SOUTH AFRICAN POULTRY ASSOCIATION

2019 INDUSTRY PROFILE

SOUTH AFRICAN POULTRY ASSOCIATION
Founded 1904

Table of Contents

INTRODUCTION

The poultry industry remains the largest single contributor to the agricultural sector in South Africa. In 2019, some 20.0 % of the total agricultural gross value and 41 % of animal product gross value stemmed from poultry production. The industry provides direct and indirect employment to over 110 000 people; is the second largest consumer of maize; and supports many peripheral businesses (including the feed industry) and those downstream in the value chain.

The year 2019 commenced in sombre mood, as poultry producers faced steep increases in animal feed prices and ongoing constrained consumer spending. Broiler farms campaigned for government intervention to control cheap poultry imports and egg producers found themselves in a situation of oversupply and decreasing returns. Although broiler imports decreased by 4.7 % in 2019, levels remained 5.6 % above the five-year average. Although per capita consumption of chicken continues to climb, spare domestic capacity has been mothballed over the past decade as cheap, frozen imports and predatory pricing have put severe pressure on bottom lines. Jobs, which could be created locally, are effectively being outsourced to the European Union, Brazil and the US.

In October 2019, the Eastern Province was declared a drought disaster area, following five years of devastating water shortages. Dam levels in KwaZulu-Natal, the Free State, Mpumalanga and Limpopo did not increase significantly in 2019 over 2018 levels. Despite this, the 2019/2020 maize crop is forecast to be about 29.1 % higher than last year's crop, at 14.56 million tonnes. The domestic soybean harvest is also expected to be up 6.2 % at 1.243 million tonnes.

It wasn't all doom and gloom for broiler producers in 2019. The Bureau for Food and Agricultural Policy (BFAP) reported on research conducted by the Netherland's Wageningen University which confirmed that South Africa is indeed an efficient producer of broiler meat. South African farmers placed in joint 6th out of 16 major chicken-producing countries. Importantly, the report disabused the notion that cheap poultry imports reduce the retail prices experienced by consumers.

In November 2019, Government, the broiler industry and associated role players came together to launch the Poultry Sector Master Plan. The Master Plan is an exciting initiative which aims to support growth and transformation in the local industry. A number of targets have been set which include growing production by a minimum of 10 % within four years. An investment of R1.7 billion will be made to establish 50 further commercial-scale contract farmers as part of transformation efforts. Further investment will give rise to additional jobs and opportunities to export processed cooked product and breast meat to European and Middle Eastern markets. Government's commitment to the Master Plan and the survival of the domestic poultry industry will be measured by the percentage tariff on bone-in and boneless portions agreed to early in 2020.

The South African egg industry experienced a year characterised by rising feed prices and an imbalance in supply and demand which suppressed egg prices. The gap between producer and retail prices widened further and per capita consumption of eggs remains well below potential. There was a collective sigh of relief amongst egg farmers when, for the second winter in a row, highly pathogenic avian influenza (HPAI) did not rear its head. Nevertheless, commercial

producers continued to safeguard their businesses by improving farm biosecurity, as occasional outbreaks occur on commercial ostrich farms. There were eleven reported outbreaks of H5N8 in South African commercial ostriches in 2019. Only one case of H5N8 HPAI in wild birds has been reported to the OIE.

THE SOUTH AFRICAN POULTRY ASSOCIATION

1.1 History

One of South Africa's oldest agricultural organisations, the South African Poultry Association (SAPA) started off in Kimberley in 1904 as a body of poultry hobbyists. The Association catered to the needs of the various poultry clubs by regulating the rules and appointing judges for the popular poultry shows and egg laying tests staged at the time.

Over the years, the poultry industry evolved from what was essentially a backyard industry, with thousands of people keeping small flocks and only a few large producers, to the mature, efficient and highly productive commercial operations we see today.

Responding to the needs of its members, SAPA served as the industry's collective voice to the public and to government. Strengthening its authority, credibility and legitimacy, a South African Poultry Breeders Register was established in 1926, and ten years later, government gave the assurance that it recognised SAPA as the official representative organisation of the country's poultry industry.

As the industry has changed, so too has SAPA adapted to meet the industry's changing needs. The Association is involved in a continuous process of identifying issues affecting the industry and taking positive steps to deal with these.

1.2 SAPA's mission

For years, SAPA has represented small scale, emerging and larger commercial poultry farmers in the following sectors: the broiler and egg industries, the breeding/day-old chick supply industry, and smallholder and developing farmers. From mid-2015, producers from the Chick Producers and the Developing Poultry Farmers Organisations were absorbed into their respective product value chains, falling under either the Broiler or Egg Organisation.

With renewed commitment from a large number of broiler and egg producers in the wake of the 2017 HPAI outbreak, SAPA was provided an opportunity to become a stronger representative body for the industry. The Egg and Broiler Organisations met early in 2018 and the result was a new organisational structure, with revised collection models.

SAPA now consists of two independent organisations, each with its own board and general manager. The Broiler and Egg boards take full responsibility for their administrative functions and their general managers report to the board of directors.

The SAPA Board retained the governance and fiduciary responsibilities of SAPA. Technical committees (consisting of two work groups and two sub-committees) address issues of poultry

health and welfare, food compliance, training, and research. The work groups and committees involve key stakeholders such as producer personnel, the Departments of Health (DoH) and Agriculture, Land Reform and Rural Development (DALRRD), the Consumer Goods Council of South Africa, the South African Veterinary Association, academics and consultants.

The objectives of the streamlined South African Poultry Organisation are as follows:

To establish and maintain national divisions of the Association in South Africa and enable members to co-operate effectively for the development of the broader poultry industry;

To co-ordinate the views, aims and efforts of the national Organisations in the interests of the broiler poultry industry in South Africa;

To advance and improve the broader poultry industry in South Africa by embracing and co-ordinating the objectives of the national Organisations and particularly by:

- Protecting the broader poultry industry from adverse legislation and any other aggression and by initiating, promoting and assisting with the promulgation of legislation and regulations which are beneficial to the broader poultry industry;
- Encouraging poultry education, conducting and/or assisting in investigational work of a practical and scientific nature and the organisation of seminars and courses;
- Facilitating and providing guidance in respect of the transformation of the broader poultry industry in line with applicable government policies, objectives and legislation;
- Forming public private partnerships with government bodies and other public bodies as may be required from time to time;
- Representing the Broader Poultry Industry on appropriate international bodies and forums for purposes of developing global regulatory and trade frameworks which are to the benefit of the Broader Poultry Industry;
- Publishing literature, journals, pamphlets, and circulars dealing with all matters pertaining to the broader poultry industry; and conducting communications on behalf of the industry;
- Establishing Codes of Practice in relation to the broader poultry industry;
- Promoting the consumption of poultry products in South Africa;
- Assisting in the opening up and maintaining of export markets for South African egg and poultry meat products;
- procuring the compilation of statistics using information received from Members and the broader poultry industry, for purposes of maintaining suitable databases for use in the furtherance of the aims of the Association;
- acting as arbitrator in the settlement of any dispute between Members which may arise in any matter pertaining to the broader poultry industry, in accordance with and subject to the rules;
- dealing with any matter which may be in the interests of the broader poultry industry, the Association and/or its Members.

1.3 The Broiler Organisation

The SAPA Broiler Organisation represents commercial broiler producers and associated breeder farmers and hatchery operations with the intention to serve the interests of the broiler industry on a national basis. The Broiler Organisation is funded by a voluntary levy.

Izaak Breitenbach took up the reins as general manager of the Broiler Organisation in January 2019.

1.4 The Egg Organisation

The Egg Organisation operates as an independent subsidiary of the South African Poultry Association. The purpose of the Egg Organisation (and its committee) is to improve the egg industry and promote it at a national level. This entails a critical evaluation of the methodology of control structures, achieving a higher level of operational input, liaising with government on crucial matters, liaising with consumer bodies, and striving to build a stronger image for the egg industry on an ongoing basis. Progress in the industry can be measured by an increase in egg consumption per capita in South Africa.

Membership of the Egg Organisation has declined over the past few years and it became clear that the only way to fund the organisation would be through a statutory levy. An application was made to the National Agricultural Marketing Council (NAMC) and supported by the producers of more than 66 % of the country's eggs. A budget drafted in October 2017, was used as the basis for a revised application to the NAMC requesting a levy of 1.5 cents per dozen eggs sold to trade.

The application was successful and a statutory levy on table eggs was gazetted in mid-2018, coming into force from 27 July 2018. All egg producers and packing stations contribute 1.5 c/dozen eggs traded.

The levy is collected by the Red Meat Levy Administrator. The administrator can be contacted on (012) 348 2160. The levy is spent on the administrative functions of the Egg Organisation, along with transformation initiatives, statistics, training, marketing and consumer education and awareness projects. Mogala Mamabolo was appointed as general manager of the Egg Organisation, with effect from December 2018.

1.5 Representation of the industry

The membership of SAPA's two organisations grew by 19 % in 2019:

Broilers	57
Eggs	128 (74 individual producers and 54 members of co-operatives)

Please note that these figures include the former members of the DPFO and CPO.

Broiler pricing reports, distributed by SAPA's statistics team every month, were generated from data submitted by 60.4 % of the broiler industry (on the basis of kilogrammes of edible broiler meat and products sold (1.12 million tonnes recorded from total annual commercial production of 1.85 million tonnes)).

SAPA communicates with its members via its website, bulk emails and the monthly *Poultry Bulletin*. During 2018, these tools of communication were reviewed and evaluated as to their effectiveness in reaching the target audience. This led to the *Poultry Bulletin* being incorporated into the *Poultry Focus Africa* magazine (edited by Gilla Brunt) from October. Information on SAPA's website is available to both members and non-members.

1.6 Developing poultry farmers

Small, medium and micro enterprises represent an important vehicle to address the challenges of job creation, economic growth and equity in our country. From 2003, the Developing Poultry Farmers Organisation (DPFO) catered for the needs of smallholder and emerging farmers by addressing issues affecting this growing sector of the poultry industry. The organisation also fulfilled a dynamic capacity building and advocacy role, empowering provincial structures and developing partnerships with the state over time. Unfortunately, funding of the organisation became problematic and, from 2015, the organisation was absorbed into the Broiler and Egg Organisations as part of SAPA's strategic restructuring. However, industry transformation remains a priority for SAPA (see Chapter 10.1).

1.7 Engagement with stakeholders

It is through partnerships with the Departments of Agriculture, Land Reform and Rural Development (DALRRD), Economic Development, and Health that the industry can solidify its position in the local marketplace, defend itself against imports, and expand export markets. SAPA hopes to continue working closely with these departments, the media and the provincial and local governments.

SAPA petitions the International Trade Administration Commission of South Africa (ITAC) to protect South African producers from unfair trade practices. In September 2018, the interim 13.9 % safeguard on EU bone-in portion imports was increased to 35.3 %. This measure was in place through 4Q 2018 and 1Q 2019; reducing to 30 % in March 2019, as gazetted. More recently, SAPA has again petitioned ITAC to raise the *ad valorem* tariff on bone-in and boneless chicken portions to 82 % (the maximum allowable under WTO rules). A decision is expected in early 2020. Attention has now shifted to Brazilian imports. SAPA has lobbied ITAC to impose anti-dumping duties on imports of broiler meat from Brazil and has sought to demonstrate the material damage to the local industry, resulting from these imports.

DALRRD began rolling out the Agricultural Policy Action Plan in 2016/2017 (APAP; Chapter 9). The poultry value chain, the feed industry, and the maize and soya industries were part of the plan and were therefore beneficiaries. The plan aligned DALRRD and other government funding with national strategic objectives. Transformation was one of the objectives. President Zuma's "Nine Point Plan" to revitalise the flagging economy included RAAVC - revitalisation of agriculture and the agro-processing value chain. Officially launched in February 2017, Operation Phakisa for Agriculture, Land Reform and Rural Development was yet another government initiative. Operation Phakisa was derived from the Malaysian Big Fast Results methodology that has been successfully used to achieve rapid economic transformation. SAPA participated in a 5-week Operation Phakisa laboratory in the planning stages and was involved in the development of five

initiatives under the livestock work-stream. Progress, or lack thereof, in these initiatives is discussed in Chapter 9.

In November 2019, the Minister of Agriculture, Land Reform and Rural Development, Thoko Didiza and Minister of Trade and Industry, Ebrahim Patel, witnessed the signing of the long-awaited Poultry Master Plan. The Master Plan is a joint initiative between poultry producers, meat importers (AMIE), organised labour, and government. This joint vision aims to support growth and transformation in the local industry (Chapters 6 and 9).

SAPA continues to engage with the South African Bureau of Standards (SABS) to develop local standards for the welfare of laying hens. Suggestions were submitted for the South African National Standard entitled 'Welfare of chicken (*Gallus Gallus domesticus*)' (SANS 1758:201X).

The Egg Organisation has been collaborating closely with the DALRRD in finalising amendments to regulation R725 ('Regulations regarding the grading, packing and marking of eggs destined for sale in the Republic of South Africa') relating to the Agricultural Product Standards Act, Act no. 119 of 1990. The regulations are to be gazetted for implementation during the first quarter of 2020.

SAPA is partnering with the Department of Trade, Industry and Competition (DTIC) in the development of a master plan for the egg sector value chain, which will provide strategic intervention areas for the egg industry.

SAPA continues to participate in global organisations such as the International Poultry Council, the International Egg Commission and the Animal Welfare Working Group of the World Organisation for Animal Health. SAPA also promoted collaboration with the National Agricultural Marketing Council (NAMC), Proudly South African, the NAHF and other agricultural commodity organisations.

1.8 Supply of information to the industry

As part of its service to the industry, the South African Poultry Association regularly distributes statistical information to its members and makes this information available to non-members through its website. Leading Edge Software have provided statistical services to SAPA since February 2015.

The reports circulated include the following:

Monthly

- Broiler pricing report
- Egg pricing report
- Broiler trade report (tariff lines and country)
- Broiler production report
- Egg production report
- Egg packaging report

Quarterly

- Subsistence and small-scale commercial farmers report
- Key market signals report for eggs and broilers (trade and pricing)
- Source data spreadsheets for eggs and broilers

In addition, the SAPA team produce bi-annual reports on the results of the Notifiable Avian Influenza Surveillance work conducted by the Department of Agriculture, Land Reform and Land Development, and an annual Industry Profile.

Members and non-members are encouraged to submit monthly production figures to SAPA. The data collected includes the total volume and value of fresh and frozen broiler products and of individual broiler "portions" sold, such as whole birds, bone-in portions, offal, etc. The number of day-old broiler parents placed and the number of broiler chicks hatched are also recorded. On the egg producers' side, information is collected on the number of day-old pullets placed, egg production volumes and average prices for eggs, feed and cull hens. The confidentiality of this process is ensured through the involvement of a team of auditors who deal with the raw data. Thus, any or all information, data, know-how, documentation, materials and other communications, written or oral, which are disclosed or provided to SAPA or its designees by a producer are regarded as confidential information belonging to that producer and cannot be disclosed to any other producer, individual or organisation.

Many local and international businesses and organisations, banks, researchers and government departments request the poultry statistics contained in this, and other, SAPA reports. The data are used in decision-making processes, in prioritising investments, in research projects, annual reports and trade applications, etc. Accurate statistical information is of benefit to all role players, so an appeal is made to producers (whether SAPA members or not) to help increase the sampling pool. Please email cynthia@silverpath.co.za to find out more.

2. THE POULTRY INDUSTRY IN SOUTH AFRICA

Approximately 75 % of the birds in the South African poultry industry are used for meat production, while the remaining 25 % are used in the egg industry. The South African broiler industry went through a period of substantial growth between 2004 and 2008, averaging over 7 % per annum. From 2009 to 2014, growth in the industry slowed down markedly to below 1 % per annum. In 2015, the industry grew by 4.7 % (based on tonnes of meat produced, including spent birds and non-commercial production). The industry then contracted by 3.0 % in 2016 and by a further 0.9 % in 2017. With maize prices dropping, broiler production increased by 5.5 % in 2018 and, in 2019, broiler production in South Africa increased by 3.5 %. In the 10 years from 2009 to 2019, growth has averaged around 1.7 % per annum. To put these numbers in perspective, annual population growth between 2004 and 2008 was 1.4 %; and between 2009 and 2019 was around 1.64 % per annum.

The growth period to 2008 was associated with increased demand for product and well-contained input costs. During the past ten years, production costs have increased, disposable income of consumers has declined and the importation of poultry meat products at low prices has eroded the demand for locally produced broiler products. Whilst importers point to the growth in 2018 and 2019 as evidence of a healthy domestic industry, they are not looking at the longer-term picture. Compared to production in 2015, as the drought started, broiler production has increased by only 5.4 % over a four-year period (average 1.36 % per annum). In the egg industry, growth (in terms of the number of layer replacement pullets housed per annum and egg production) has averaged approximately 1.3 % and plus 3.3 % per annum, respectively, since 2009.

2.1 Gross value

The gross value of primary agricultural production from poultry meat for 2019, as recorded by DALRRD, was 46.97 billion (- 1.3 % on 2018 levels). The gross value of egg production was recorded at R10.3 billion (- 9.9 %). Combined, the gross poultry farm income for 2019 was R57.27 billion, showing a yearly decrease of 3.0 %. According to DALRRD estimates for 2019, total production of poultry meat, including spent hens from the broiler and layer sectors, was 1.808 million tonnes. The total production of shell eggs and eggs products was 0.564 million tonnes (DALRRD).

Broiler and egg producers are, in rand value, the largest sector of South African agriculture at 20.0 % of all agricultural production (down from 20.5 % in 2018) and 41.3 % of all animal products (down from 42.2 %). The 20.0 % contribution from poultry products breaks down into 16.4 % from poultry meat and 3.6 % from eggs. Our nearest competitor, the beef industry, contributed 12.4 % to turnover of all agricultural production and 25.6 % of animal products.

The total gross value of animal products was R138.64 billion and the total gross value of agricultural products was R286.41 billion in 2019. Total animal products contributed 48.4 % to the gross value of total agricultural products. The gross value of ostrich feathers and products was R0.34 billion in 2019 (up from R0.27 billion in 2018); this is 0.2 % of agricultural production and 0.1 % of total animal products.

2.2 Feeding the nation

The poultry industry continues to pride itself on the fact that it feeds the nation, as more poultry products are consumed every year than all other animal protein sources combined. The South African poultry industry dominates the animal products sector, providing 65.6 % (up from 65.3 % in 2018) of locally produced animal protein consumed in the country (excluding milk; DALRRD).

The per capita consumption of poultry meat and eggs in 2019 was 39.3 kg and 8.90 kg, respectively, with a combined per capita consumption of 48.2 kg (including backyard consumption).

Per capita consumption of beef, pork, and mutton and goat were 17.2 kg, 5.1 kg, and 3.14 kg respectively (source: DALRRD). Per capita milk consumption was 39.5 kg per person.

The gap between the total consumption of poultry meat and eggs and the total consumption of other types of meat (Figure 1) has widened over the past ten years.

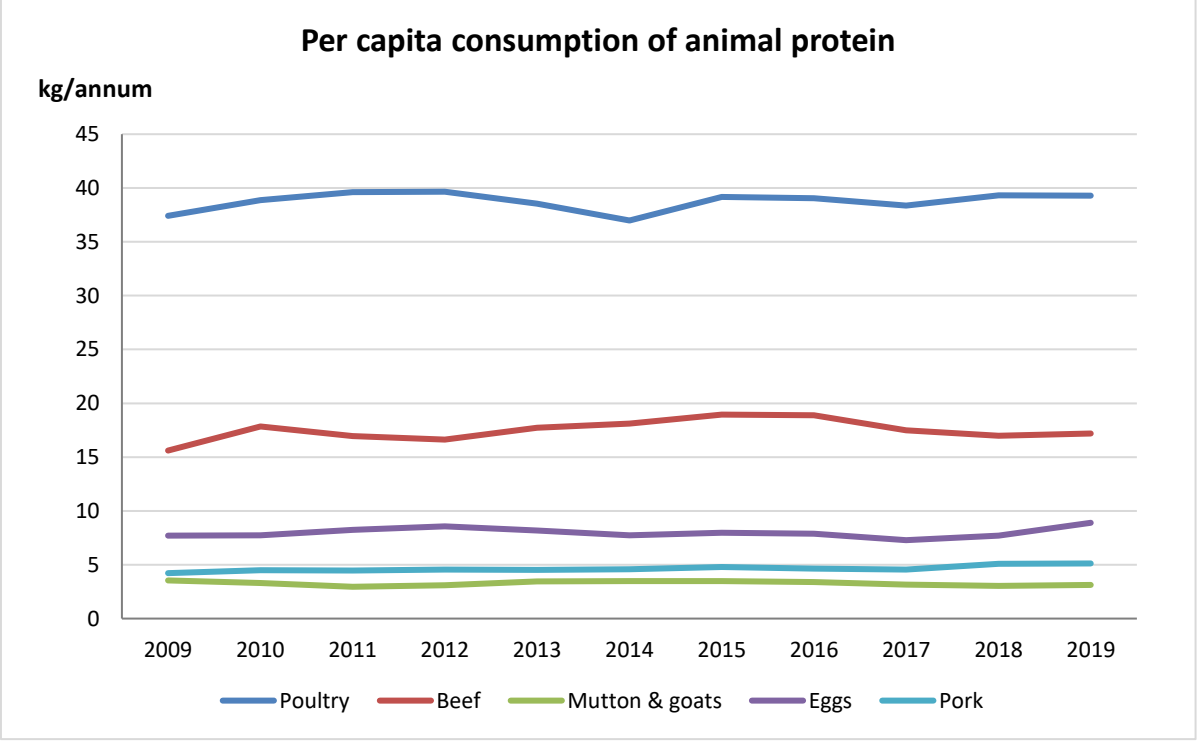


Figure 1. *Per capita consumption of protein sources from 2009 to 2019 (DALRRD)*

During 2019, the total consumption of poultry meat and eggs (according to DALRRD) was 2.879 million tonnes; 90.5 % more than the combined 1.511 million tonnes of beef, pork, mutton and goat consumed over the same period. Of this, 2.328 million tonnes were poultry meat products (including imports) and 0.551 million tonnes were eggs and egg product.

