.58 kg, compared to 38.50 kg in 2015. This includes the sale of spent hens from the broiler breeder and commercial layer industries, the sale of all the edible offal, imports, as well as other poultry species. The per capita consumption of chicken meat for 2015 and 2016 was 38.21 kg and 38.08 kg respectively.

Consumption of chicken meat (all saleable products) amounted to 2 118 698 tonnes in 2016. The per capita consumption of chicken meat for the year was 38.07 kg, compared to 38.21 kg in 2015 (source: SAPA).

Poultry imports made up 26% of poultry meat consumption, in comparison with 23% in 2015.

INDUSTRY TURNOVER

The estimated turnover from the broiler industry is shown in the table below.

Year	DOC industry		Broiler industry				Total
	Price (R/doc)	Turnover (R million)	Producer price (R/kg)	Turnover (R million)	Cull price (R/bird)	Turnover (R million)	Turnover (R million)
2015	4.31	4 371.6	18.43	31 803.7	34.46	285.2	36 460.5
2016	4.57	4 529.5	18.92	31 715.8	35.15	294.5	36 539.8
Change	0.26	157.9	0.49	-87.9	0.69	9.3	79.3
% change	6.0	3.6	2.7	-0.3	2.0	3.3	0.2

DOC = day-old chick

SMALL-SCALE BROILER FARMERS

These statistics summarise quarterly surveys conducted by Silverpath Consulting. All prices exclude VAT.

1. **Hatcheries**

An average of six hatcheries hatching day-old chicks, from five different provinces, responded to the survey in each quarter of 2016. The average provincial representation in Gauteng and Limpopo was two each, and one each in the Free State, KwaZulu-Natal and North West. On average two thirds of the hatcheries were owned by females, and one third by males. A total of 1 634 039 fertile eggs were produced for incubation in 2016. Eggs were also purchased, totalling 774 630 eggs per annum, at a weighted average price of R3.02 per fertile egg.

The total number of broiler chicks sold per annum was 1 903 282 at a weighted average selling price of R5.80 per chick. The total value of the broiler chick sales was R10 873 983 in 2016.

2. **Broiler producers**

An average of 209 broiler farmers, from all 9 provinces, responded to the survey in 2016. The average provincial representation of small-scale broiler farms across the quarters was in Limpopo (74), Gauteng (43), KwaZulu-Natal (38), Mpumalanga (14), Free State (12), Eastern Cape (11), North West (10), Northern Cape (6) and Western Cape (2). On average the farms had greater female (58%) than male (42%) ownership.

- **Day-old chicks**

The average purchase price of a day-old chick in 2016 was R6.62. (Note: these purchases were not necessarily made from the hatcheries taking part in the survey.) The sum of chicks placed per cycle in each quarter was 1 188 834, and the average across the quarters of chicks placed per cycle was 1 404. The average utilisation of the broiler farms in 2016 was 43.3% of capacity. This declined from 50.8% in Q1 to 39.4% in Q4 – evidence of the difficult year that 2016 was. The average mortality rate per cycle was 6.9%.

- **Broiler feed**

Ninety-seven percent of the respondents bought feed in bags in 2016, while the remaining two percent bought in bulk and one percent manufactured their own feed. The prices are summarised in the table below and exclude VAT and transport.

Feed	2016 R/50 kg bag	2016 R/tonne
Broiler starter	326.60	5 537.06
Broiler grower	310.27	5 293.52
Broiler finisher	298.73	5 138.77

Total bag feed purchased in 2016 by small-scale broiler farmers came to 6 448.4 tonnes, which equates to approximately 618 bags per farmer for the year. The annual total value of bag feed purchases was R34 687 826. Bulk feed purchases totalled 4 002.0 tonnes in 2016, at a value of R9 927 200.

- **Broiler sales**

The average cycle length (from placement to placement) was 10.5 weeks, and the average age at which the broilers were sold live was 5.9 weeks (41 days).

The sales figures for 2016 are summarised in the table below.