2.3 Price comparison of protein sources

On a rand per kilogramme basis, broiler meat and eggs remain the most affordable of animal protein sources, with the exception of milk.

The average beef producer price at the abattoir (carcass price, excluding the fifth quarter) for class A2 / A3 was R44.98 per kg in 2019 (- 3.9 %), while the abattoir selling price for Class C2 / C3 beef was R39.78 per kg (- 4.5 %) (Stats SA). The average price for pork (all classes) was R25.13 per kg (+ 2.7 %).

The total realisation producer price for broilers (less all discounts, rebates and secondary distribution) was R22.89 per kg in 2019 (+ 2.0 %; SAPA). It should be noted that the broiler price is for finished product, whilst the other meat prices are ex-abattoir.

Eggs realised higher prices in 2017 and 2018 because of avian influenza related shortages and subsequent rebuilding of flocks and production. Prices began to ease in 2H 2018. The average producer price of eggs in 2019 was R19.20 per kg (R14.10 per dozen; - 15.5 % (SAPA; all sizes)).

The average 2017 to 2019 prices of animal proteins are given in Figure 2 and monthly prices since 2015 are shown in Figure 3.

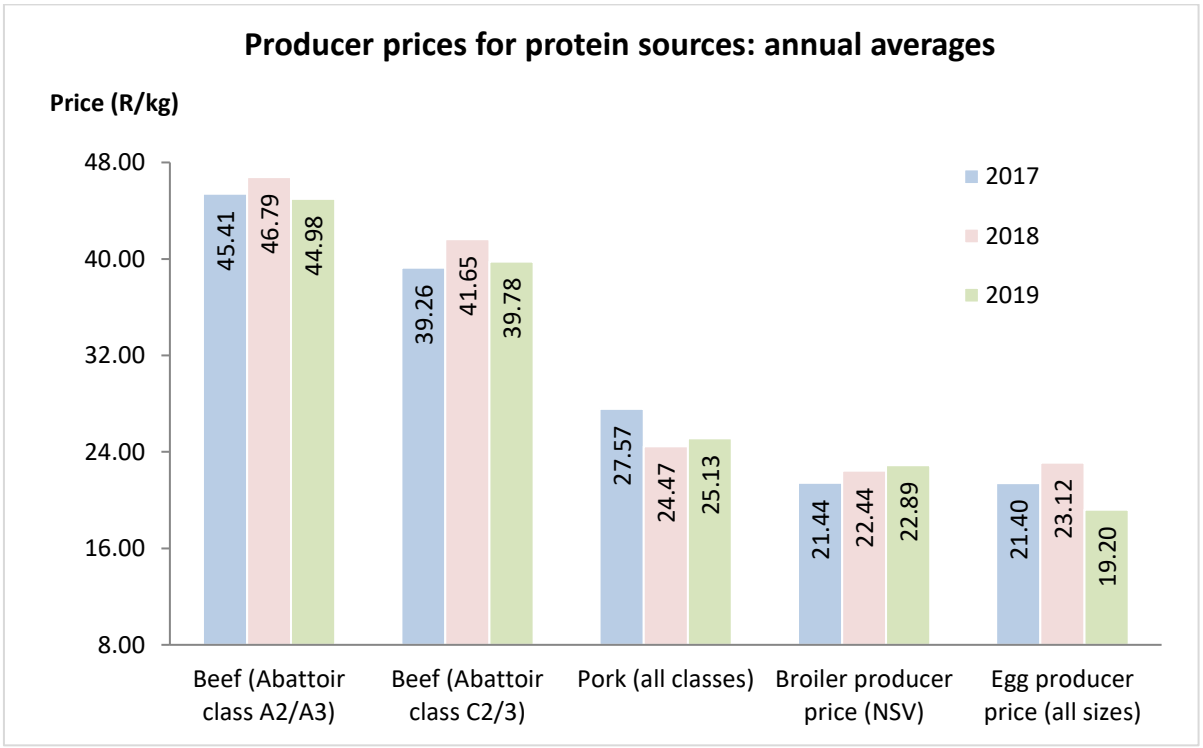


Figure 2. *Average annual producer prices for different protein sources between 2017 and 2019 (Stats SA; SAPA)*

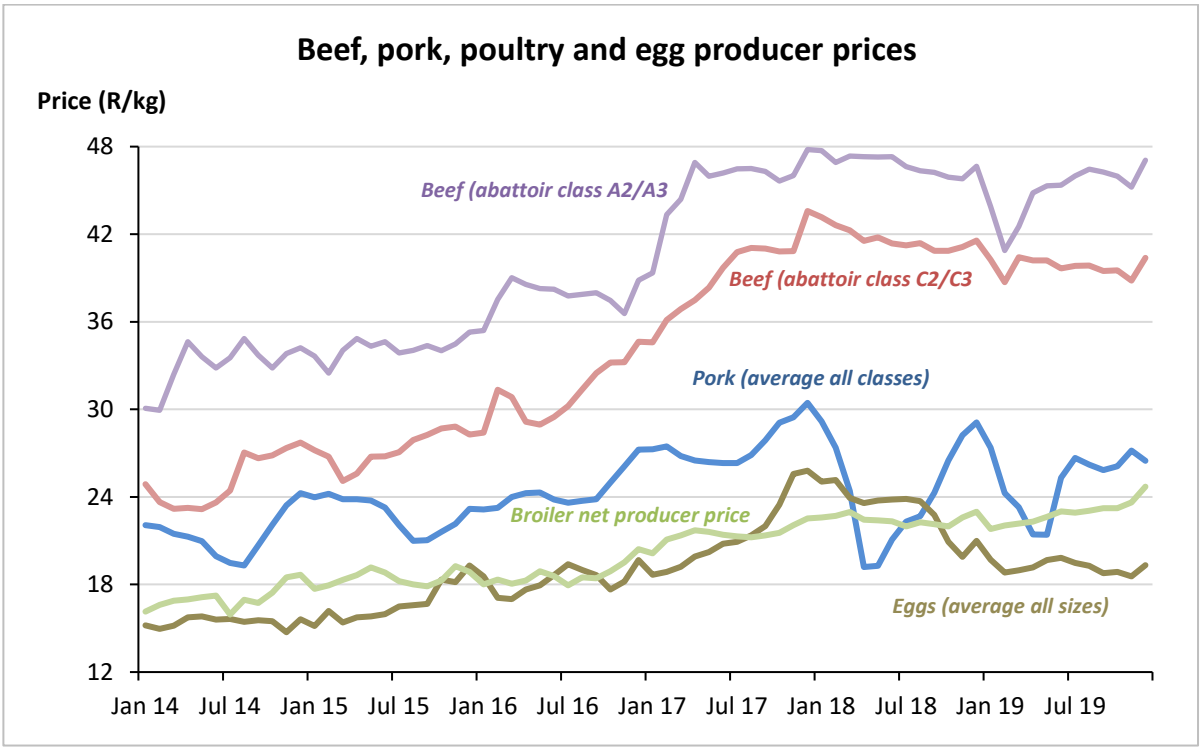


Figure 3. *Monthly beef, pork, broiler and egg producer prices (source: AMT, SAPA)*

Changing views on cholesterol and the increasing popularity of high protein/high fat diets have fuelled a resurgence in the consumption of eggs in the developed world. South African consumers lag behind in recognising the cost-effectiveness of eggs as a high-quality protein source.

For decades, doctors, scientists and government agencies warned against diets high in cholesterol. However, since a 2015 revision of the recommendations of the US Dietary Guidelines Advisory Committee (DGAC), cholesterol is no longer considered "a nutrient of concern for over-consumption". For most people, dietary cholesterol has a much smaller effect on blood levels of total cholesterol and harmful LDL cholesterol, than does the 'mix of fats' in the food eaten. Research shows that an egg a day does not increase heart disease in healthy individuals. In fact, the anti-oxidant selenium found in eggs, along with the easily digestible, high-quality protein and vitamins (A, B_{12}, D, riboflavin and folate), may lower the risk of heart problems.

In 2018, eggs found themselves in the medical news again when a study by Northwestern University in the US seemed to suggest that the intake of eggs was associated with an increased risk of heart disease and stroke. The study, published in the Journal of the American Medical Association, looked at the diet and medical history of almost 30 000 people and concluded that eating a single egg a day would increase cholesterol levels and the risk of stroke death by 17 %. However, critics dismantled the paper, citing problems with the methodology and the conclusions drawn. In particular, if the overall cholesterol intake was taken into account, the significance of eggs as a contributor to death dropped out of the analysis. The author has conceded that total cholesterol intake is what people should really focus on, along with healthy lifestyle choices and cutting out cigarettes.

Nutritional studies are notoriously difficult to conduct because of differences in diet, patient behaviour, compliance, etc., so the jury is still out on whether cholesterol is actually bad for us. The acceptability of eggs in a healthy diet is just as contested. In 2018, a trial published by Oxford University (in the British Medical Journal) suggested the complete opposite of the Northwestern study: that eating an egg a day could reduce cardiovascular death by 18 % and haemorrhagic stroke death by 28 %. This study looked at the dietary habits of over half a million Chinese adults over a four-year period. Although the Chinese diet is very different from Western diets (blurring interpretation), this study suggests a protectionary role of eggs in the Chinese adults surveyed. Certainly, the American Heart Association believes that eating an egg a day (providing you exercise, follow a healthy lifestyle and cut out cigarettes) is a perfectly reasonable thing to do.

2.4 Employment

The estimated direct employment in the broiler industry in 2019 is 51 612 (Table 1). This number includes hatcheries, rearing, processing and distribution. If related industries are taken into account, another 61 935 employees can be added; totalling 113 547 employees. The poultry share of employees in the related field crops is estimated at 18 817. SAPA suggests that for every 10 000 tonnes of chicken meat imported, 1 000 direct and indirect jobs are lost in South Africa. The members listed in SAPA's database have 34 029 direct employees.

Table 1: *Employment in the broiler industry (2019; estimated)*

Number of employees (including contract workers)	Junior staff (Paterson A and B grades)	Supervisory and senior staff (Paterson C grades and above)	Total
Broiler breeder, hatchery and rearing industries (including GPs)	13 825	1 708	15 533
Broiler processing industries	27 388	2 177	29 565
Broiler distribution industries	4 792	1 722	6 514
Grand total for direct employees	46 005	5 607	51 612
Total employees in support industries – indirect employees			61 935
Total direct and indirect employees			113 547
Total of related field crops i.e. white and yellow maize and soya			50 292
Poultry share of related field crops			18 817

With approximately 8 527 workers nationwide in 2019, the egg industry is an important player in rural employment (Table 2).

Table 2: *Estimated direct employment in the egg industry (2019)*

Number of employees	Workers	Supervisors	Managers	Total
Grandparent rearing	14	4	2	20
Grandparent laying	6	6	3	15
Parent hatching	33	6	3	42
Parent rearing	105	20	5	130
Parents	57	16	5	78
Pullet hatching	192	24	6	222
Rearing	1 553	148	37	1 738
Laying	1 565	184	92	1 841
Packing	2 546	372	124	3 042
Processing	98	22	11	131
Support staff	1 087	0	181	1 268
Total	7 256	802	469	8 527

The estimated employment figures for 2019 are based on the average number of laying hens in South Africa, and a calculation of the number of layer breeders required to produce the commercial layer flocks. Assumptions have been made on the staffing requirements per unit in the vertically integrated industry (covering support staff, processing, packing, laying, rearing-pullet hatching, parents, parent-rearing and hatching, grandparent laying and rearing). Total employees increased by approximately 11.6 % compared to 2018. The members listed in SAPA's database have 6 704 direct employees.

SAPA'S producer database contains records of 953 small-scale broiler farmers who are currently not members. In addition, there are 148 commercial egg producers and 80 commercial broiler producers, of varying sizes, who are not members. A small commercial egg farmer is defined as having between 500 and 50 000 hens. A small commercial broiler farmer is one who produces between 1 500 and 40 000 birds per cycle.

2.5 Poultry feed: maize consumption

The total maize crops for the 2014/15 and 2015/16 seasons were only 9.95 and 7.78 million tonnes, respectively. More than 2 million tonnes of maize were imported in the 2015/2016 season; the first time that imports had been necessary in seven years. As the drought broke in the maize-growing regions, the total maize crop for 2016/17 reached a record 16.74 million tonnes – and South Africa regained its status as a net exporter of maize. In the 2017/18 season, the maize crop dropped 25.3 % to 12.51 million tonnes and there was a further 9.9 % reduction in output in the 2018/2019 season (11.275 million tonnes). The drop in production in the past two seasons is largely a reflection of reduced plantings in 2017/18 and late rains which delayed planting in 2018/19. White maize was recorded at 5.55 million tonnes (49.2 %) and yellow maize at 5.73 million tonnes (50.8 %; Crops Estimate Committee).

The 2019/20 harvest is currently expected to be about 29 % above last year's crop (Crops Estimate Committee).

The total South African consumption of maize for 2018/19 was 10.69 million tonnes, of which 6.28 million tonnes was white maize and 4.41 million tonnes was yellow maize. The South African poultry industry remains the biggest non-human consumer of locally produced maize (AFMA) and, in 2019, maize contributed R28.12 billion to the gross value of agricultural products, compared to R24.45 billion in the previous year (source: DALRRD).

2.6 Poultry feed: sales of complete feed

According to AFMA estimates, a total of 6.72 million tonnes of animal feed was manufactured by its members in 2019. The poultry industry consumed 4.25 million tonnes, of which 2.676 million tonnes were broiler feed, 1.013 million t layer feed, 0.537 million t breeder feed and 0.013 million t ostrich feed. In total, a massive 63 % of AFMA's animal feed sales went to the poultry industry (Figure 4).

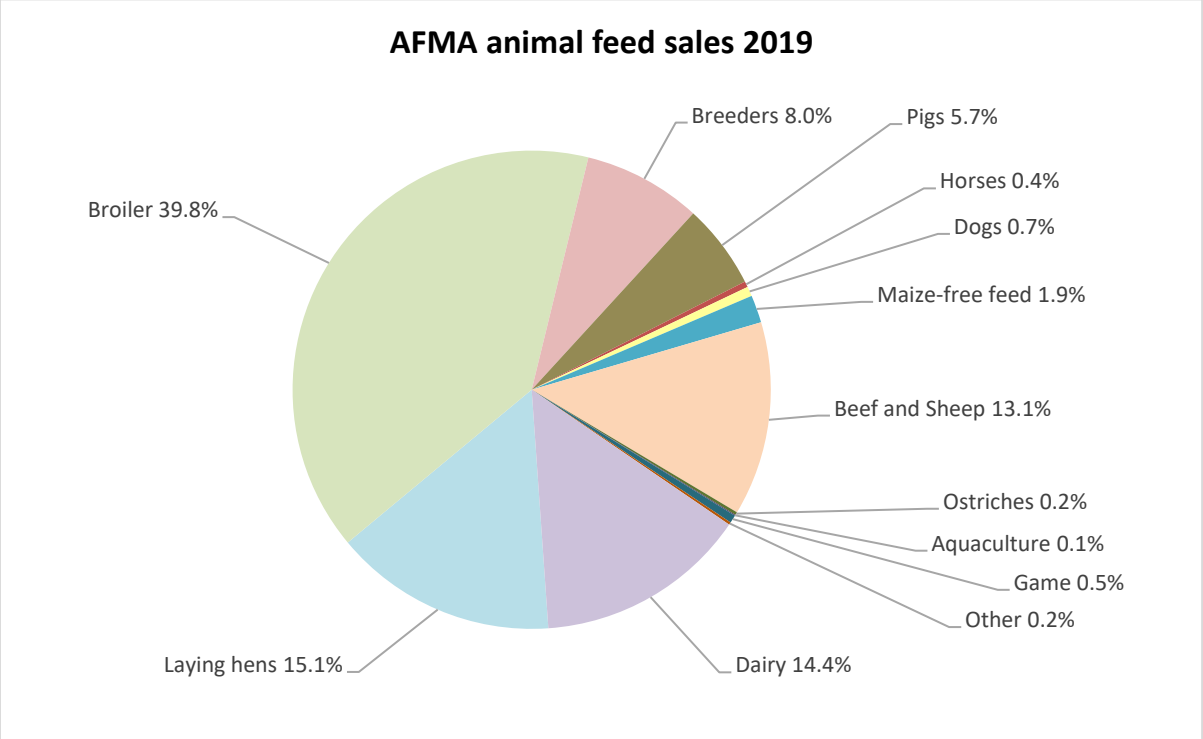


Figure 4. *Animal feed sales by AFMA members in 2019*

National feed production during 2018/19 (April to March) was 11.509 million tonnes, a 4.4 % year-on-year increase in feed sales. AFMA sales represent 60.8 % of the national feed produced (AFMA).

A total of 5.51 million tonnes of maize was used for animal feed (South African Grain Information Service) in the 2018/19 season. This comprised 1.68 million tonnes of white maize (30.5 %) and 3.83 million tonnes of yellow maize (69.5 %).

2.7 International price competitiveness

Although chicken consumption (tonnes) has increased by around 25 % in the period 2009 to 2019 (SAPA), local production has only increased by 16.6 % in the same period. Broiler imports, mostly from the Americas and the EU, increased by 150 % between 2009 and 2019. Importers argue that imports are meeting a demand which local producers simply cannot meet; while local producers claim that imports are driving small producers out of business, killing investment and preventing bigger businesses from making full use of their production capacity. The EU repeatedly attacks the South African industry as inefficient and uncompetitive. So, how competitive *is* the South African broiler industry internationally?

There is little doubt that South African producers compare favourably with global competitors in terms of production efficiencies. The University of Wageningen has demonstrated this over a number of years. It is production *costs*, particularly feed costs, which reduce our competitiveness. Feed costs account for between 65 and 73 % of total live broiler production costs in most countries. Because of the country's relatively high levels of protein imports and a free market for maize exports, any increases in global maize and soya prices impact South African feed costs. Increases in feed prices are often not matched with increased prices for local broiler products. High feed costs keep the domestic broiler price above import parity price even for non-dumped tariff lines and render South African producers vulnerable to imports. When global feed prices are high, or the local maize crop fails, even a depreciating rand cannot protect the local market from cheap poultry imports.

Whilst, in a year of good harvests, South African poultry producers may also enjoy export parity prices for maize, soya prices have tended towards import parity. This situation will change as South Africa's domestic soybean production increases.

As is the case with the EU, transport, storage and other costs push up the price of protein-rich raw materials in South Africa. In addition, higher feed costs result in higher day-old chick prices. Therefore, South African poultry farmers have not been technically inefficient producers; there has simply been an insufficient supply of locally grown, affordable feed inputs. Amongst our competitors, Brazil, Argentina and the US are net exporters of both maize and soybeans. Figures from the Bureau for Food and Agricultural Policy's "Competitiveness of the South African Poultry Industry" report (2019) suggest that, in 2017, the € cost per kilogramme live weight was approximately 18 % higher in South Africa than Brazil (increased from 13 % in 2015). It is safe to label differences in feed costs as the major contributor to higher broiler production costs in this country. However, feed costs in South Africa, when the maize harvest is good, *are* lower than in Europe (BFAP). Here, structural differences in the market for broiler meat also come into play (see below).

In a study on the competitiveness of the EU poultry sector (LEI Wageningen UR, 2019), EU *feed-related* production costs in 2017 were 15, 16 and 3.5 % higher than feed-related production costs in the US, Brazil and Argentina, respectively. Total production costs in the EU were higher than those in the US, Brazil and Argentina by 28, 31 and 13 %, respectively (2017). Compared to South Africa, the US and Argentina enjoyed production costs around 7 % and 2 % (respectively) below those incurred by South African producers in 2017. Brazilian and Ukranian producers

were able to produce chicken for 15 % and 10 % less than their South African counterparts, respectively.