Marketing channel	% of producers	Quantity	Weighted avg. price	Total value
Live sales	84.7%	1 415 684	R48.51/bird	R55 557 827
Abattoir	15.3%	316 649	R24.39/kg R52.89/bird	R6 553 150

The average slaughter fee charged by abattoirs was R5.29 per bird. The average weight at slaughter was 1.98 kg.

3. **Contract growers**

- **Day-old chick and broiler production**

An average of 28 contract growers, from 5 different provinces, responded to the survey in 2016. These farms were located in Limpopo (10), North West (8), Mpumalanga (6), Gauteng (3) and Free State (1). On average the farms had greater male (74%) than female (26%) ownership.

A total of 15 405 521 chicks were placed per cycle in 2016, with a farm average of 137 310 chicks placed per cycle in each quarter of 2016. The total capacity utilisation of the broiler farms was 84.6%. The average mortality rate on the contract growers' farms was 4.3%. The average age at slaughter was 4.8 weeks (33.9 days).

- **Broiler feed**

An average of 2.58 kg of feed was consumed per bird placed in 2016.

4. **Abattoirs**

An average of seven abattoirs per quarter responded to the survey in 2016. These businesses were located in Gauteng and Northern Cape (two each), and the Free State, Mpumalanga, North West and Western Cape (one each). On average slightly more of the abattoirs were owned by males than females.

The average number of birds slaughtered per day in 2016 was 1 189. The seven abattoirs operated on average four days per week. Their average slaughter fee was R5.41 per bird and the average selling price for dressed birds was R29.33/kg or R53.20/whole bird.

TRADE

1. **Annual poultry imports**

According to the audited figures of SARS (verified), annual poultry imports for 2016 totalled 560 155 tonnes, an increase of 81 708 tonnes (+17.1%) compared to 2015. Chicken imports amounted to 528 506 tonnes; this represented 94.4% of total poultry imports and a 15.6% annual increase. Of the total chicken meat imported, 99.9% was frozen.

Brazil was the main country of origin of poultry imports, accounting for 41.7% or 233 787 tonnes. The Netherlands was in second position, with 19.7% or 110 344 tonnes, followed by the UK (8.2%; 45 657 tonnes), Spain (7.1%; 39 620 tonnes) and the USA (4.7%; 26 573 tonnes). As a whole the EU contributed 48.1% to poultry imports compared to 41.7% in 2015; this followed the lifting of several trade bans on EU countries that had been affected by HPAI.

Poultry imports equated to 33% of domestic poultry production, in comparison with 28% in 2015.

2. **Frozen broiler meat imports**

Frozen broiler meat imports totalled 528 108 tonnes, an increase of 15.6% compared to the 2015 imports of 456 954 tonnes (Figure 7).

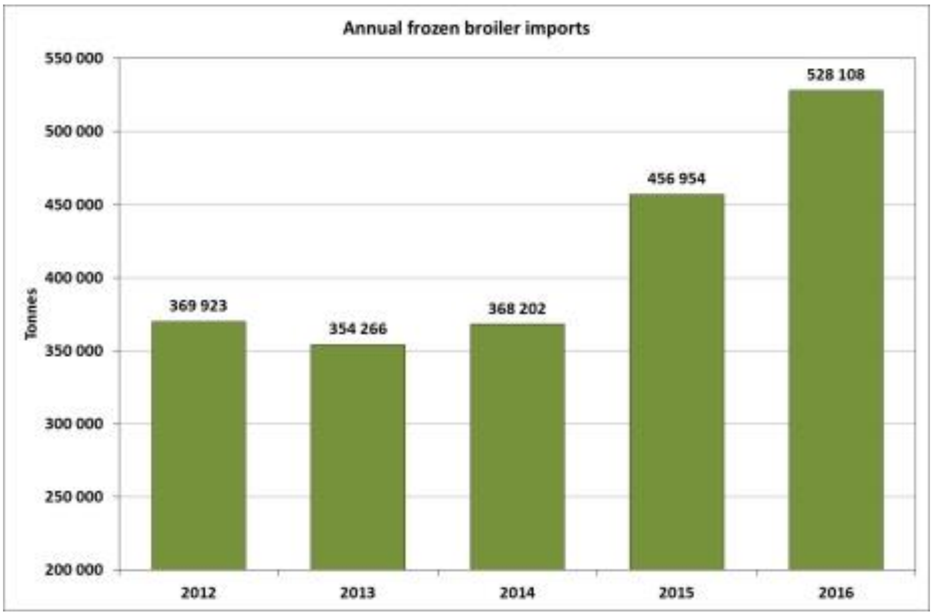

Figure 7: Annual frozen broiler meat imports from all countries

The table below shows the breakdown of the frozen imports into the different products. Of the 239 589 tonnes of bone-in portions, 64.5% were leg quarters, 15.3% wings, 13.3% drumsticks, 3.7% thighs and 3.2% other bone-in cuts.

Frozen meat imports	**Tonnes**	**%**
Mechanically deboned meat (MDM)	195 253	37.0
Bone-in portions	239 589	45.4
Whole frozen birds	9 597	1.8
Carcasses	21 416	4.0
Boneless portions	12 506	2.4
Offal	49 747	9.4
Total	**528 108**	**100.0**

Frozen broiler imports from Brazil decreased from 225 850 tonnes in 2015 to 218 036 tonnes (-3.5%) in 2016 (Figure 8). Brazil's contribution to total frozen chicken imports decreased from 50.4% in 2015 to 41.2% in the year under review. These imports were mostly MDM (170 045 tonnes; 78% of total Brazilian imports of frozen chicken).

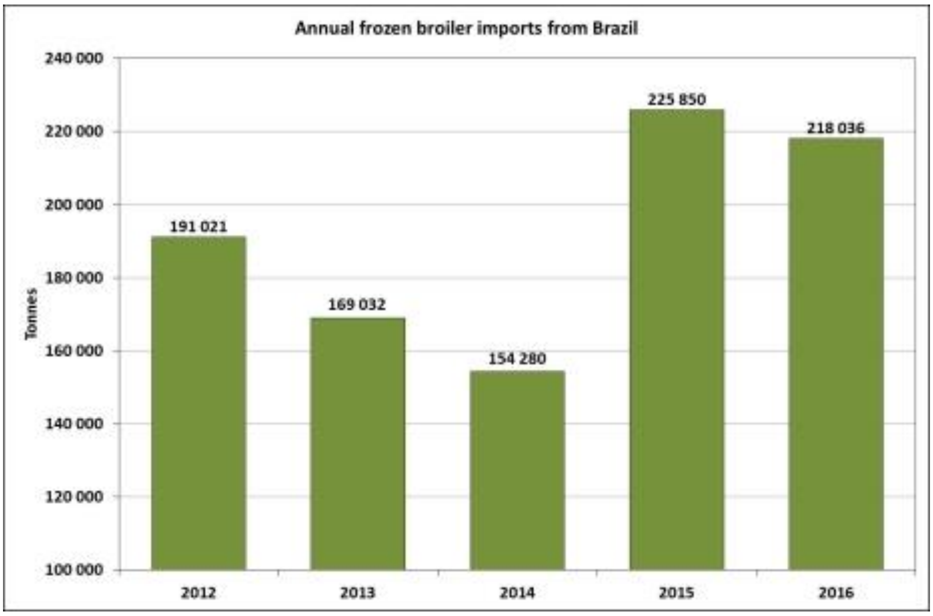

Figure 8: Frozen broiler imports from Brazil

EU imports of frozen chicken increased from 194 685 tonnes to 262 352 tonnes; a 34.8% increase over 2015 levels (Figure 9), and accounted for 49.7% of total frozen chicken imports. Imports from France, Germany and Hungary were impacted by the temporary trade bans enforced in reaction to outbreaks of HPAI in these countries during 2016, and bans imposed in late 2016 will affect the Netherlands, the UK, Denmark and Poland going forward. Frozen bone-in portions made up 74.1% of the EU imports and the EU was the source of 81.1% of all bone-in imports into South Africa in 2016 (no change from 2015).