Compounding the effect of feed price on the local cost of broiler production and our vulnerability to imports are the global differences in consumer preferences for chicken meat. Production costs in the EU ranged from 6 % above South African levels (Poland) to 23 % in Denmark. The Netherlands, France, Germany and the UK produce chicken at 17 %, 22 %, 15 % and 19 % above South African production costs, respectively (2017 data; BFAP/Wageningen). Despite this, the EU nations are able to export hundreds of thousands of tonnes of broiler meat to South Africa every year. Whilst the local market prefers "brown meat" (bone-in portions, such as leg quarters, drumsticks, wings, thighs, etc.), the EU and US consumer has a strong preference for "white meat" (largely breast meat) and boneless portions. Chickens, of course, grow as a single bird, with a leg and a wing to match each portion of breast meat. This means that, if the premium earned for white meat is sufficiently high in an exporting nation, the remainder of the carcass can be disposed of into receptive export markets, at reduced prices. The premium earned on the breast meat helps to cover the costs of production so that the "waste" cuts can be sold below the production cost per kilogramme of a whole bird. Imports of "below cost" or "at cost" portions in to a country put downward pressure on local prices, effectively removing any premiums which might be available for preferred cuts in that country. South African producers should be able to realise higher prices for dark meat cuts but are unable to do so in the face of large volumes of imported cuts from the EU and, more recently, from the US and Brazil.

Figure 5 below illustrates how the amount of bone-in chicken imports, as a proportion of total poultry imports, has increased over the past 9 years.

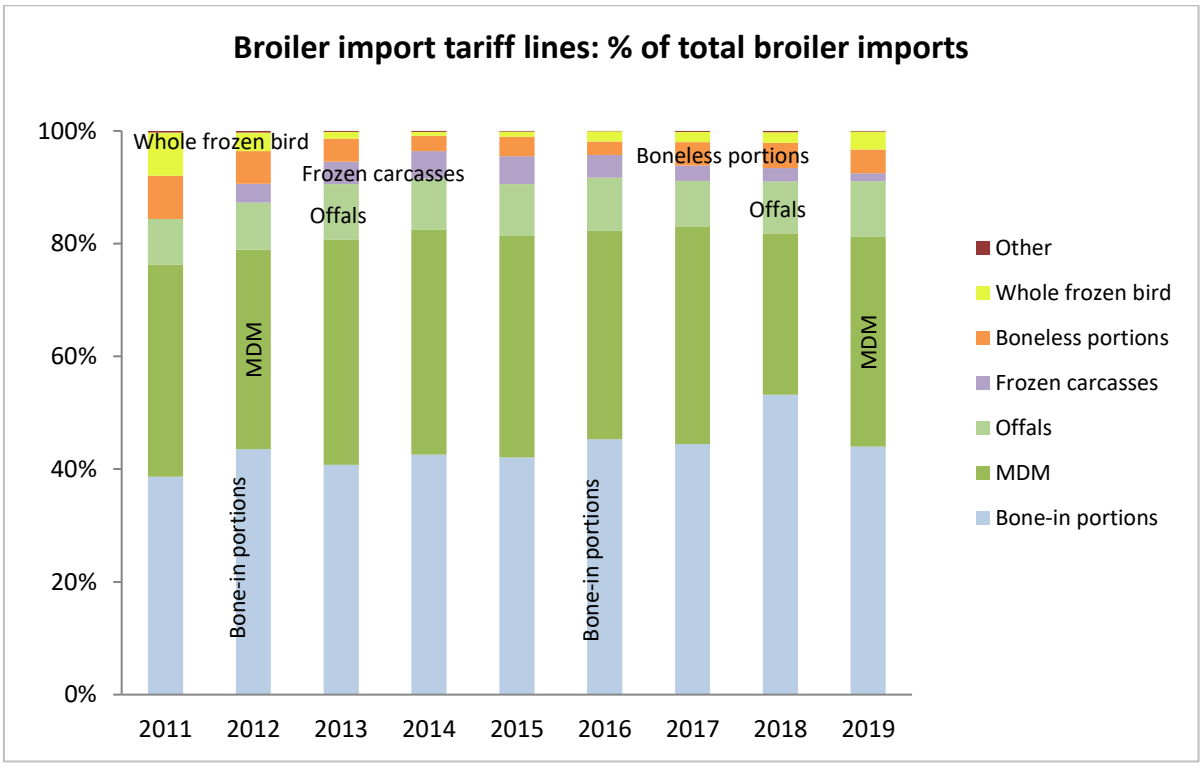


Figure 5. *Annual broiler imports according to tariff line, expressed as a percentage of total broiler imports*

It can be seen that broiler imports into South Africa comprise mostly bone-in portions and mechanically deboned meat (MDM). The proportion of whole frozen birds (82 % tariff) in the imports decreased in recent years to 2015 and then increased slightly between 2016 and 2019. The proportion of boneless chicken portions (12 % tariff) decreased to 2016 but has increased between 2017 and 2019. However, the proportion of bone-in portions (37 % tariff; except for EU) is steadily increasing and exceeded 40 % of total imports from 2012 to 2019. Even with outbreaks of avian influenza disrupting trade in European poultry products, bone-in portions still accounted for over 44 % of total imports in both 2016 and 2017, and 53 % in 2018. In 2019, 44.0 % of broiler imports were frozen bone-in portions.

With anti-dumping legislation in place against the US on tariff lines 0207.1491 to 1499 (frozen bone-in chicken imports), almost all of these bone-in imports originated from the EU until 2016. However, under the terms of the African Growth and Opportunities Act (AGOA), a unilateral trade concession between the US and Africa which was renewed in 2015, South Africa was forced to allow 65 000 tonnes/annum of US frozen bone-in chicken portions in to the country from January 2016. This quota is free from the R9.40/kg anti-dumping duty payable on US bone-in imports and has increased to 68 590 tonnes from April 2019. South Africa applies a tariff of 37 % to imports of frozen bone-in portion to all exporters except the EU, EFTA and SADC nations (so the US continues to pay this, even on the AGOA quota tonnes).

The EU enjoyed duty-free access to the South African poultry market under the Trade, Development and Co-operation Agreement (TDCA), until February 2015 when anti-dumping duties (on bone-in portions) were imposed on several companies based in the UK, the Netherlands and Germany. The International Trade Administration Commission (ITAC) accepted that imports of frozen bone-in portions from these three countries were causing downward pressure on domestic prices and that these imports were essentially being dumped. The Commission determined that the local industry has been unable to pass-on increases in input costs (feed and electricity) to consumers because of competition from dumped imports.

When these measures did nothing to stem the flow of bone-in imports, SAPA applied to ITAC again and, in December 2016, an interim anti-dumping tariff of 13.9 % was introduced on bone-in portions from all EU exporters. This was increased to 35.3 % in September 2018 for 4Q 2018 and 1Q 2019. With Poland, Spain and Ireland currently exporting increasingly high levels of bone-in portions to South Africa, it seems likely that even an anti-dumping duty of 35.3 % would be too low to prevent flooding of the local market with European waste products – and this duty has already been reduced to 30 % from March 2019.

Given that the South African industry struggles to remain globally competitive at the whole bird level because of feed ingredient imports, it is clear that it is not possible to compete against imports of what are, in fact, by-products from the US and EU.

The chicken to maize price ratio is an important indicator of profitability in the poultry industry. A favourable chicken to maize price ratio and more effective measures to counter dumping would support expansion in the local industry. This ratio reached record lows in South Africa in 2012 (when the US drought pushed feed prices up) but stabilised through 2013 and became favourable through much of 2014. In 2015, the chicken:maize price ratio declined steadily

through the year because of drought conditions and a weakening rand; dropping below 2012 lows as the drought continued into 2016. The record-breaking maize harvest in 2017 improved the chicken to maize price ratio (although still 40 % below the level seen in 2004/5), which spurred expansion in the industry (BFAP). The chicken to maize price ratio decreased off these 2017 - 2018 levels by almost 15 % in 2019, as maize prices continued to firm. Although the chicken:maize price is becoming less favourable, the weak rand and additional measures in place against US, EU and Brazilian exports, may still support growth in the local poultry industry, at least in the short term. BFAP forecast that the chicken:maize price ratio will reach an equilibrium over the period 2023 – 2028, somewhere between the unfavourable levels of 2012 – 2016 and the favourable ratio experienced in 2017. Further, BFAP suggest production growth will become constrained to around 1.1 % per annum as the EU safeguard is phased out, and if highly pathogenic avian influenza levels remain under control in the EU.

The updated University of Wageningen and BFAP reports on the competitiveness of the EU and South African poultry industries can be found at:

https://www.avec-poultry.eu/wp-content/uploads/2018/12/WUR-report-2018-116-Competitiveness-EU-poultry-meat-PvanHorne_def.pdf

http://www.bfap.co.za/wp-content/uploads/2018/08/BFAPBaseline-2018.pdf

https://www.bfap.co.za/wp-content/uploads/2020/04/Final-Baseline-2019.pdf

While cheap imports may benefit consumers if the cheap import prices are passed onto consumers, (which does not always seem to be the case), they also adversely affect the ability of domestic producers to earn profits commensurate with acceptable rates of return. Thus, these producers cannot sustain the investment required to grow their operations.

Lack of growth in a sector which is a large employer in the country contributes to high unemployment levels. If returns on investment are inadequate over a number of years, this will result in either the closure of the business or an under-usage of existing capacity. While the poultry industry has the capacity to significantly increase employment opportunities in South Africa, import companies do not employ many staff. The Bureau for Food and Agricultural Policy's 2019 Baseline report estimates that bone-in imports will increase again in the coming years to reach 33 % of domestic chicken consumption by 2028.

For a compelling read on the effect of predatory imports on a country's industry, read www.biznews.com/sponsored/2017/02/14/eu-dumping-sa-chicken-industry/. Paul Dillon, of the Fair Play Movement, explains how dumpers price their products just below those of local producers but considerably above the imported price. This effectively prevents local producers from reacting (by raising prices) to input cost drivers such as escalating feed costs during drought years.

The role of the retailer in allowing this predatory behaviour is also outlined and emphasised. Unlike predatory pricing campaigns between brands, this undercutting can go on indefinitely because the cost of the imports is so low that the profits made by the retailers and dumpers will always be high and sustainable. Inevitably, smaller local operations will cease trading and

employing; consolidation will occur; and, eventually, even highly efficient, large-scale operations will begin cutting production and retrenching labour.

Import protection aside, the obvious approach to improving the price competitiveness of the South African broiler industry is to develop the country's capacity for growing and processing soybeans and maintaining a strategic stock of maize to limit price progression towards import parity levels. Both the Bureau for Food and Agricultural Policy and the Department of Agriculture, Land Reform and Rural Development have alluded to the soybean development strategy in their Baseline reports and Agricultural Policy Action Plan (Chapter 9), respectively, and this capacity is steadily being increased. In the 2019 season, South African soybean farmers continued to make big strides towards national self-sufficiency in soybean production, with the crop estimated at 1.17 million tonnes (down from the 2018 record crop of 1.55 m tonnes; Crops Estimate Committee). Oilseed meal imports are expected to drop from contributing 70 percent to local consumption ten years ago, to contributing less than 20 percent to local consumption in the 2018/19 season (FAS USDA).

3. SOUTHERN AFRICAN DEVELOPMENT COMMUNITY (SADC) OVERVIEW

SOUTHERN AFRICAN DEVELOPMENT COMMUNITY
TOWARDS A COMMON FUTURE

The SADC member states are Angola, Botswana, Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, eSwatini (Swaziland), Tanzania, Zambia and Zimbabwe (Figure 6). The SADC Secretariat has its headquarters in Gaborone, Botswana.

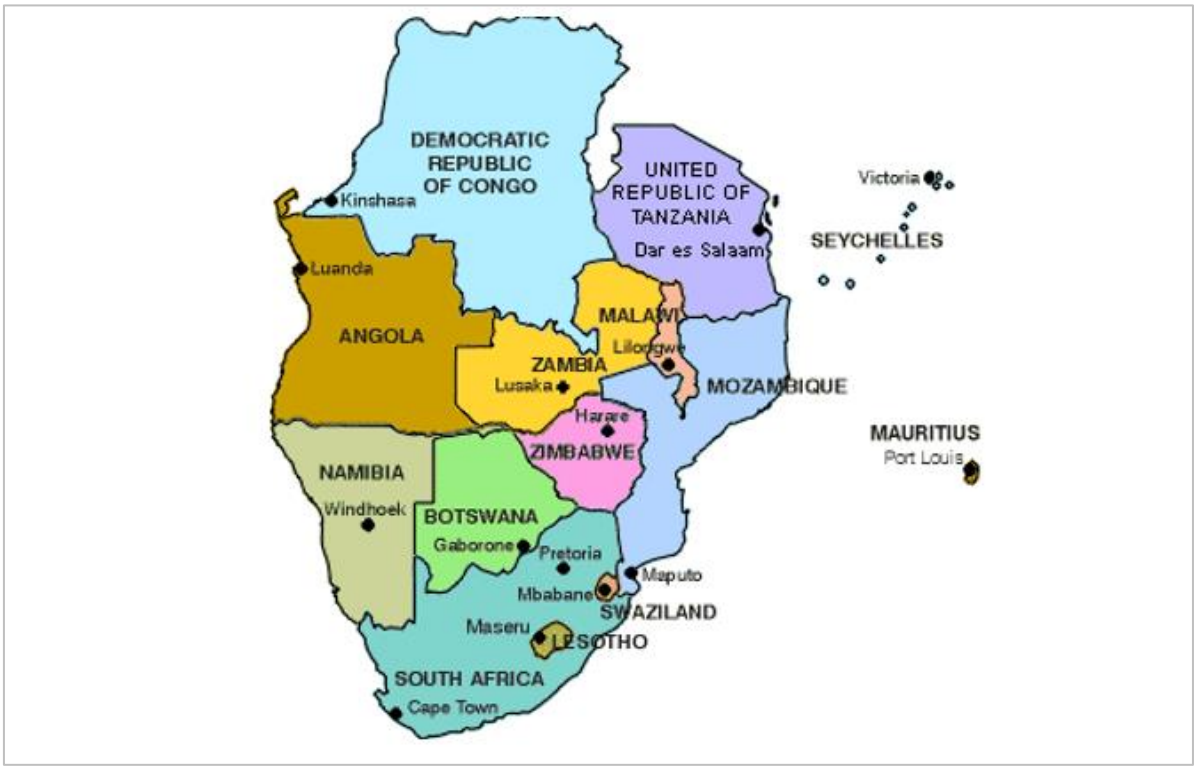


Figure 6. *The Southern African Development Community countries*

The **SADC Vision** charts the direction for the development of the region. A declaration, "Towards the Southern African Development Community", adopted in Windhoek, Namibia on 17 August 1992 by Heads of State or Government, calls upon all countries and people of Southern Africa to develop a vision of a shared future, a future within a regional community.

The SADC Vision is to build a region in which there will be a high degree of harmony and rationalisation, to enable the pooling of resources to achieve collective self-reliance and improve the living standards of the people of the region. The main objectives of the Southern African Development Community (SADC) are to achieve economic development, growth, peace and

security; to alleviate poverty; enhance the standard and quality of life of the peoples of Southern Africa, and to support the socially disadvantaged.

These objectives are to be achieved through increased regional integration, built on democratic principles, and equitable and sustainable development.

3.1 SADC and poultry production

Reliable access to adequate food is a fundamental human right and essential for well-being. SADC member states face challenges ranging from scarce or unpredictable food supply to situations of over-supply. Factors such as weather and climate, labour intensive or dated agricultural methods, and health issues which affect agricultural productivity all impact on the region's ability to be self-sustaining in terms of food production. SADC member states address these serious obstacles to food security through the Livestock Unit of the Food, Agriculture and Natural Resources Directorate (FANRD). The FANRD is one of five directorates grouped together under Regional Integration, along with Trade, Industry and Finance; Infrastructure and Services; Social and Human Development and Policy Planning and Resource Mobilisation.

The Food, Agriculture and Natural Resources *Priority Areas* include food availability, access to food, promotion of improved safety and nutritional value of food, and institutional framework strengthening and capacity building.

The Food, Agriculture and Natural Resources Directorate's key functions include:

- Development, promotion and facilitation of agricultural policy harmonisation, including collection of data to monitor progress;
- Ensuring sustainable food security policies and programmes;
- Development, promotion and harmonisation of phytosanitary, sanitary, and animal husbandry methods and policies;
- Promotion of trade in agricultural products.

The Livestock Technical Committee, made up of the Directors of National Livestock and Veterinary Services, meets annually to discuss issues of regional co-operation and integration. Its policies and directives are co-ordinated by the Livestock Unit, which also works on addressing sanitary and phytosanitary (SPS) issues in relation to trade.

One of the most important SADC projects from a poultry production perspective is the Trans-boundary Animal Diseases (TADs) project. This project, which was implemented in five SADC Member States (Angola, Malawi, Mozambique, Tanzania and Zambia), is designed to strengthen regional institutions in order to identify, diagnose and control the serious socio-economic impacts of trans-boundary animal diseases and to make livestock a tradable commodity. The project is also addressing management of trans-boundary animal diseases, including Newcastle Disease and Avian Influenza.

Concerted regional efforts are required to control and manage animal diseases in the SADC region as SADC subscribes to the OIE principles of zoning and compartmentalisation, in order to enhance regional and international trade in livestock and livestock products. SADC aims to

make significant progress towards the goal of managing, controlling and (where possible) of eradicating trans-boundary animal diseases, through improved capacity for detection, identification, monitoring and surveillance of the diseases.

SAPA is the secretariat for the SADC Poultry Liaison Forum which meets at least twice per annum in a member country to share issues relevant to the region. The purposes of the Liaison Forum are:

- to allow SADC countries to get to know each other so that difficult issues can be discussed, and a middle ground found on technical and trade-related matters;
- to share common issues relating to the poultry industry, so that members may benefit from information shared;
- to develop a combined view that will allow all members, via the Forum, to work with the SADC Secretariat in Botswana when necessary - and especially the Joint Technical Committee.

Issues regularly discussed at these Forums include the effect of imports on local industries; illegal movement of poultry products across SADC borders; raw material prices and infrastructure issues (e.g. erratic electricity supplies); government regulation of poultry and subsidiary industries; and disease control.

3.2 The SA poultry industry's contribution to regional poultry production

Commodity: chicken meat (FAO)

Production figures for the SADC region have not been updated for 2019 on the Food and Agriculture Organisation (FAO) website. The total production of chicken meat in the SADC countries during 2018 was 2.41 million tonnes (Table 3; FAOstats). While the accuracy of these figures may be questionable, they do offer an insight into regional production trends over the last decade.

There was substantial growth in broiler production levels in Angola, Malawi and Mozambique in the 10 years to 2018, and good growth in Lesotho, Madagascar, Mauritius, South Africa, eSwatini (Swaziland), Tanzania and Zambia. However, with the exception of South Africa, this growth stemmed from a very low base, coupled with low per capita consumption. There thus remains huge scope for increasing both regional production of broiler meat and per capita consumption of the product.

The 2018 table illustrates that South Africa has been losing market share in the region, as neighbouring countries develop their industries. However, South Africa still dominated regional production of chicken meat in 2018, accounting for 72.9 % of total production in the SADC bloc (FAOstats). Malawi and Tanzania were the next biggest producers, but each accounted for less than 8 % of the total regional production of broiler meat.

Contraction of the industry occurred in Botswana, the Democratic Republic of Congo, Namibia and the Seychelles over the decade 2008 to 2018.

Table 3: *The production of chicken meat in the SADC member countries in 2018* (FAOstats).

	Production		% Growth	% Total production		Population
SADC Country	**2008**	**2018**	**(10 yr)**	**2008**	**2018**	**2018**
Unit	Tonnes	Tonnes	%			M
Angola	13 140	27 208	+ 107	0.8	1.1	30.81
Botswana	6 609	4 247	- 35.7	0.4	0.2	2.25
Dem. Republic Congo	10 737	10 355	- 3.6	0.6	0.4	84.07
Lesotho	1 520	1 840	+ 21.1	0.1	<0.1	2.11
Madagascar	36 800	48 698	+ 32.3	2.2	2.0	26.26
Malawi	19 060	190 617	+ 900	1.1	7.9	18.14
Mauritius	42 200	49 000	+ 16.1	2.5	2.0	1.27
Mozambique	18 823	86 363	+ 359	1.1	3.6	29.50
Namibia	11 040	10 228	- 7.4	0.7	0.4	2.45
Seychelles	768	559	- 27.2	0.1	<0.1	<0.10
South Africa	1 327 564	1 754 562	+ 32.2	79.5	72.9	57.79
eSwatini (Swaziland)	5 200	6 048	+ 16.3	0.3	0.3	1.14
United Rep. of Tanzania	77250	100 991	+ 30.7	4.6	4.2	56.31
Zambia	38 500	49 487	+ 28.5	2.3	2.1	17.35
Zimbabwe	60 950	65 837	+ 8.0	3.6	2.7	14.44
Total for SADC	**1 670 161**	**2 406 040**				**343.99**

It is not easy to calculate per capita chicken meat consumption in the SADC region because of limited statistics on production and trade. However, based on FAO trade and production statistics for 2017 (the most recent trade estimates), total production of "chicken meat" in the region at that time was 2 249 572 tonnes, total imports amounted to 932 113 t, and exports to 71 080 t. Using a 2017 population estimate of 335.05 million people, per capita consumption of chicken meat is approximately 9.28 kg (2017). However, it is likely that some of the imports moved internally within the region, for example ex-South Africa. Based on local production figures alone (ignoring trade), as collated by the FAO, per capita consumption would be approximately 6.7 kg (2017) and 7.0 kg (2018).