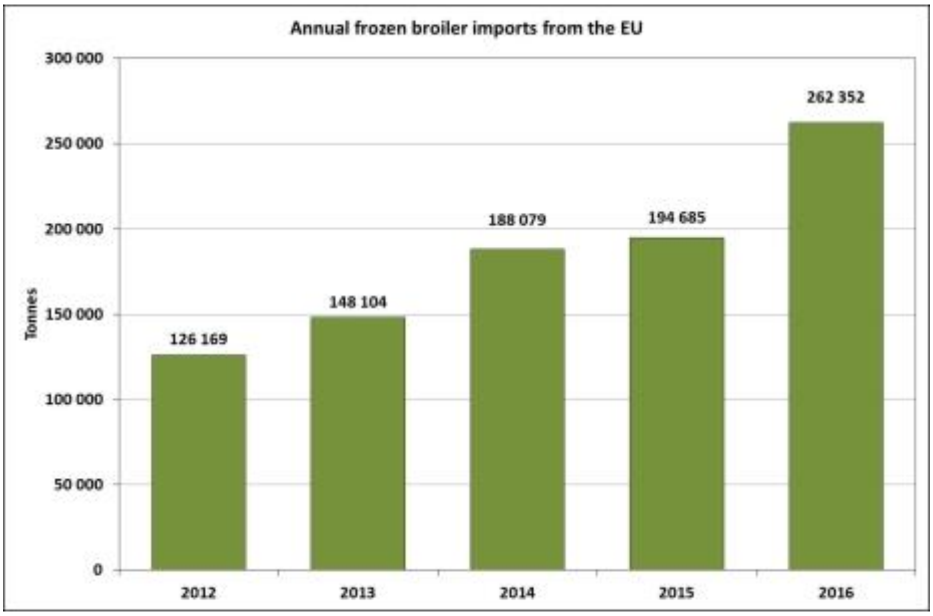

Figure 9: Frozen broiler imports from the EU

In 2016, the Netherlands was the biggest contributor to EU frozen broiler imports (42.1%), followed by the UK (16.1%), Spain (14.3%), Belgium (9.3%), Ireland (5.6%), Hungary (4.8%) and Denmark (3.7%). Poland started exporting to South Africa in August, and accounted for 1.8% of frozen chicken imports in the year under review.

3. Value of imports

On a free on board (FOB) basis, the value of imports for 2016 amounted to R5.48 billion; a 17.2% increase in comparison with the value of total poultry imports for 2015. The value of chicken imports amounted to R5.02 billion; a 16.8% increase over 2015. The main contributors were frozen bone-in portions at R3.363 billion and frozen MDM at R825 million; 67.0% and 16.4% of the value of chicken imports respectively.

4. **Poultry exports**

Poultry meat exports amounted to 74 021 tonnes in 2016; an increase of 2.2% compared to 2015 (Figure 10). The FOB value of these exports was R1.361 billion. A total of 68 958 tonnes were chicken exports at an FOB value of R1.184 billion. Poultry exports made up 4.4% of poultry production in 2016, compared to 4.2% in 2015.

The main destination countries for poultry exports were Mozambique (25.6%), Lesotho (23.1%), Namibia (22.7%), Zambia (7.1%), Zimbabwe (6.2%), Botswana (5.5%) and Swaziland (2.7%). The remaining 37 destination countries collectively received 7.1% of the exports.