Commodity: hen eggs (FAO)

The total production of hen eggs in the SADC region was 765 361 tonnes during 2018 (the latest year available from FAOstats; Table 4). Based on these figures, ignoring any imports/exports and given an average egg size of 58 g, the average per capita consumption of hen eggs in shell was 39.4 eggs per annum in 2018. This was down from 41.0 eggs per capita in 2014.

Per capita consumption ranged from approximately 2 eggs per person per annum in the Democratic Republic of the Congo to approximately 173 eggs per year in Mauritius and 191 eggs per year in the Seychelles, if production figures are accepted.

With per capita consumption in countries such as the US, Russia, Mexico, Japan and China exceeding 220 eggs per annum and, in some cases, approaching an egg a day, there remains considerable scope in the SADC region to increase local per capita consumption. The egg continues to be a cheap source of high quality protein when compared to other animal proteins.

As with broiler production, South Africa dominated the egg industry in the SADC region in 2018; accounting for 59.3 % of total production (FAOstats); down from 66.5 % in 2014. Mozambique increased its capacity by 163 % in the 10 years to 2018, taking market share from South Africa. Angola, the Democratic Republic of the Congo, eSwatini (Swaziland), Madagascar, Malawi, Mauritius, Tanzania and Zambia all grew their egg industries over the ten years to 2018 without reducing South Africa's share of the overall market significantly.

Table 4: *The production of chicken eggs in the SADC member countries in 2018* (FAOstats).

	Production		% Growth	% Total production		Population
SADC Country	**2008**	**2018**	**(10 yr)**	**2008**	**2018**	**2018**
Unit	Tonnes	Tonnes	%			M
Angola	4 572	5 100	+ 11.5	0.7	0.7	30.81
Botswana	4 500	3 670	- 18.4	0.7	0.5	2.25
Dem. Republic Congo	7 500	7 751	+ 3.3	1.1	1.0	84.07
Lesotho	1 625	1 052	- 35.3	0.2	0.1	2.11
Madagascar	15 780	17 700	+ 12.2	2.3	2.3	26.26
Malawi	20 000	22 937	+ 14.7	3.0	3.0	18.14
Mauritius	11 000	12 800	+ 16.4	1.6	1.7	1.27
Mozambique	18 990	50 000	+ 163	2.8	6.5	29.50
Namibia	3 265	2 659	- 18.6	0.5	0.3	2.45
Seychelles	1 187	1 109	- 6.6	0.2	0.1	0.10
South Africa	426 000	453 588	+6.5	63.3	59.3	57.79
eSwatini (Swaziland)	1 050	1 001	-4.7	0.2	0.1	1.14
United Rep. of Tanzania	85 239	108 700	+27.5	12.7	14.2	56.31
Zambia	42 750	52 597	23.0	6.4	6.9	17.35
Zimbabwe	29 280	24 697	- 15.7	4.4	3.2	14.44
Total for SADC	**672 738**	**765 361**				**343.99**

4. DAY-OLD CHICK SUPPLY INDUSTRY

4.1 Overview

The day-old chick industry supplies inputs to both egg and broiler businesses. Pure lines are imported at great-grandparent or grandparent level. Most imports are at grandparent level, with some parent level imports. No commercial level day-old chicks or fertile eggs may be imported under normal circumstances.

The broiler industry in South Africa predominantly makes use of two breeds: the Cobb 500 and the Ross 308. The Arbor Acres breed holds a much smaller share of the market. The international breed companies for each of these breeds have granted the distribution rights to the parent stock to only three companies in South Africa. These companies supply parent stock to integrated and non-integrated broiler breeder operations, where the parent birds are reared until they are ready to start producing fertilised eggs. These fertile eggs are then transferred to hatcheries where the eggs are hatched to produce day-old broiler chicks, which are sold to independent broiler growers or are used in-house by fully integrated companies.

Since it requires a significant capital investment and specialised knowledge to start up and run a day-old chick business, the industry consists mostly of large producers. Only a few of the broiler day-old chick producers are not integrated businesses.

The day-old broiler chick industry can be profitable but is exposed to the same risks as the rest of the poultry industry: high feed costs, market-related risks and disease outbreaks put pressure on margins.

A small percentage of the day-old chicks produced are exported to neighbouring African countries. There is a reasonably large export market for hatching eggs and most of the exports are done via a local company that is well connected to export markets.

The industry is spread over the whole of South Africa with higher concentrations of producers in Gauteng, the Cape, KwaZulu-Natal and North West regions.

The commercial layer industry makes use of the following breeds: Dekalb (Amberlink), Hyline (Silver Brown and Brown) and Lohmann (Lite). Producers use the Hyline W36, a Leghorn-type bird, to produces white shelled eggs for a limited, niche market.

The major suppliers of day-old pullets to large and small egg producers are independent operations. Some form part of an integrated business. Day-old layer pullets and fertilised eggs are also exported to other parts of Africa. The majority of the day-old layer chick suppliers are currently situated in Gauteng, North West and the Western Cape.

As with the broiler day-old chick suppliers, entry-level costs of this sector of the poultry industry are high, requiring substantial inputs of capital and skill to start such a business. This industry can be profitable but is also very vulnerable and profitability is highly dependent on feed price levels and the absence of disease challenges.

The following factors influence the day-old chick industry:

- It is a time-consuming process, due to the lag time in expansion of commercial chick numbers: at least 18 months are required from pure lines and six months from parent stock.
- The Livestock Improvement Act stipulates pure line imports.
- A quarantine period of eight weeks from day-old applies to all imported live chicks.
- During the whole rearing period, it is critical to control the mass of parent females, especially between 18 and 24 weeks of age. If birds are not fed according to breed standards, the number of fertile eggs and overall profitability will be lower.

Figure 7 illustrates the poultry meat process from breeding stock being imported to the first commercial product produced:

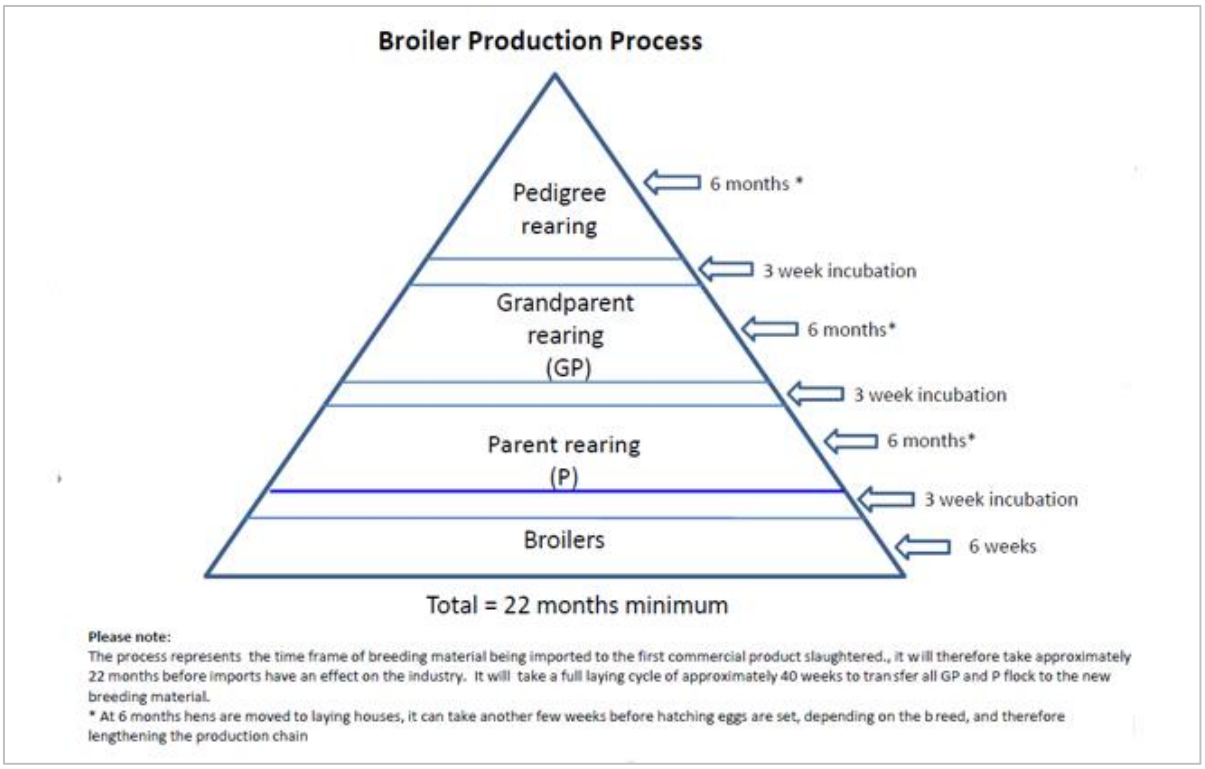


Figure 7. *The broiler production process, from importation of breeding stock to slaughter*

Figure 8 illustrates the egg production process until the first descendant starts laying eggs. The egg industry does not import and rear pedigree layers. Grandparents are imported.

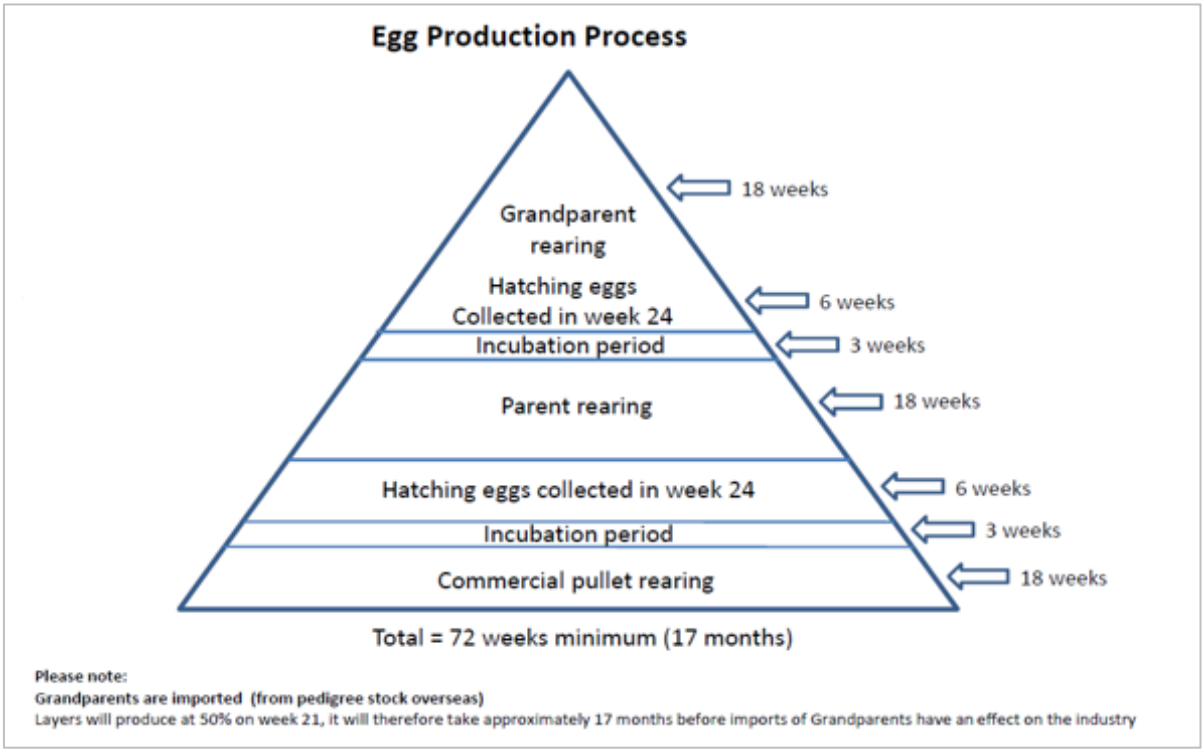


Figure 8. *The egg production process, from rearing of grandparent stock until point of lay*

4.2 Production: Chick placement numbers per annum

Layer breeders

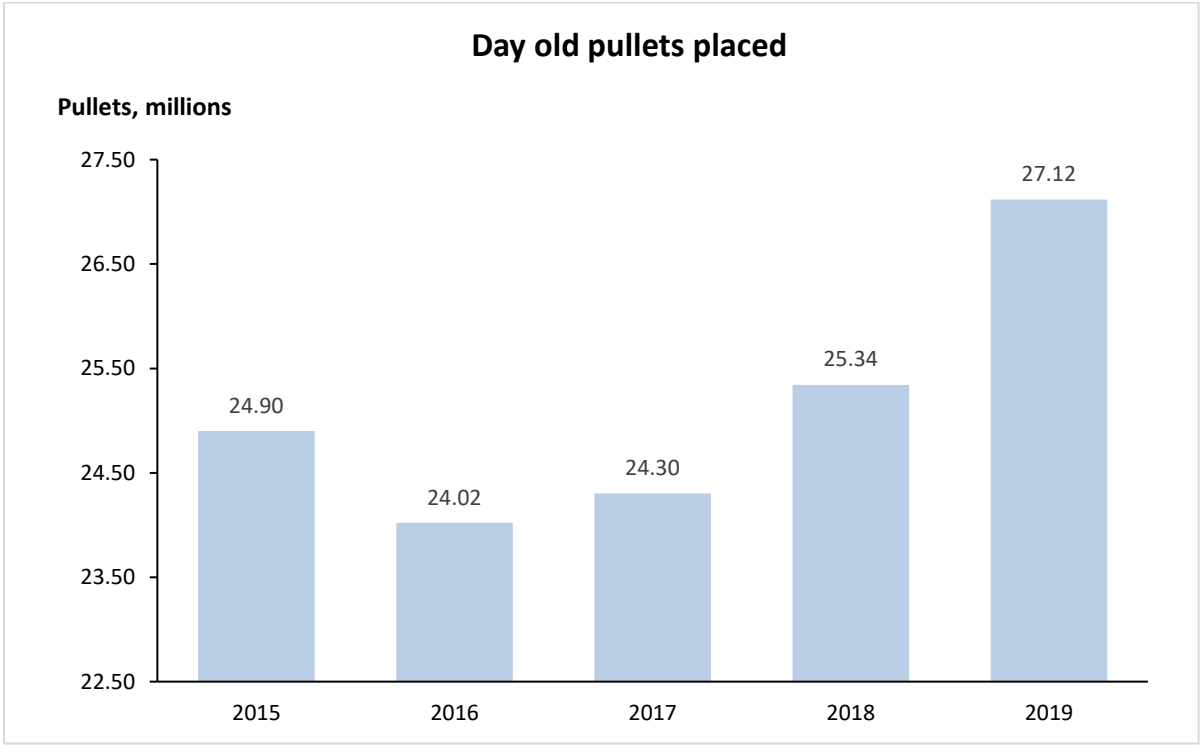


Figure 9. *The total day-old pullets produced per annum in South Africa*

In 2019, there was an estimated 7 900 layer breeding birds in grandparent operations producing layer parents, and between 222 000 and 309 000 layer breeding birds in parent operations producing layers. There are no pure lines or great-grandparents in South Africa.

From the breeding stock, 27.12 million day-old pullets were produced, an increase of 7.0 % compared to 2018 (Figure 9, above). The growth in hatchery output occurred in response to the huge loss of laying hens during the HPAI outbreak of 2017 and increased egg prices through 2018.

In terms of feather colour, 57.7 % of the day-old pullets hatched were silver strains and 42.3 % were brown strains.

Broiler breeders

The average number of parent males and females in rearing during 2019 was 3.855 million per week (Table 5), from an estimated grandparent and great-grandparent stock of 205 100. This is an increase of 220 600 parent birds (+ 6.1 %) compared to 2018.

A total of 9.455 million day-old female parent pullets were placed in 2019; 441 106 (+ 4.9 %) more than in 2018. Based on the number of parent pullets placed, an average broiler breeder flock of 6.724 million hens was estimated for 2019 (Table 5; Figure 10). This showed an increase of 298 400 (+ 4.6 %) compared to 2018.

An average flock size of 6.882 million breeder hens was forecast for the first four months of 2020. Note in the figure below, the national flock size (blue line) is the average number of birds at any point in time; whereas the blue and pink lines represent the annual placement of parent pullets and production of 20-week old parents.

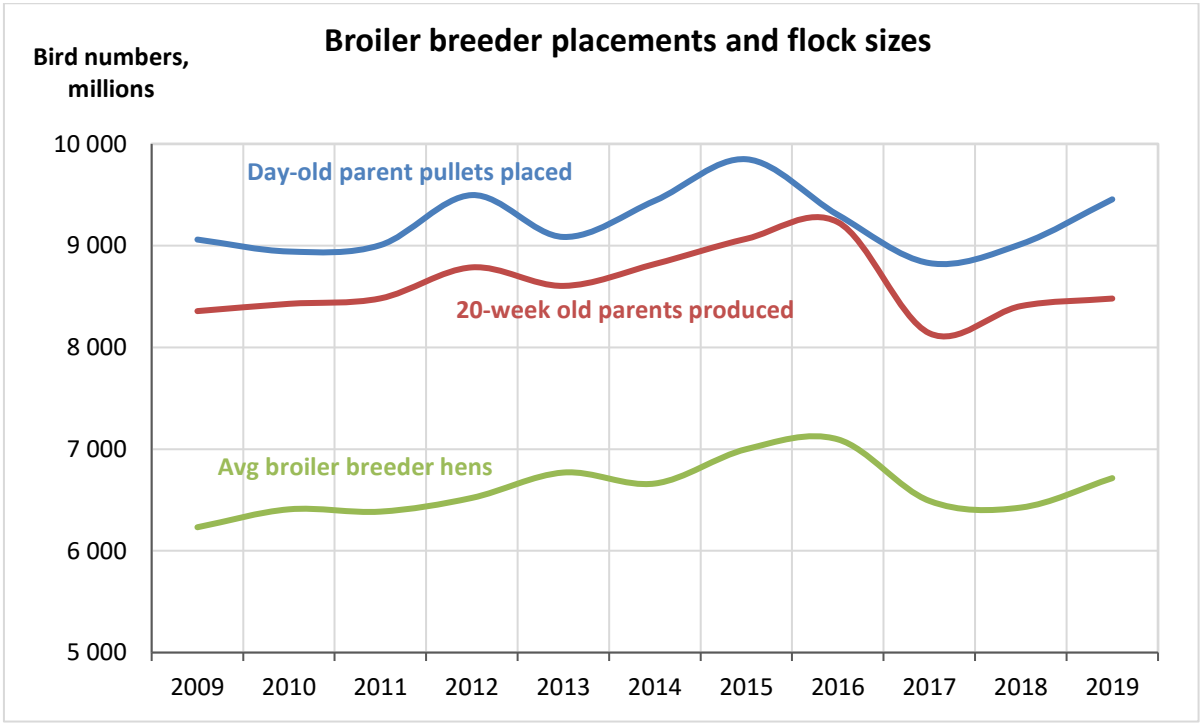


Figure 10. *Number of day old and 20-week parents placed per annum and average size of the national broiler breeder flock*

Table 5: *The broiler flock in South Africa (2019)*

Year	Av. broiler parents (m)		Breeding stock (m)	Day-old broiler chicks produced (m)	
	in rear	in lay	av. / week	av. / week	total / annum
2018	3.635	6.425	10.060	20.066	1 047
2019	3.855	6.724	10.579	20.660	1 079
% change	+ 6.1	+4.6	+ 5.2	+ 3.0	+ 3.0

Note: The number of breeding birds in Table 5 includes males and females; "m" = millions

In total, 1 079 million broiler chicks were placed during 2019; 31.7 million (+ 3.0 %) more than in 2018 (Figure 11).

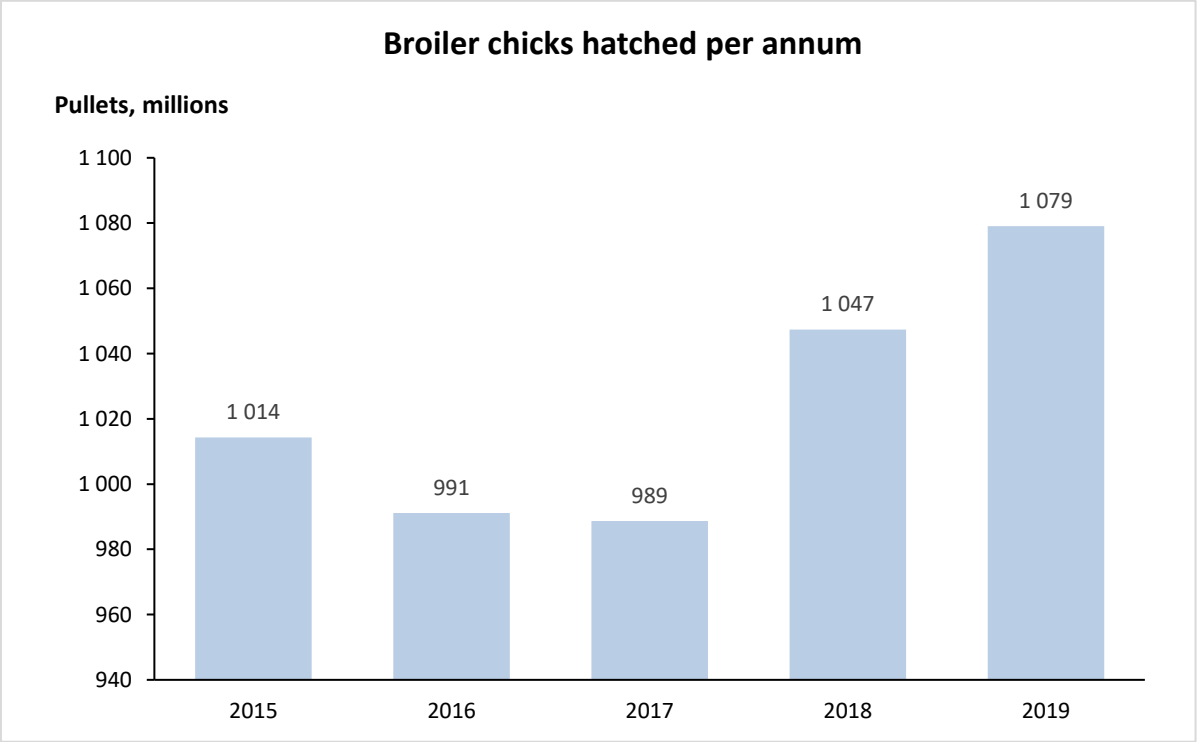


Figure 11. *Broiler chicks hatched per annum.*

4.3 Genetic progress

Genetic improvements in the biological performance of laying hens and broilers are demonstrated in Table 6.

The table shows how parameters used in the egg and broiler model have changed over the past few years (laying hens, 2013 - 2018) and since the 1960s (broilers).

Table 6: *Genetic progress in a) laying hens:*

Trait	2013	2018
Eggs per hen per annum	309.5	314.1
Kilogrammes feed per kg eggs	2.31	2.15
% hen-day production	84.8	86.0
Age at depopulation (weeks)	72/74	78

b) broilers:

Trait	1968	1998	2004	2018
Slaughter age (d)	62	42	38	33
Live mass (kg)	1.18	1.79	1.82	1.85

4.4 Feed usage (broiler breeders)

In terms of feed usage, broiler breeding stock consumed 515 774 tonnes during 2019 (Table 7).

Table 7: *Feed usage (tonnes) in parent and breeding operations*

Year	Parent rearing t/yr	Parent laying t/yr	Total broiler breeding stock t/yr	t/week
2018	92 732	398 728	491 459	9 245
2019	98 545	417 229	515 774	9 892
Change	+ 5 814	+ 18 501	+ 24 314	+ 466
% Change	+ 6.3	+ 4.6	+ 4.9	+ 4.9

5. EGG INDUSTRY IN SOUTH AFRICA

5.1 Overview

While 2018 was characterised by a serious shortage of eggs in the South African market, the story in 2019 has been quite the opposite. The industry recovered very quickly from the highly pathogenic avian influenza (HPAI) outbreaks in 2H 2017 but this recovery has been almost too effective. An imbalance between supply and demand has dogged egg producers in 2019, with downward pressure on egg revenues and an ever-increasing gap between producer and retail pricing. In excess of four million laying hens were added to the national flock in 2019 and egg prices dropped by 15.5 % on an annual basis. Retail prices also dropped but by only 7.6 %. The retail mark-up on producer prices was 62.2 % in 2017, 62.8 % in 2018 and 92.7 % in 2019. Feed prices have increased by over 15 % compared to last year and have put margins under further pressure.

Two years have passed since the HPAI outbreaks. South African producers have invested in biosecurity and there was no resurgence of the virus in winter 2019. The country is again self-sufficient in table egg production. Imports dropped by 55.2 % this year and were limited to processed egg products, such as albumins and dried yolks. There was only one case of HPAI in wild birds and no reported cases in backyard flocks. There were eleven outbreaks in commercial ostriches in 2019 and this continues to be a biosecurity concern for the wider poultry industry.

Export markets were adversely affected by the HPAI outbreaks. Egg exports (*Gallus domesticus)* dropped by 11.1 % in 2017 and a further 22.4 % in 2018. In 2019, exports recovered by 36.5 % but still account for less than 2 % of local egg production. Domestic consumption of shell eggs increased by 15.2 % in 2019, perhaps in reaction to lower retail prices. It will be important for the egg industry to capitalise on this increase and work to grow consumption further, through advertising and social media campaigns.

In 2019, new breed standards were applied to SAPA's egg forecasting model and the laying cycle used was extended by 4 weeks, to 78 weeks. This was gradually phased in from November 2017 so that the changes were fully implemented by January 2019. Hen and egg numbers reported below have increased as a result.

5.2 Turnover

With a gross turnover of R10.30 billion at producer level, eggs remain the fourth largest animal product sector in South African agriculture, after poultry meat, beef and milk (source: DALRRD). The turnover decreased by 9.9 % compared to 2018, after an annual increase of 15.6 % the previous year. Eggs' share of the gross value of animal products was 7.4 % and of all agricultural production 3.6 %, down from 8.2 % and 4.0 % the previous year.

The total value at retail level was R19.74 billion for 2019. About 726 million dozen eggs were sold in South Africa in 2019 through various channels.

5.3 Production

Laying flock

The size of the national layer flock increased during 2019 (Figure 12), as the industry continued to repopulate flocks after the devastating HPAI outbreaks experienced in 2H 2017. An average flock of 27.61 million hens was projected; an increase of 17.4 % compared to 2018.

To put the speed of the recovery in perspective, hen numbers increased from 21.33 million hens at the end of December 2017 to 25.97 million hens at the end of December 2019; a 21.7 % increase.

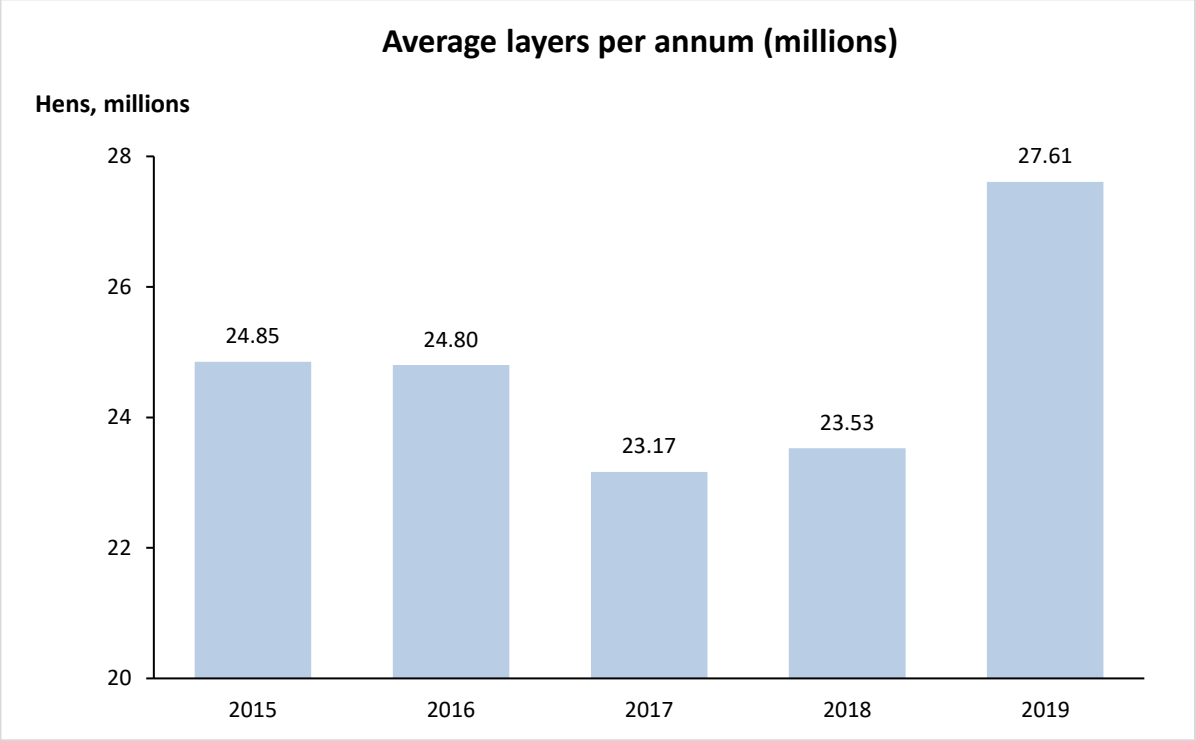


Figure 12. *The national layer flock since 2015 (millions)*

Egg production

There was a dramatic drop in egg production in the second half of 2017 because of HPAI-related culls in a number of large flocks (Figure 13). In 2018, as farms were repopulated, egg production increased steadily.

The average number of cases produced per week was 464 300, an increase of 70 800 cases (+ 18.0 %) per week. Total egg production in 2019 amounted to 24.21 million cases, or 726.4 million dozen eggs; an increase of 18.0 % compared to 2018.

There has been an increase in extra-large and jumbo eggs in recent years, due to a decrease in the percentage of Silver birds in the national flock. The percentage of Silvers decreased from 66.2 % in 2014 to 57.7 % in 2019.

Table 8, below, summarises bird numbers and egg production and shows the changes for 2019 compared to the previous year. The 7.0 % growth in day-old pullets placed reflects continued expansion in the industry post-HPAI. This expansion has resulted in an imbalance between supply and demand this year.

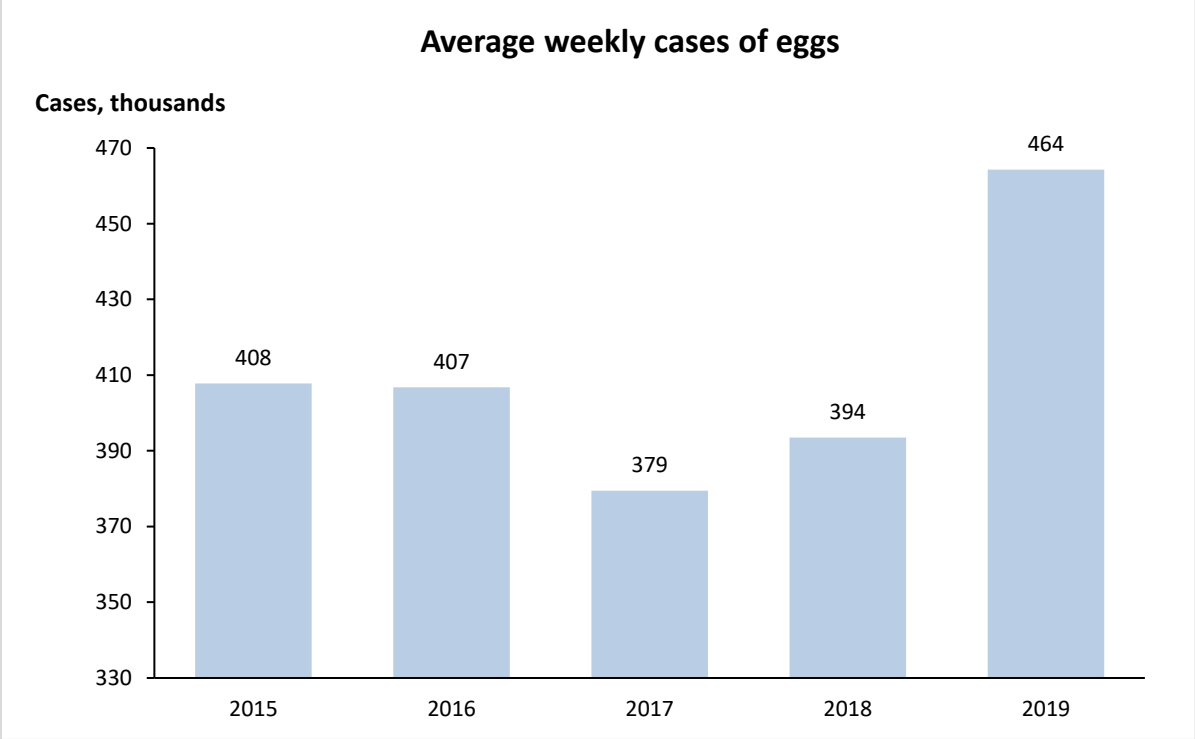


Figure 13. *Cases of eggs produced annually in South Africa (thousands)*

Table 8: *Bird numbers (millions) and egg production (million cases) for 2018 and 2019*

Year	DOPs	LRPs	Laying hens		Cases of eggs	
	Placed	Placed	Av. no.	Depopulated	Av./week	Total
2018	25.343	23.414	25.528	17.405	0.395	20.526
2019	27.117	25.465	27.610	21.570	0..466	24.214
Change	+ 1.774	+ 2.050	+ 4.082	+ 4.165	+ 0.071	+ 3.688
% Change	+ 7.0	+ 8.8	+ 17.4	+23.9	+ 18.0	+ 18.0

DOP = Day-old pullets
LRP = Layer replacement pullets

Figure 14 depicts the relationship between egg volume and the producer and PPI-deflated producer prices for eggs (PPI: producer price index; Stats SA). Please note: the percentage changes in egg prices presented in the graph are three-month moving averages. (PPI: producer price index).

High year-on-year increases in the producer price in 2013/14 were associated with a tightening supply of eggs (negative growth in egg production). As egg supply increased in late 2014/2015, producer prices dropped, year-on year. However, in late 2015, year-on-year increases in producer prices were pleasingly high, as egg prices tracked other protein sources up in the midst of the drought.

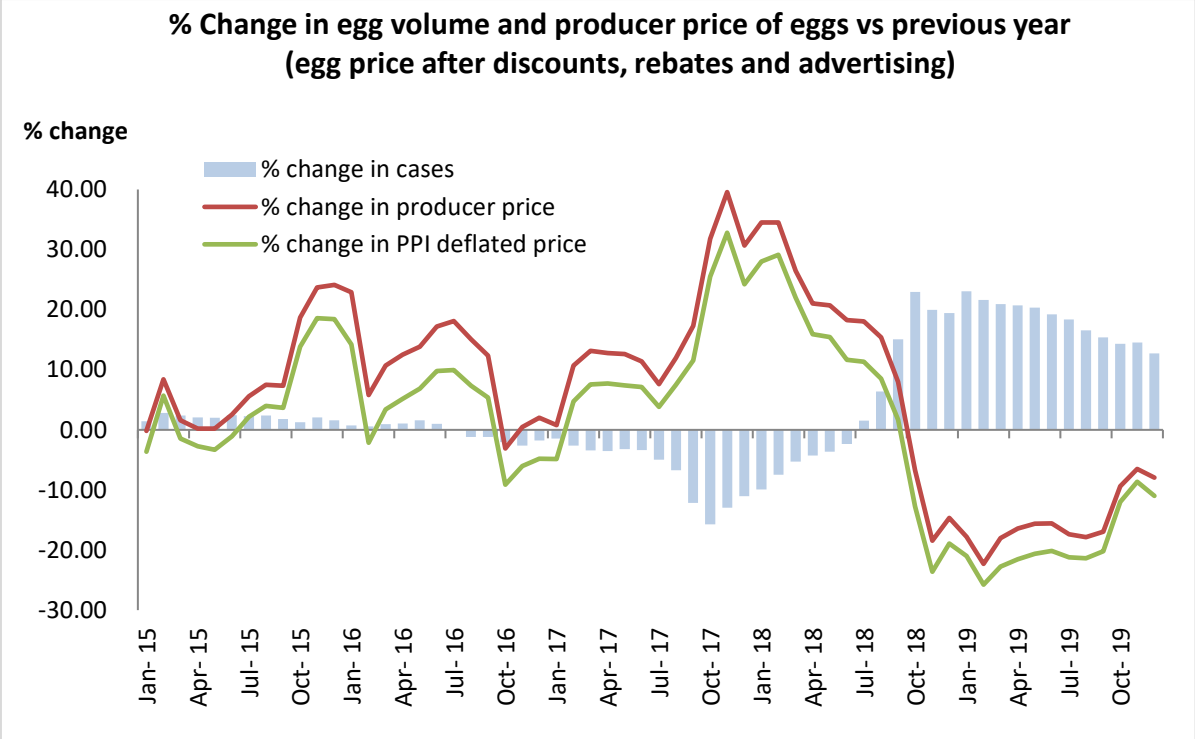


Figure 14. *Percentage change in egg volume and producer price (egg price after discounts, rebates and advertising)*

Year-on-year increases in producer prices dropped again from January 2016, recovered through the autumn and winter months and dropped back to neutral territory by December 2016 (i.e. 4Q 2016 producer prices were no higher than 4Q 2015).

Supplies tightened in 1H 2017 and producer prices firmed compared to the previous year. As avian influenza hit the national flock in mid-2017, egg shortages pushed producer prices much higher than in 2H 2016. As egg supplies began to recover in early 2018, year-on-year increases in the producer price began to decline, although prices remained very much higher than in the previous year.

Oversupply issues, exacerbated by unexpected imports of shell eggs from Brazil, began to arise from mid-2018. By October 2018, production was 20 % higher than in October 2017 because of

successful repopulation of HPAI affected farms. By December 2018, producer prices were almost 15 % below the inflated prices realised in December 2017. Through 2019, producer prices have been inversely proportional to egg volumes. Volumes in January 2019 were 23.9 % higher than in January 2018 and producer prices were 21 % lower. By December 2019, the annual increase in egg volumes had moderated to + 12.7 % and producer prices were 7.9 % below December 2018 prices.

It has to be hoped that supply and demand will balance better in 2020. The average number of point-of-lay pullets placed is expected to decrease by 7.2 % during the first four months of 2020, compared to the same period in 2019.

An average flock of 29.2 million hens is projected for the first four months of 2020; an increase of 2.4 million hens (+ 18.9 %) compared to April 2019. Consequently, egg production is expected to increase by 9.0 % (an average of 40 400 cases per week) to an average of 491 700 cases per week in April 2020, compared to the same month a year ago.

5.4 Producer and retailer egg prices

The average *producer* egg price (weighted) for 2019 was R14.10 per dozen; a decrease of 15.5 % from the average price for 2018 (R16.69; SAPA). Graded eggs have averaged R14.75 per dozen and ungraded eggs have sold at R11.84 per dozen. During 2019, 78 % of eggs were sold graded and 22 % ungraded. The average retail price for eggs, size large, was R27.17 per dozen in 2019 (Stats SA). In 2019, the retail price decreased by 7.6 % from 2018 prices (compared to the 15.5 % decrease in producer prices). The mark-up on graded eggs was 84.2 % in 2019; while the mark-up on all eggs (graded and ungraded) was 92.7 %. Quarterly weighted producer egg prices, for caged production, are shown in Figure 15.