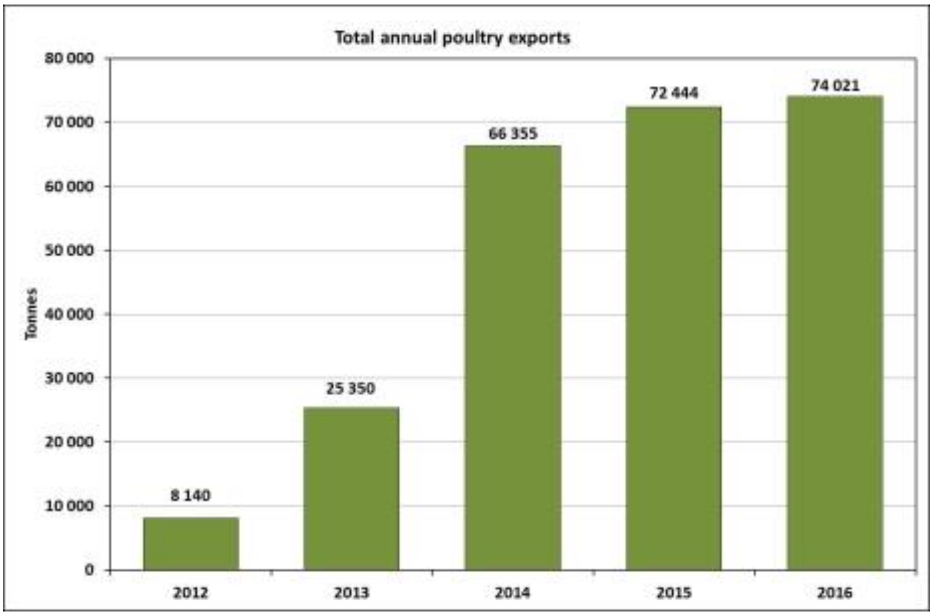

Figure 10: Annual poultry meat exports

THE GLOBAL BROILER INDUSTRY

Globally, broiler production was forecasted by the Food and Agriculture Organization to increase by 1.1 % in 2016 to 116.2 million tonnes (source: *Food Outlook* (June 2016)). Trade in poultry products was expected to increase by 3.5% to 12.7 million tonnes. Brazil, the USA and Thailand were expected to enjoy the biggest growth in trade volumes in 2016, making the most of low global feed prices and increasing demand in markets such as Saudi Arabia, South Africa, Japan, Vietnam, the United Arab Emirates and Cuba.

The USDA predicted that US broiler production would increase by 1.63% in 2016 to 18.5 million tonnes and by 2.1% in 2017. Broiler exports, which reduced by 14% between 2014 and 2015 because of the AI outbreak, rebounded by 5.46% to 3.03 million tonnes in 2016, closing the gap on the 3.3 million tonnes exported in 2014 before the outbreak. The USDA predicts a 3.9% growth in US broiler exports in 2017, to 3.15 million tonnes.

Outbreaks of both HPAI and low pathogenic avian influenza (LPAI) continued to occur around the world. In Europe there were reported cases in wild birds, ducks, and commercial and backyard flocks in Austria, Bulgaria, Croatia, Denmark, Finland, France, Germany, Greece, Hungary, Italy, the Netherlands, Poland, Slovakia, Sweden, Switzerland, and the UK. Outbreaks also occurred in the USA, Canada and Mexico. On the African continent, cases were confirmed in Algeria, Burkina Faso, Cameroon, Côte d'Ivoire, Egypt, Ghana, Niger, Nigeria, and Togo. LPAI was reported in ostriches in South Africa. In Asia, Bangladesh, Bhutan, Cambodia, China, Chinese Taipei, Hong Kong, India, Israel, Iraq, Japan, South Korea, Laos, Lebanon, Myanmar, Russia and Vietnam were affected.

The USDA predicted China would import 400 000 tonnes of broiler products in 2016 to satisfy the market's preference for wings and legs. By the end of November 2016, China had imported 451 000 tonnes of poultry meat from Brazil alone. Russia planned to begin exporting to China by the end of 2016, following the lifting of phytosanitary restrictions earlier in the year.

Domestic production in the EU has been supported by stable poultry consumption and strong export markets to Africa and Asia, which may now be disrupted in 2017 as more and more cases of HPAI are reported around Europe. In an HPAI-free scenario, European poultry production is forecasted to increase by 2.1% in 2017. Poultry prices in the EU have been facing downward pressure for some time because of rising production, maturing consumption within the EU and trade competition from the USA and Brazil. These low prices and the weak euro have supported the growth in exports.