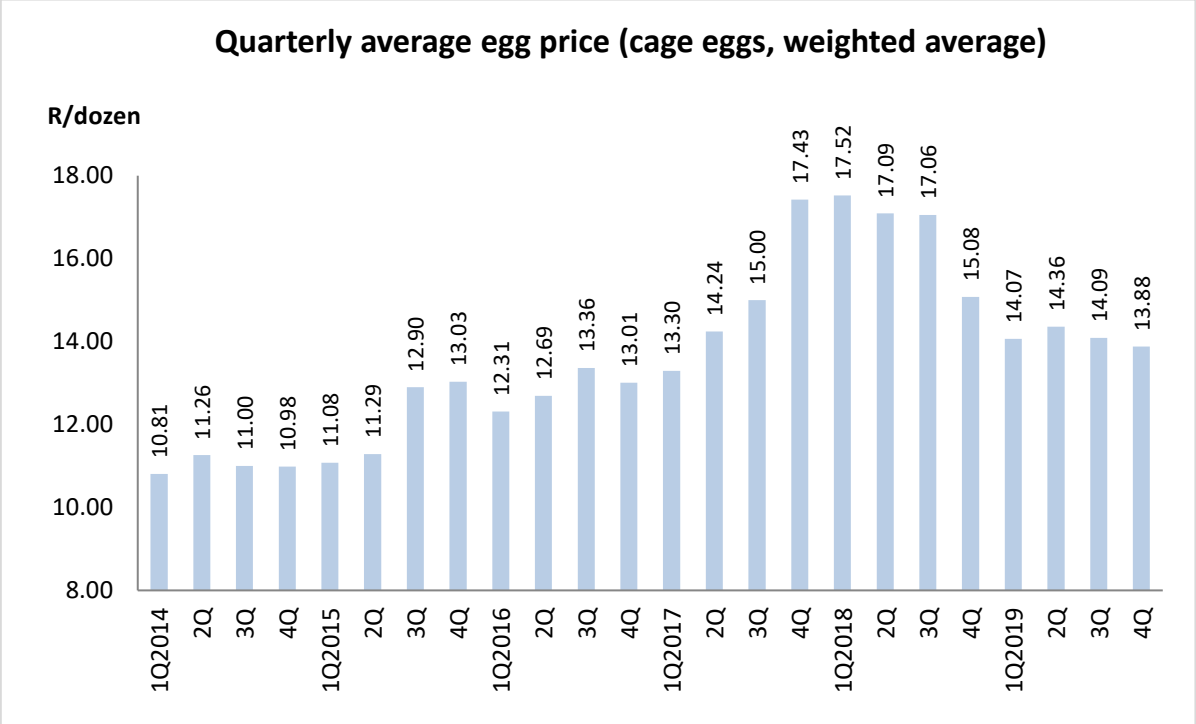


Figure 15. *Quarterly weighted producer egg prices (caged birds) from 1Q 2014*

5.5 Feed usage and cost

Layers, in all stages of the production cycle consumed 1.273 million tonnes of feed in 2019 (SAPA). These figures exclude breeder rations. Of this total, layers in rearing consumed approximately 0.157 million tonnes and hens in lay consumed approximately 1.116 million tonnes. The feed usage for layers and pullets in 2019 is summarised in Table 9 below.

According to the Animal Feed Manufacturers Association (AFMA), national sales of layer feeds to their members amounted to 1 012 082 tonnes from 1 January to 31 December 2019, a 14.5 % increase over 2018 levels.

Table 9: *Feed usage in the egg industry in 2019 (source: SAPA)*

Feed usage (tonnes)				
	Rearing per annum	Laying per annum	Total per annum	Total per week
2018	145 040	956 550	1 110 590	21 126
2019	157 284	1 115 512	1 272 796	24 410
Change	+ 12 244	+ 158 962	+ 171 205	+ 3 283
% change	+ 8.4	+ 16.6	+ 16.6	+ 15.5

The average layer feed price indicator for 2019 increased by 17.4 % compared to 2018, to R3 830 per tonne. This followed year-on-year decreases of 5.7 % and 15.0 % in the previous two years (2019 and 2018, respectively). The layer feed price indicator includes distribution, but excludes medication, additives and VAT. The movement in the feed price is shown in Figure 16.

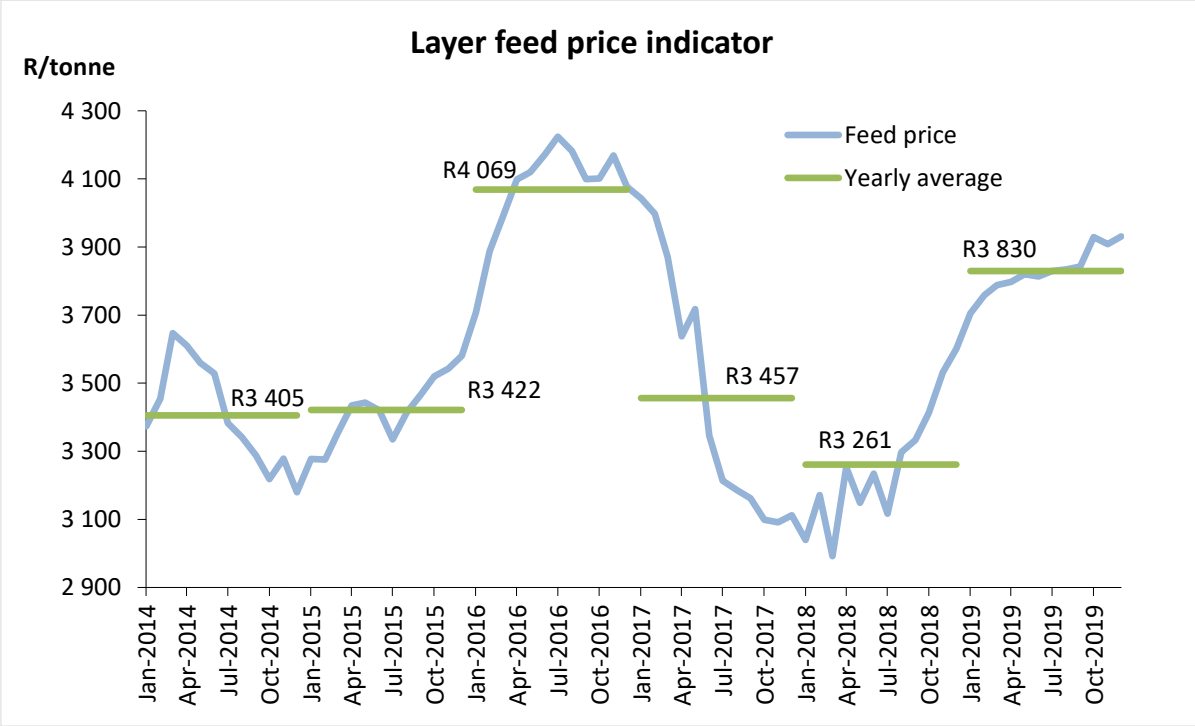


Figure 16. *The layer feed price indicator since January 2014*

Year-on-year percentage changes in the feed price index and the egg producer price are presented in Figure 17. Negative year-on-year increases in feed prices in the first half of 2015 allowed positive year-on-year increases in egg prices which continued in the second half of 2015, even with escalating year-on-year drought-related increases in feed prices from July 2015 onwards.

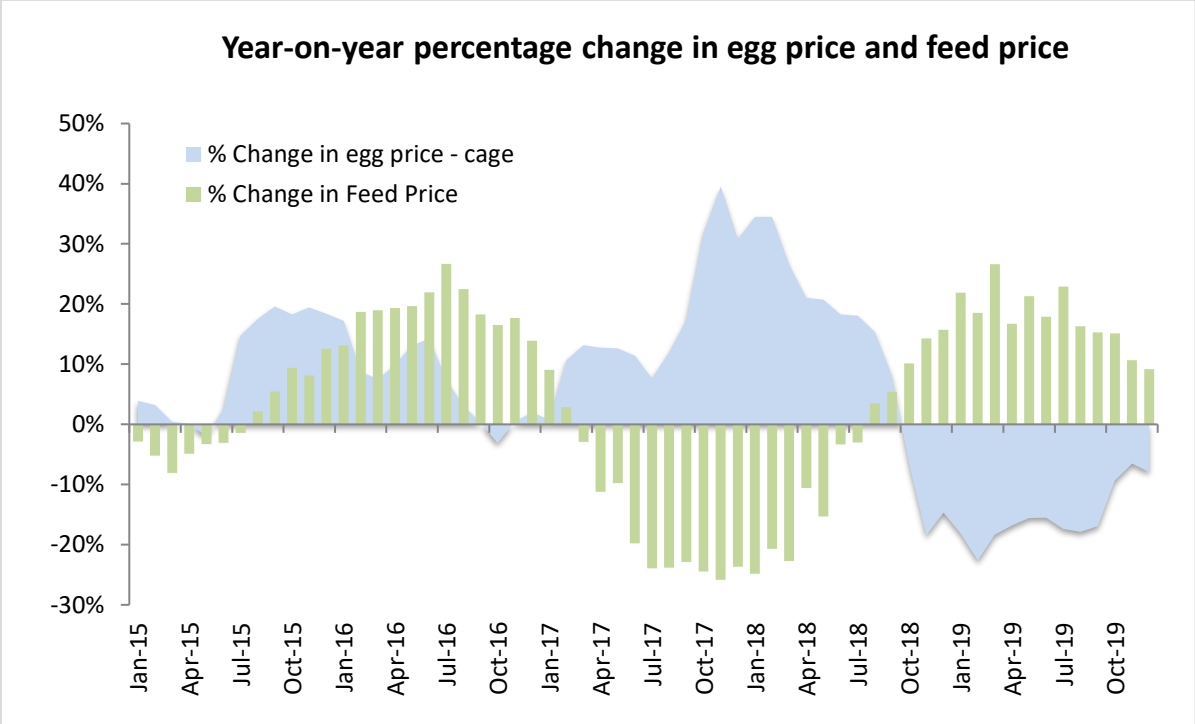


Figure 17. *Year-on-year percentage change in egg feed price and producer price*

In 2016, feed prices only started to reduce relative to 2015 prices from July onwards, but egg prices also tracked downwards from mid-year so that, by 4Q 2016, egg prices were back to 4Q 2015 levels. As feed prices in 2017 continued to drop relative to 2016 prices, egg prices firmed nicely in 1H 2017 compared to the same period in 2016. When avian influenza hit the national flock in mid-2017, egg prices increased dramatically compared to prices in 2H 2016, whilst feed prices remained much lower. Egg farmers who did not suffer culling losses during the outbreak benefitted from the egg shortages experienced in the second half of 2017. Although egg prices dropped steadily through 2018 as farms restocked, prices remained strongly above 2017 prices until mid-year when an oversupply (exacerbated by unneeded imports of shell eggs from Brazil) sent egg prices into negative territory, year-on-year. Feed prices climbed steadily through 2018 but remained below 2017 prices until mid-year. From August 2018, right through 2019, feed prices have exceeded 2017/2018 prices. Conversely, monthly producer prices from August 2018 have been consistently lower, year-on-year. In December 2018, feed prices were 15.7 % above December 2017 prices; whereas egg prices were 14.7 % below the December 2017 level. This gap was at its widest in February 2019, when feed prices were 18.5 % higher than in February 2018, but producer egg prices were 22.6 % lower than the previous year. By December 2019, feed prices were 9.2 % higher than in December 2018, but producer prices were stubbornly 7.9 % below egg prices realised twelve months earlier.

5.6 Consumption

The per capita consumption for 2019 was 152 eggs or 9.3 kg, compared to 132 or 7.95 kg per person in 2018 (source: SAPA).

While the population increased by a mid-year estimate of 1.8 % (Stats SA), the total consumption of eggs increased by 15.2 % (Figure 18).

The reduced availability and increased price of eggs in 1H 2018 (due to the avian influenza outbreak) had a marked effect on consumption in 2017 and this lingered into 2018.

Abundant supply and lower prices have encouraged increased consumption in 2019. Peak egg consumption in South Africa occurred in 2012 at 152.5 eggs per person.

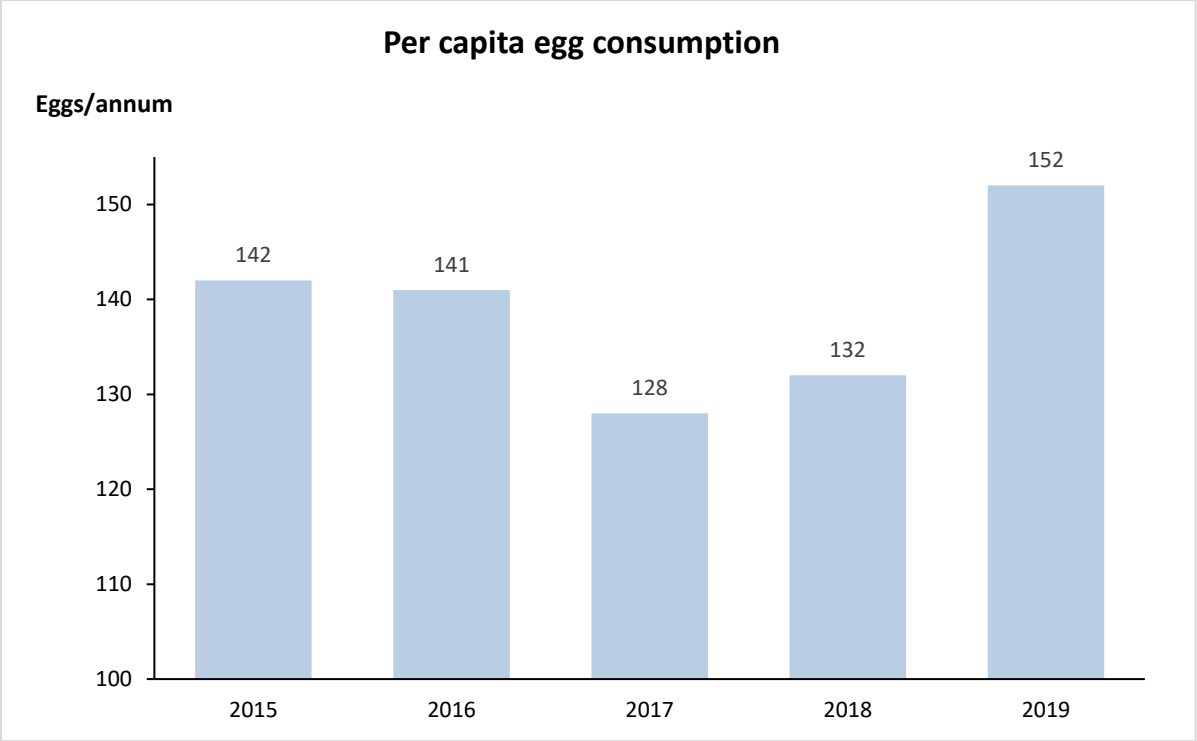


Figure 18. *Per capita egg consumption in South Africa from 2015*

The annual per capita consumption of eggs for some of the top egg-eating nations is shown in Figure 19, for 2018.

Considerable scope exists for increasing the per capita consumption of eggs in South Africa, particularly when taking into account the price competitiveness as a protein source compared with other animal proteins.

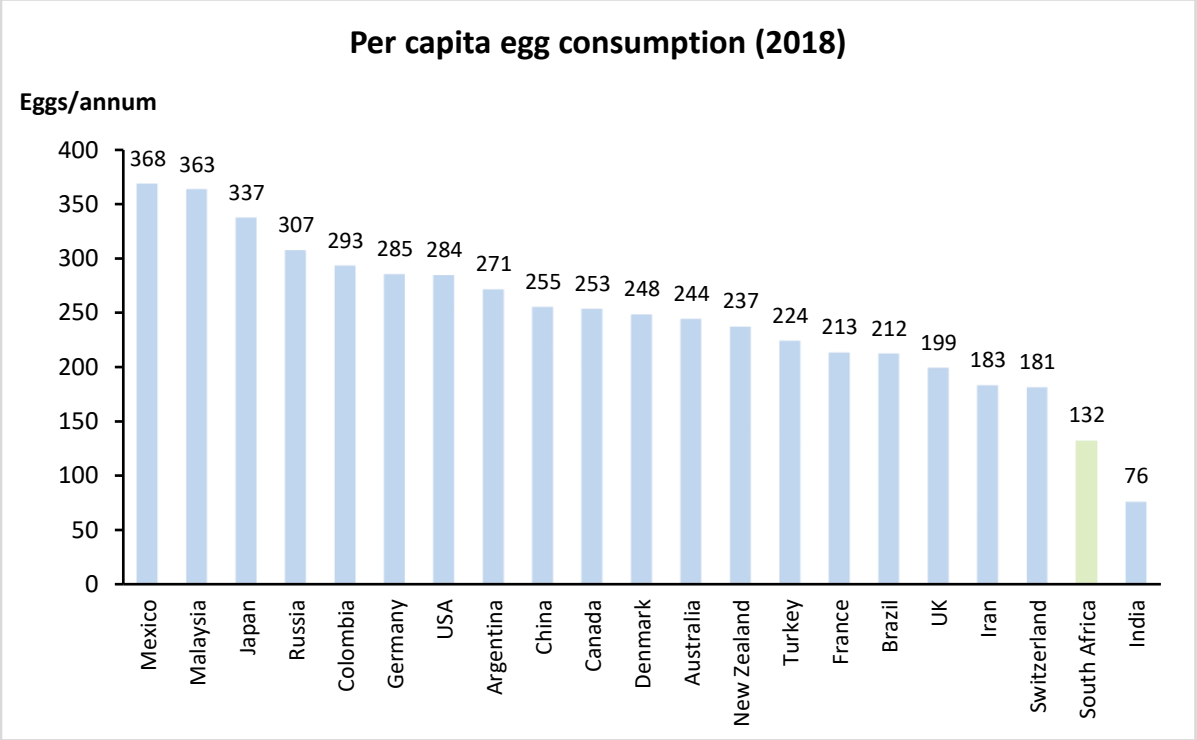


Figure 19. *Global per capita consumption of eggs in 2018 (source: IEC)*

5.7 Trade

Egg exports

Egg exports for 2019 totalled 14 458 tonnes (*Gallus domesticus*), an increase of 36.5 % compared to 2018. The total value of all egg exports was R337.5 million (+ 20.2 %; Table 10).

Table 10: *Annual egg exports in 2019 (source: SARS)*

Product (*Gallus domesticus*)	Value (R million)	Quantity (tonnes)	% of exports
Fertilised eggs for incubation	177.6	4 391.0	30.4
Shell eggs (fresh and preserved)	157.2	9 941.5	68.8
Egg product (yolks, raw pulp, albumins)	2.73	125.3	0.9
liquid egg product	*0.42*	*42.2*	
dried egg product	*2.32*	*83.1*	
Total exports	337.5	14 457.8	100.0

Of the 14 458 tonnes exported, fertilised eggs accounted for 4 391 tonnes (30.4 % of total exports) at an FOB value of R177.6 million.

Besides fertile eggs, 10 067 tonnes of shell eggs and egg product were exported, at an FOB value of R159.9 million. This total breaks down into 9 941.5 tonnes of fresh shell eggs (68.8 % of total; FOB R157.2 million) and 125.3 tonnes of dried and liquid processed egg products (0.007 % of total; FOB R2.73 million).

The bulk of the egg products exported were dried (83.1 tonnes; 66.3 % of total egg products). Dried product comprised 81.1 t dried egg (not yolks); 1.8 t dried yolks; and 0.2 t dried egg albumins. Liquid egg products totalled 42.2 tonnes (33.7 % of total egg products); of which 38.8 tonnes were liquid egg yolks; 3.2 t raw egg pulp (chicken and other); and 0.26 t egg albumins.

The FOB value of dried egg products was R2.32 million and the FOB value of liquid egg products was R0.42 million.

The main countries of destination during 2019 were Mozambique (85.1 % of exports), Swaziland (11.9 %) and Botswana (2.2 %).

Hen egg exports continue to operate from a low base, being only 1.89 % (10 067 t) of total egg production (533 375 t) in South Africa in 2019; down from 1.5 % in 2018.

Egg imports

Total imports of chicken eggs, including fertile eggs, shell eggs and egg products (liquid and dried), decreased from 1568.2 tonnes in 2018 to 703 tonnes in 2019 (- 865 t; - 55.2 %). Imports had a free-on-board value of R59.79 million (- 44.7 %). Imports of shell eggs were recorded at only 1 kg in 2019, compared to 488.1 tonnes the previous year when shell eggs were imported from Brazil in response to the shortage created by the HPAI outbreak.

Dried egg products (including albumins) accounted for 98.2 % of egg imports into South Africa in 2019. National self-sufficiency in table eggs was restored in 2018, as the local industry quickly recovered from the 2017 HPAI outbreak. Imports of eggs and egg products (excluding fertile eggs) represented 0.13 % of total egg production (533 375 tonnes) in 2019.

Imports of fertile eggs reached 6.0 tonnes in 2019, down 77.7 % because restocking efforts were largely concluded in 2018. Fertile eggs represent 0.85 % of total imports.

The main countries of origin of egg imports were the Netherlands (274 t; 39.1 %), France (23.9 %), Italy (20.7 %), Denmark (9.7 %), Argentina (3.6 %) and Belgium 1.6 %.

5.8 Provincial distribution of layers on layer/layer breeder farms

In a recent Avian Influenza (AI) surveillance survey, the location of layer farms was recorded. The survey covers layer breeders, day-old pullets, layers in rearing and layers in lay.

Table 11 gives the provincial distribution of layer farms (breeder, rearing and in-lay).

A total of 232 farms reported in the AI survey, of which 28 were layer breeder farms, 33 were layer rearing farms and 171 were commercial laying hen farms. We continue to try to improve the representation of producers in this survey for disease control and management purposes.

Table 11: *Provincial distribution of layers in South Africa (2019)*

Province	Layer birds	% of total layer birds
Eastern Cape	897 168	3.0 %
Free State	4 692 805	15.5 %
Gauteng	7 268 977	24.0 %
KwaZulu-Natal	3 021 668	10.0 %
Limpopo	1 534 058	5.1 %
Mpumalanga	2 890 851	9.5 %
North West	3 383 410	11.2 %
N & W Cape	6 619 863	21.8 %
GRAND TOTAL	**30 308 830**	100 %

5.9 Regulatory issues

Amendments to regulation R725 of the Agricultural Product Standards Act (Act 119 of 1990: 'Regulations regarding the grading, packing and marking of eggs destined for sale in the Republic of South Africa') were published in the government gazette on 15 April 2016 as 'No. R. 440'. In this document, production methods were defined as barn eggs, free-range eggs, cage eggs and organic eggs. The new regulations came into effect on 15 April 2017.

In February 2017, it was announced that the Agency for Food Safety and Quality (AFSQ) had been appointed by DALRRD as the assignee to inspect poultry abattoirs, production units and egg packing plants under the Agricultural Product Standards Act, No. 119 of 1990. AFSQ is an independent company dedicated to ensuring the safety and quality of food products produced in or imported into South Africa. On 19 May 2017, DALRRD gazetted fees of R0.0006 per egg produced or packaged, that is, R0.0072 (0.72 cents) per dozen eggs produced or packed per month. In addition, producers are charged per hour on farm and for transport and additional laboratory costs. The inspection fees were valid from 1 June 2017 and are likely to be increased in 2020.

5.10 Challenges and prospects for the South African egg industry

A rapid recovery in bird numbers following the 2017 avian influenza outbreak, coupled with unnecessary imports of Brazilian eggs, resulted in an oversupply of shell eggs in 2H 2018. Producer prices dropped by 11.6 % in 4Q 2018. Prices softened further in 2019, as the number of day-old pullets placed increased by 7 % and the size of the national flock increased by 17.4 %, leading to an over-supply of eggs in the market. In February, prices were 22.6 % below February 2018 prices, but by year end, the drop in prices had eased to - 7.9 %. However, feed costs have risen steadily through 2019 and look set to hover around December 2019 levels for much of 1H 2020. Egg producers will find themselves under continued pressure unless demand can be increased, and will continue to fight retailers for a fair share of the price that consumers pay for eggs.

Egg producers in some regions still face challenges from lingering drought. At the end of winter 2019, eight out of nine provinces had dam levels lower than in September 2018. Only dam levels in the Western Cape had increased year-on-year, albeit from a very low base. By December 2019, the Eastern Cape had been declared a drought disaster area and dam levels in five provinces had shown no improvement over December 2018 levels. The most water-stressed provinces were as follows: Western Cape 59 % (up from 56 % y-on-y); Eastern Cape 47 % (*cf* 60 % a year ago); Limpopo 58 % (*cf* 59 %) and KwaZulu-Natal 54 % (*cf* 56 %). In its November 2019 *Seasonal Climate Watch* briefing, SAWS predicted the persistence of below-normal rainfall in eastern parts of South Africa, which would spread westwards into other parts of the country. The 2018/2019 maize crop is forecast to be about 10.6 % below last year's crop, at 11.19 million tonnes but the 2019/2020 crop is projected to be 29 % higher than the 2018/2019 crop. The domestic soybean harvest was strong in 2019, but still 24 % below last year's yield at 1.17 million tonnes. Next year's soybean crop is expected to exceed the 2019 harvest by about 6 %.

Local demand for eggs increased by 15.2 % in 2019 to 152 eggs per person/year. However, per capita consumption had decreased by 9.2 % in 2017 because of HPAI-related egg shortages and higher retail prices. Consumption is therefore only 7.8 % above 2016 levels and still 0.3 % below the peak consumption recorded in 2012 (152.5 eggs per person/year). Consumption remains disappointingly low compared to consumption in many developed and developing countries. The world average for per capita consumption is approximately 210 eggs. The Mexicans eat a staggering 368 per person per year (IEC, 2018). Recent research on cholesterol and the increasing popularity of high protein/high fat diets (which have resulted in an uptick in the consumption of eggs elsewhere in the world) have not increased the local appetite for eggs as dramatically. South Africa's consumption of eggs in 2016 (before the HPAI outbreak) was 32 % higher than in 2001; However, consumption of chicken meat increased by 80 % in the same period. The reasons for South Africa's relatively low consumption include:

- Preference for white meat over eggs, when money permits;
- Unfounded cardiovascular/cholesterol fears;
- Insufficient advertising (egg consumption does not increase with affluence as with broiler meat);
- Lack of understanding of nutritional value of eggs as a high-quality protein source/their value for money in this regard;
- South Africa's climate (less "cold morning" breakfasts served annually);
- Concerns about allergies (eggs are amongst the top eight food allergens, but many children grow out of this allergy);
- Food safety concerns (Salmonella; campylobacter);
- Constrained consumer spending;
- Welfare concerns.

In some African cultures (including eSwatini (Swaziland), Uganda and West Africa), the eating of eggs by women and female children over a certain age (usually about 6 years) is taboo. There is a belief that eating eggs may make women sterile or advance puberty. There is evidence that such concerns also exist in local cultures. If this is the case, then a large potential market for eggs is lost to a set of beliefs that has no basis in science.

It is estimated that for every 10 000 tonnes of eggs or egg products exported, over 300 jobs would be created in the egg industry. There is scope to increase consumption of South African eggs and egg products both at home and abroad. Advertising campaigns and innovative marketing have been used effectively in the US and UK to increase consumption of eggs. Celebrity endorsements and food-fads can be used to great effect in promoting quality products. Social media is undoubtedly a powerful tool in influencing consumer behaviour and a growing number of free-range farmers in the UK are using Twitter and Facebook accounts to advertise and reassure their customers about bird welfare and food quality. The egg industry should look to social media, egg printing, etc. to reinforce in the public's mind all that is good about eggs (selenium, vitamins A, $B_{12,}$ D, riboflavin, folate, high quality protein, choline, etc.) and to further dispel any lingering cholesterol concerns and cultural egg-eating taboos.

Vegan alternatives to real eggs are set to become an issue of concern for egg producers globally. Consumers are increasingly looking for evidence of wholesomeness, sustainability and animal welfare as they make food purchasing decisions. South America's largest egg producer has recently launched a plant-based vegan egg alternative, *N.Ovo.* Based on pea starch and plant protein, the product is a binding agent that can replace eggs in baked products and is now being sold in retail outlets. Of course, nothing could ever beat the real thing, but food scientists developing alternatives to shell eggs are getting alarmingly close to producing something that looks and tastes like scrambled eggs. San Francisco based JUST Inc. is producing a liquid "egg" product from mung beans. The company's CEO claims to have sold the equivalent of 10 million hen eggs to restaurants and retailers in a "matter of months". As meat alternatives such as "Beyond Meat" and "Impossible" burgers become more mainstream, producers of all animal proteins will need to work to keep their products competitive and to demonstrate their sustainability to consumers.

This year saw the cage-free egg revolution, which started in the United States in 2015, spread to Asia. In April 2019, fast-food chain Subway committed to transition to using only cage-free eggs in its 2 400 stores across the Asian continent. In June, a "Cage Free Egg China Summit" was held in Shanghai. China is the world's largest producer and consumer of eggs. Supermarket giant Tesco have followed Subway, Marks and Spencer's, Carrefour and Aldi in adopting a cage-free policy across their Asian operations. Tesco are market-leaders in the retail sector in Thailand and Malaysia. In November 2016, McDonald's South Africa pledged to transition to sourcing eggs from only cage-free producers by 2025. In September 2018, local activists began a campaign aimed at encouraging restaurant giant Famous Brands to follow suit. Famous Brands' stable includes Wimpy, Mugg & Bean, House of Coffee and Steers. The South African Faith Communities Environment Institution (SAFCEI) succeeded in their mission to win a cage-free pledge from the CEO of the company, Darren Hele. It is reported that the group will transition to sourcing 50 million eggs a year from cage-free egg suppliers by 2025. Good news for producers is that researchers at agricultural universities (especially in the US) are starting to construct facilities that will allow them to support farmers with research into cage-free production and help make this type of production cost-effective.

In a decision which will serve to keep egg production systems in the public's eye, the German Federal Administrative Court ruled that the industry may continue killing male chicks until a solution is found to allow separation of male and female eggs before incubation. French

authorities have taken a similar stance: the killing of male chicks will be outlawed from the end of 2021, by which time a solution should have been found. German start-up Seleggt is currently offering its *in ovo* sexing technology for free to hatchery operations in Germany as they work to speed up the process and increase the accuracy to reduce sexing costs. The patented technology, "Seleggt", which can sex eggs within 9 days of fertilisation, uses a chemical marker to detect a hormone only present in "female" eggs. Eggs can be sexed with 98.5 % accuracy. "No-kill" eggs produced using the technology have been sold in retail outlets in Berlin since December 2018 and will be available at Penny and Rewe stores all over Germany by the end of 2019. Meanwhile, Australian scientists are tackling the welfare issue in a different way, which does not require a hole to be drilled in the egg shell. Genetic engineering is used to modify the hens' genome so that they produce male-chromosome eggs which "glow" under laser light.

The cage-free revolution and humane disposal of male chicks are no longer "horizon issues" for South African producers. The World Organisation for Animal Health (OIE) has, over the past few years, been drafting welfare standards for the keeping of laying hens. A draft document was sent to member countries for comment by December 2018. This draft proved controversial as it called for the provision of both nest boxes and perches in production systems. This would effectively exclude conventional cages. Although the standards are not legally binding, member countries have agreed in principle to write the standards into domestic law. SAPA submitted inputs through the Chief Director of Animal Production and Health (DALRRD), Dr Bothle Modisane. Because of the large volume of submissions received in response to the draft document, the OIE's *ad hoc* group was reconvened in 2Q 2019 to consider the input and rewrite the chapter. The Code Commission requested that the *ad hoc* group also take into account social and economic considerations, as well as the possible impact on food security, when developing the revised text. The Code Commission highlighted that the revised chapter allowed for the continuous development of country specific animal welfare recommendations and monitoring for implementation. The revised new draft "Chapter 7.Z Animal welfare and laying hen production systems", completed in September 2019, has been proposed for adoption at the 88th General Session in 2020. The OIE standard will eventually impact on local producers. Businesses may face negative consequences if they do not recognise, evaluate and respond to global trends effectively and in good time. Some local producers are already restructuring their businesses to take advantage of changes in the global industry.

Egg sales rose by 3.4 % in the UK in 2019 (+ 220 million eggs) and the increase is attributed to the growing popularity of 'flexitarianism'. Flexitarians eat a largely plant-based diet, with small amounts of meat and limited refined foodstuffs. While most food writers claim that flexitarians choose to cut back on dairy and egg consumption, in reality, many turn to eggs to ensure an adequate intake of high-quality protein. In March 2019, data analytics group, YouGov, released a report entitled "*Is the future of food flexitarian?".* Of the British flexitarians polled, 93 % had no intention of becoming vegetarian or vegan within a 12-month period. However, the report suggested that 69 % of the flexitarians surveyed wanted to cut back on the amount of meat in their diet; and 27 % of meat-eating respondents (who didn't identify as flexitarian) also stated a desire to cut back on meat consumption. These findings suggest an opportunity for egg and dairy farmers to promote their high-quality protein products as part of a flexitarian diet.

The Guardian has reported that Britons threw away an estimated 720 million eggs in 2018, because of an overly cautious approach to “best-before” dates on egg packaging. Many of these eggs would still have been perfectly safe to eat; their freshness easily tested by placing each egg in a bowl of cold water. Eggs which are not fresh, float. Clearly, there is a need for the industry to educate consumers on how to store and use eggs.

In the first half of 2019, two contradictory scientific reports were published on the association between egg consumption and cardiovascular disease (CVD) and early death. The first, published in March in the Journal of the American Medical Association, reported on data from almost 30 000 Americans tracked over a thirty-year period. The research team, from the Northwestern University’s Feinberg School of Medicine in Chicago, concluded that “higher consumption of dietary cholesterol or eggs is significantly associated with higher risk of incident CVD and all-cause mortality, in a dose-response manner”. The interpretation and findings of this study have been criticised. Human nutrition studies are fraught with difficulties and limitations. In this case, participants’ egg consumption was based on dietary recall and assessed only once. The study is contradicted by a Finnish study reported in the American Journal of Clinical Nutrition in May 2019. The Finnish researchers found that consumption of up to one egg a day was not associated with increased risk of stroke. In May 2018, Chinese researchers, working with data from around half a million patients, concluded that an egg a day could *reduce* the risk of stroke. Nutritionists and sport scientists are largely in agreement – the nutritional value of eggs is high and should be exploited in a balanced diet. Eggs should be eaten in combination with other healthy foods, not smothered in trans fats, and consumed in moderation.

Recent research suggests that infants introduced to small amounts of egg in the diet from as early as three months are less likely to suffer from egg allergies later in life. This could have important implications for childhood nutrition: many of the common food allergies relate to foods which contain high quality proteins, and which are also good sources of vitamins and minerals.

A statutory levy on table eggs was gazetted and came into force from 27 July 2018. All egg producers and packing stations contribute 1.5 c/dozen eggs traded to support SAPA’s Egg Organisation. Until the reintroduction of the levy, the Organisation relied on the support of a few egg producers paying a voluntary levy. The levy is collected by the Red Meat Levy Administrator. The levy is used to fund transformation initiatives, training, marketing and consumer education and awareness projects.

6. BROILER INDUSTRY

6.1 Overview

The 2018/2019 maize harvest was some 10 % lower than the previous year. Although still a strong crop, SAFEX yellow maize prices increased by an average of 27 % between July 2018 and July 2019. Broiler feed prices tracked the climbing maize price from August 2018 to April 2019 before stabilising through the remainder of 2019, at a level 2.9 % above prices experienced at the height of the drought (2016). Once again, producers enter a new year under pressure as input prices continue to rise.

Where the feed price index increased by 9.5 % year-on year, producer prices for broiler meat increased by only 2.0 % in 2019. Local producers drew attention to the negative effects of high levels of imports as they reported serious declines in operating profit for the 2018/2019 year. Sales volumes have been under pressure, input costs rising, municipal infrastructure crumbling, the electricity supply faltering, and industrial action escalating. All contribute to a hostile trading environment, in which consumer spending remains constrained. Meat importers' claims that broiler producers are enjoying bumper profits are outdated and do not consider the financial situation of companies over the longer term. A few good months while feed prices dropped after the drought are not a measure of the real, long-term trading environment in this country.

The European Union (EU) has used its economic partnership agreements (EPA) to dump highly subsidised agricultural products into African countries, with devastating consequences. The chicken industries in Ghana, Côte d'Ivoire, Senegal and Cameroon have essentially been destroyed by imports. Our own government, meat importers and the EU continue to claim that local producers are inefficient, even when this has been roundly disproved by an updated University of Wageningen study (see Chapter 2.7). Wageningen University and the Bureau for Food and Agricultural Policy recently updated a 2015 evaluation of the competitiveness of South African broiler producers in comparison with their EU, US and South American counterparts. It will come as no surprise that South African broiler farmers can produce a kilogramme of meat more cost effectively than EU producers. In turn, US and Brazilian producers produce chicken more cost-effectively than SA producers, but benefit from cheaper feed costs and farmer subsidies.

The EU's executive arm has denied that the EU is dumping chicken and has accused the local industry of suffering from structural problems that affect its competitiveness. It blames South Africa for unfairly protecting its chicken industry with import duties that mask its inability to compete in global markets. The reality is that EU poultry producers benefit from direct and indirect subsidies, assistance with exports, and quota protection. There are also animal health and welfare measures to provide the EU with additional phytosanitary protection from imports. A report by Paul Goodison, from the Danish Institute for Trade and Development (Initiativet for Handel og Udvikling), entitled '*The impact of EU poultry sector policies on sub-Saharan African countries*' confirmed that EU chicken exports have undermined efforts to develop local production in an increasing number of sub-Saharan African countries. In the article, he discussed the benefits which accrue (even if indirectly) to EU poultry farmers from the EU's Common Agricultural Policy (CAP). Goodison argues that although poultry consumption in the sub-

Saharan region increased by 99 % in the decade from 2004, much of this increased consumption was in the form of frozen imports (at 44 % in 2014). Local industries did not enjoy the growth that might have been expected and hoped for. Imports in this same decade increased by 209 %. The EU trade regime, based on import quotas, allows a level of cross-subsidisation of poultry exports and, since most of the exported product is essentially "waste" product in European markets, the price received for this product needs only to exceed the cost of transportation minus the cost of alternative disposal methods (rendering/incineration, etc.) to make exportation financially viable. Importantly, Goodison stated that although EU support measures are compatible with current interpretations of World Trade Organisation Rules, this does not mean that these cheap imports have no effect on poultry producers in sub-Saharan Africa. European poultry exports thus have the potential to undermine African government and private sector efforts to develop local poultry industries as part of rural development, food security and job creation programmes. The promotion of agriculture and rural development has been a focal point in EU development co-operation activities in the sub-Saharan area. European trade policy coherence thus seems to be lacking – on the one hand, they claim to be in partnership with sub-Saharan countries in helping to grow local production while, on the other hand, they are "systematically eliminating tariff and non-tariff barriers to EU poultry meat exports". Where WTO rules and EU trade policies run counter to development aims, EU negotiators need to be reminded of the EU's legal obligation for policy coherence so that trade complements rather than decimates important African industries.

In 1Q 2015, final anti-dumping duties of between 3.86 % and 73.33 % were gazetted against imports from UK, Dutch and German suppliers. However, avian influenza outbreaks over the past few years have been more effective than tariffs in stemming imports from plants in these three countries. From July 2016, the industry pushed the International Trade Administration Commission (ITAC) for further safeguard measures against EU bone-in imports. In response to this application, ITAC issued a second essential facts letter which acknowledged that South Africa suffers the threat of serious disturbance from imports; that the main cause of the disturbance is EU imports; and that exceptional circumstances exist. The Minister of Trade and Industry imposed a safeguard tariff of 13.9 % to correct the imbalances in December 2016. This tariff was widely regarded as being too low to be effective and SAPA have worked with ITAC to have it raised towards the MFN (most favoured nation) tariff of 37 %. In a huge win for the local industry, the Minister imposed an EPA safeguard tariff of 35.3 % on bone-in portions from the EU. This temporary measure was in place for 4Q 2018 and 1Q 2019. The final safeguard tariff will remain in place for 3 years, at annual levels of 30 %, 25 % and 15 %; expiring in March 2022.

The "most favoured nation" (MFN) import tariffs agreed on in 2013 are currently up for review with the International Trade Administration Commission (ITAC). When tariffs were last revised in 2013, *ad valorem* duties were set as follows: whole birds 82 %; carcasses 31 %; offal 30 %; boneless portions 12 % and bone-in portions 37 %. SAPA argues that the tariffs set in 2013 have failed to provide more than 5 % average protection to the industry and have had no effect because a) they are too low; b) they do not apply to the EU because of the TDCA/EPA between South Africa and the EU; and c) dumping of mechanically deboned meat in the South African market causes far-reaching distortion of the whole value chain. SAPA has petitioned ITAC to raise the *ad valorem* tariff on bone-in and boneless chicken portions to 82 % (the maximum allowable under WTO rules). This application **only** applies to imports on bone-in and boneless

portions from certain nations; it does not apply to mechanically deboned meat, whole birds, fresh chicken, carcasses or offals; and, does not apply to imports from the EU. Scaremongers broadcasting a 30 % increase in the price of chicken (should the increased tariff be granted) ignore the fact that these targeted tariffs do not affect the price of local production, or the price of chicken imported on other tariff lines. The industry is hopeful that increased tariffs will be gazetted early in 2020.

The local industry has, for years, been placed under severe financial stress because of the effect of EU, Brazilian and US imports on local pricing. At the end of 2016 and beginning of 2017, several large, integrated poultry businesses announced downscaling of their operations and, with this, associated retrenchments. A national task team, consisting of government, industry and labour representatives, was established at the end of 2016 to address the dire situation that producers found themselves in. Government appealed to the poultry industry to do all it could to avoid retrenchments. Many emerging farmers have been unable to sustain their businesses in the face of difficult trading conditions, and this has had a negative effect on rural food security. Small producers are particularly vulnerable as they are unable to absorb market shocks and need an enabling environment in order to thrive. If the poultry industry were to collapse, it would have serious consequences for maize and soya growers; along with the entire food and grain value chains, which include fertiliser and seed suppliers, and storage and processing facilities.

Back in 2017, the Minister in the Department of Trade and Industry, Rob Davies, conceded that the industry was in distress. In February 2018, Cyril Ramaphosa was inaugurated as President of South Africa and gave assurances that government would deploy incentives and other support measures to protect the industry, save jobs and ensure food security. He promised that government would vigorously defend poultry farmers against dumping and unfair trade practices, within the rules of the World Trade Organization and our economic partnership agreements. On 6 November 2019, Minister of Agriculture, Land Reform and Rural Development, Thoko Didiza and current Minister of Trade and Industry, Ebrahim Patel, witnessed the signing of the long-awaited Poultry Master Plan. The Master Plan is a joint initiative between poultry producers, meat importers (AMIE), organised labour, and several government departments, including the Department of Trade and Industry (dti) and DALRRD. This joint vision of players from along the length of the poultry value-chain identifies five pillars which should support growth and transformation in the local industry - if properly implemented.

The five pillars are:

- To expand and improve local poultry production, which will simultaneously increase job creation in the maize and soya industries. Expansion will be coupled with skills development amongst the workforce and black economic empowerment;
- To drive domestic per capita consumption of poultry products, and promote affordability of local broiler products;
- To develop opportunities for producers to export poultry products, through assistance with the necessary food safety and veterinary certification processes;
- To introduce a stricter regulatory environment within the broiler production value chain (both local and imported meat); to improve product labelling and traceability

and reduce issues with illegal thawing of frozen product, classification, under-declaration of imported value, etc.

- To protect the local chicken industry from unfair trade practices through appropriate measures.

A number of targets have been set, with relevant deadlines, which include growing production by a minimum of 10 % within four years. The local industry and government agencies have agreed to invest R1.7 billion to help establish 50 further commercial-scale contract farmers as part of transformation and growth efforts. This increase in capacity would, in turn, stimulate demand for locally grown and manufactured poultry feed and require further investment in new poultry processing facilities. Major producers have committed an investment of R1.5 billion (over the next 4 years) into processing infrastructure. This investment will give rise to additional jobs and opportunities to export processed cooked product and breast meat to European and Middle Eastern markets.

More opportunities will be created for small-scale farmers to play a role in the sector and the level of black participation and ownership along the value chain will be increased. Worker share-ownership will be encouraged in the sector.

6.2 Turnover

The gross value of primary agricultural production from poultry meat (inclusive of all types of poultry) for the period 2019 was R46.97 billion, reflecting an annual decrease of 1.3 % (source: DALRRD).

Poultry production is the largest product sector in agriculture in South Africa, ahead of all other animal sectors (beef production (R35.5 billion), milk (R16.6 billion) and eggs (R10.3 billion)) and ahead of all field crop and horticultural sectors. The maize sector, for example, had a gross value of R28.1 billion and deciduous and citrus fruit were valued at R19.1 and R19.9 billion, respectively.

Poultry meat's share of the gross value of all agricultural production was 16.4 % (down from 16.5 % in 2018), and of all animal products 33.9 % (down from 34.0 % in 2018).

6.3 Production

A total of 1.027 billion broilers were produced for slaughter in 2019; 34.4 million (+ 3.5 %) more than in 2018 (Table 12).

Based on the number of day-old parent pullets placed to December 2019, the size of the breeder flock is expected to decrease by 1.2 % to 6.83 million during the first four months of 2020. The forecasting model predicts a potential production of broilers to June 2020 of 19.65 million slaughtered per week. These figures do not take exports into account, nor the possibility that some fertile eggs may not be incubated if the industry attempts to adjust to a situation of oversupply.

Table 12*: Summary of key results: broiler production*

Forecast period	Day-old parent pullets placed	Breeder hens	Broiler chicks placed	Broilers slaughtered (based on actual chicks)
	/year	average	/year	/year
2018	9 014 157	6 425 291	1 047 390 933	983 028 177
2019	9 455 263	6 723 673	1 079 093 675	1 017 386 438
Change	441 106	298 382	31 702 742	34 358 261
% change	4.9	4.6	+ 3.0	+ 3.5

6.4 Producer and retailer broiler prices

The weighted average producer price for broilers (NSV; less all discounts, rebates, advertising spent, secondary distribution, VAT, etc.) of R22.89/kg was 2.0 % higher in 2019 than in 2018 (R22.44/kg; Figure 20).

If the price is adjusted for CPI (meat; base = 2012) to estimate the annual producer price in *real terms*, then the average producer price in 2019 was up 1.7 % on 2018. This contrasts with 2018, in which the average producer price of chicken was lower than it was in the previous two years, when computed in *real terms*.

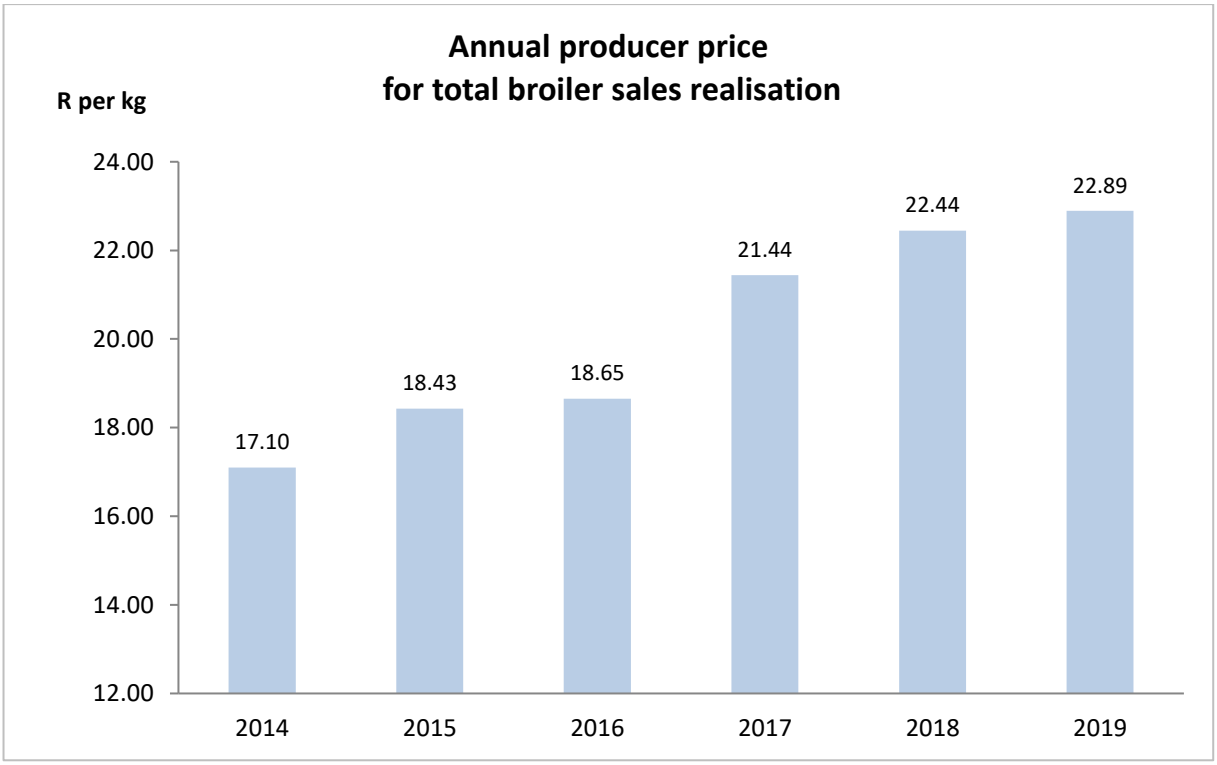


Figure 20. Annual producer prices for total broiler sales realisation (NSV; *source: SAPA)*

The average retail price for whole fresh chicken was R46.26 per kg in 2018 and for 2019 was R48.47 per kg (+ 4.8 %; Stats SA). In 2019, the average mark-up between producer and retail prices was 78.6 % for whole fresh chicken.

The average retail price for fresh chicken portions was R59.34 per kg in 2018 and R62.03 per kg in 2019 (+ 4.5 %; Stats SA). The mark-up from producer to retailer through 2018 was + 85.0 % and in 2019 was 90.2 %.

The average retail price for 2 kg IQF bags was R33.43 per kg (Stats SA) in 2018 and R32.94 in 2019 (- 1.5 %; Stats SA). The average mark-up on 2 kg IQF bags in 2019 was 50.9 %.

6.5 Feed usage and cost

The average broiler index feed price for 2018 was R5 618 per tonne; an increase of 9.5 % in comparison with 2018. This followed a year-on-year increase of 2.3 % in 2018. The broiler feed price index includes distribution, but excludes medication, additives and VAT. The movement in the index feed price is shown in Figure 21.

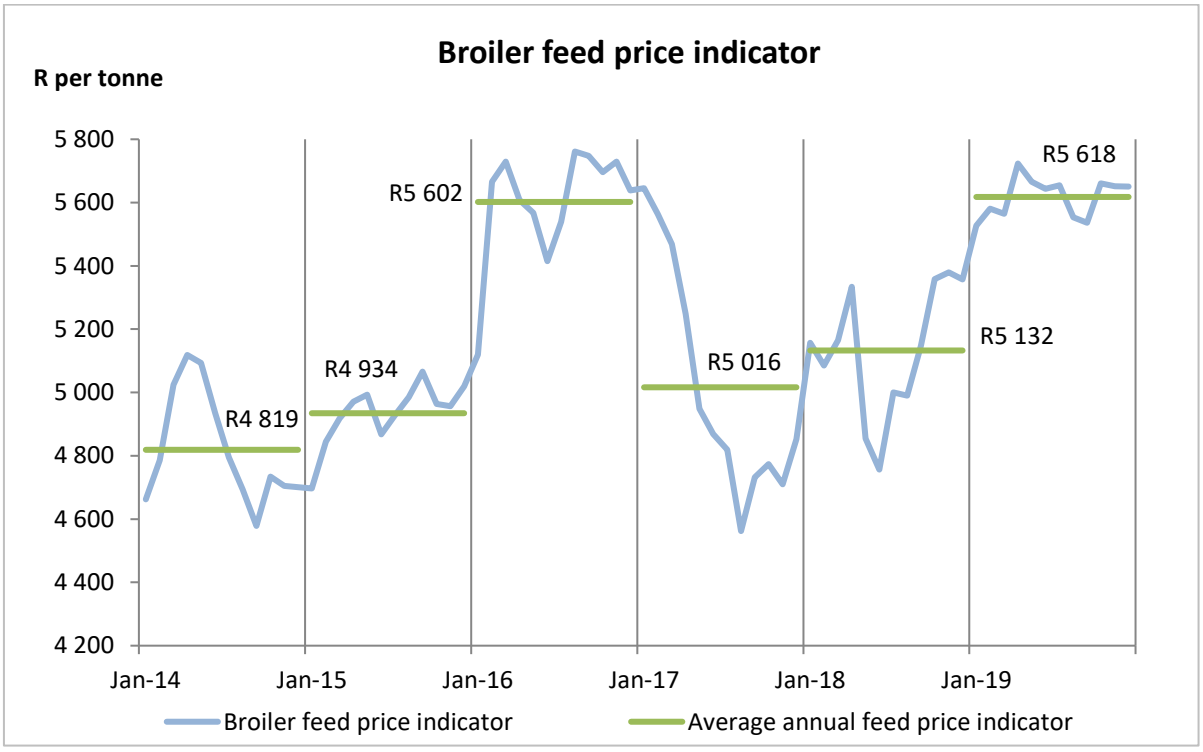


Figure 21. *Broiler feed price indicator (average across feed phases) from 2014*

The year-on-year percentage changes in broiler feed price and chicken price are shown in Figure 22. Through 2013, feed prices were lower than the year before and producers were able to maintain year-on-year increases in the broiler producer price even when annual feed prices moved back into positive territory (e.g. March to August 2014). From August 2014 to end July 2015, broiler producers enjoyed higher year-on-year percentage increases in the producer price than the year-on-year changes in the feed price.

With the drought biting, the situation deteriorated for broiler producers from August 2015, with annualised increases in feed prices outstripping increases in broiler revenues. Year-on-year percentage increases in broiler producer price moved into negative territory between March and July 2016 but returned to positive territory in August 2016 and remained there to the end of 2017; exceeding feed price increases from December 2016. Year-on-year increases in feed prices moved into negative territory from February 2017 as the effects of the drought eased; and remained there until the end of 1Q 2018. The year 2017 was thus a good one for broiler producers, with year-on-year changes in producer prices exceeding + 15 % for several months.

Year on year increases in feed prices returned to positive territory in 2Q 2018 and have remained there through to the end of 4Q 2019; exceeding + 5 % every month from August 2018 and exceeding + 10 % in the periods October, November and December 2018, and May to September 2019. At the same time, increases in broiler prices dropped back below the + 5 % level in 2Q, 3Q and 4Q 2018 and moved into negative territory (average – 3.2 %) in 1Q 2019. This situation will erode profits.

Since May 2019, year-on-year increases in broiler prices have moved back into positive territory, averaging + 4.3 % against an average year-on-year increase in feed price of 10.4 % for the same eight months. In December 2019, the year-on-year increase in the broiler price (+ 7.5 %) was higher than the year-on-year increase in feed prices (+ 5.5 %) for the first time since June 2018.

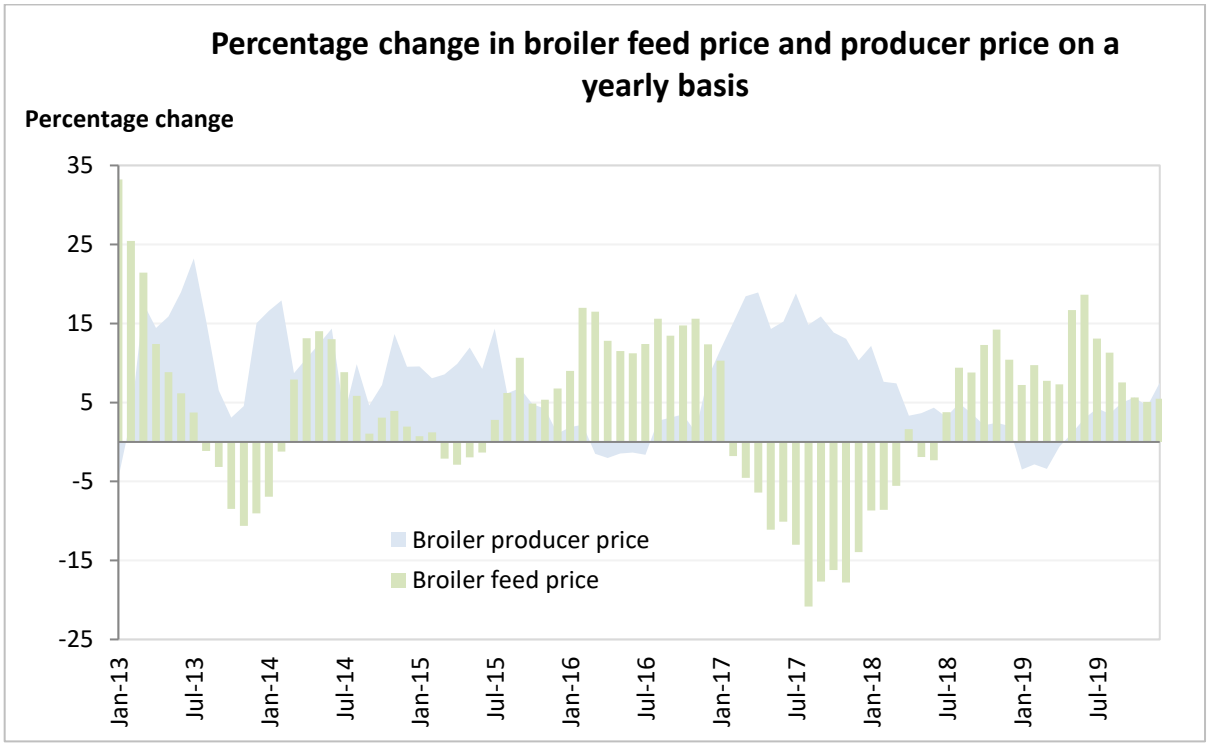


Figure 22. *Year-on-year percentage change in broiler feed price and producer price*

In 2019, approximately 3.56 m tonnes of feed were used by the broiler industry. Approximately 3.044 million tonnes of feed were used to grow broilers while the remaining 515 774 tonnes were

used in the broiler breeder industry. The feed usage for broiler breeders and broilers is summarised in Table 13.

Table 13: *Feed usage for broiler breeders and broilers in 2019 (tonnes)*

	Broiler parents		Total breeding stock		Broiler production		Broiler industry	
	rearing per annum	laying per annum	per annum	per week	per annum	per week	per annum	per week
2018	92 732	398 728	491 459	9 425	2 943 071	56 442	3 434 530	65 868
2019	98 545	417 229	515 774	9 892	3 044 364	58 378	3 560 138	68 277
Change	5 814	18 501	24 314	466	101 293	1 936	125 607	2 409
%	+ 6.3	+ 4.6	+ 4.9	+ 4.9	+ 3.4	+ 3.4	+ 3.7	+ 3.7

According to the Animal Feed Manufacturers Association (AFMA), national feed sales for broilers from 1 January to 31 December 2019 amounted to 2 676 002 tonnes (+ 2.8 %) and, for breeders, 536 631 tonnes (+ 3.7 %). These figures exclude non-members of AFMA.

6.6 Feed usage and cost

Poultry consumption

According to DALRRD estimates for 2019, total production of poultry meat (including turkey, ducks, geese and guinea fowl) was 1.808 million tonnes whereas consumption (including backyard consumption) amounted to 2.328 million tonnes (+ 1.8 %). The per capita consumption of poultry meat for 2019 was 39.30 kg per annum, down 0.1 % from 39.32 in 2018 (Figure 23).

DALRRD based its calculations on its own estimates of production data. DALRRD also used trade statistics from a source other than the South African Revenue Service (SARS). DALRRD's estimate of poultry meat consumption is 1.2 % higher than SAPA's estimate.

According to SAPA's calculations, poultry consumption amounted to 2.300 million tonnes. The per capita consumption of poultry meat for 2019 was 39.13 kg, compared to 39.17 kg (- 0.1 %) in 2018. 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 annual per capita consumption of poultry around the world, according to OECD-FAO data for 2019, is shown in Figure 24.

Note, these are *forecast* figures for consumption. The OECD-FAO data for 2017 is "provisional" and can be found on the website for the OECD-FAO Agricultural Outlook 2017 - 2026. The South African per capita value in Figure 24 is sourced from DALRRD.

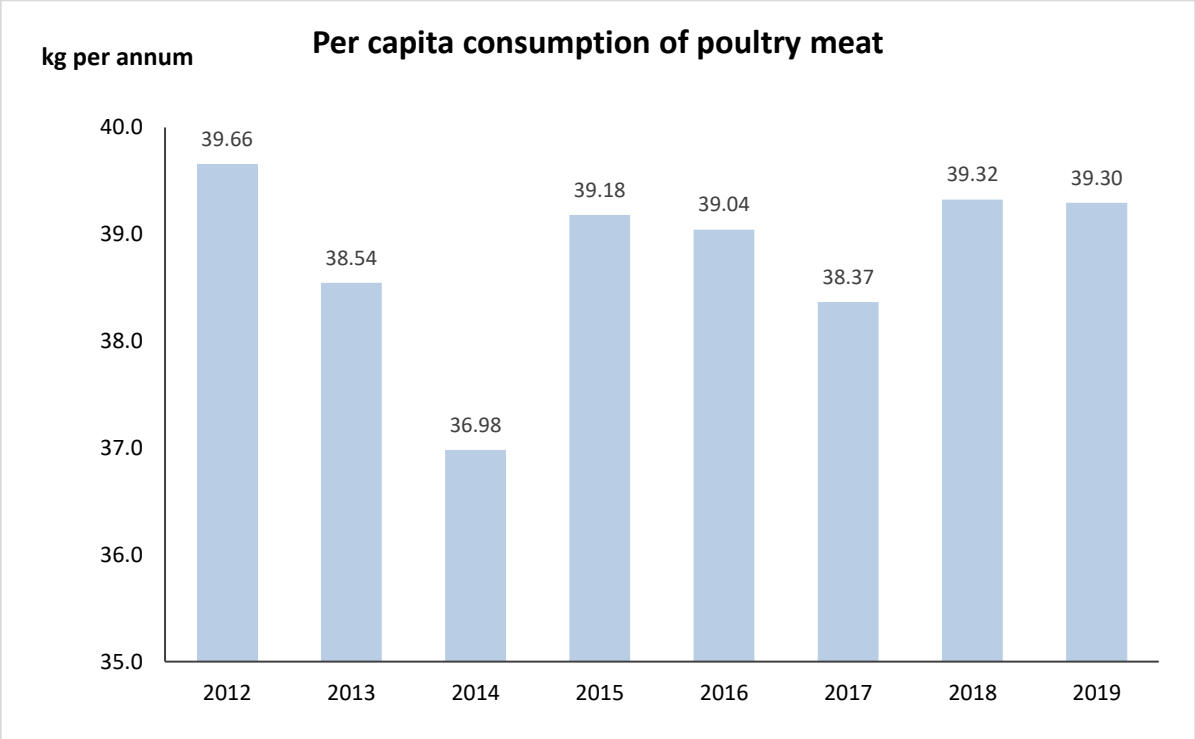


Figure 23. *Per capita consumption of poultry meat in South Africa from 2012 (DALRRD)*

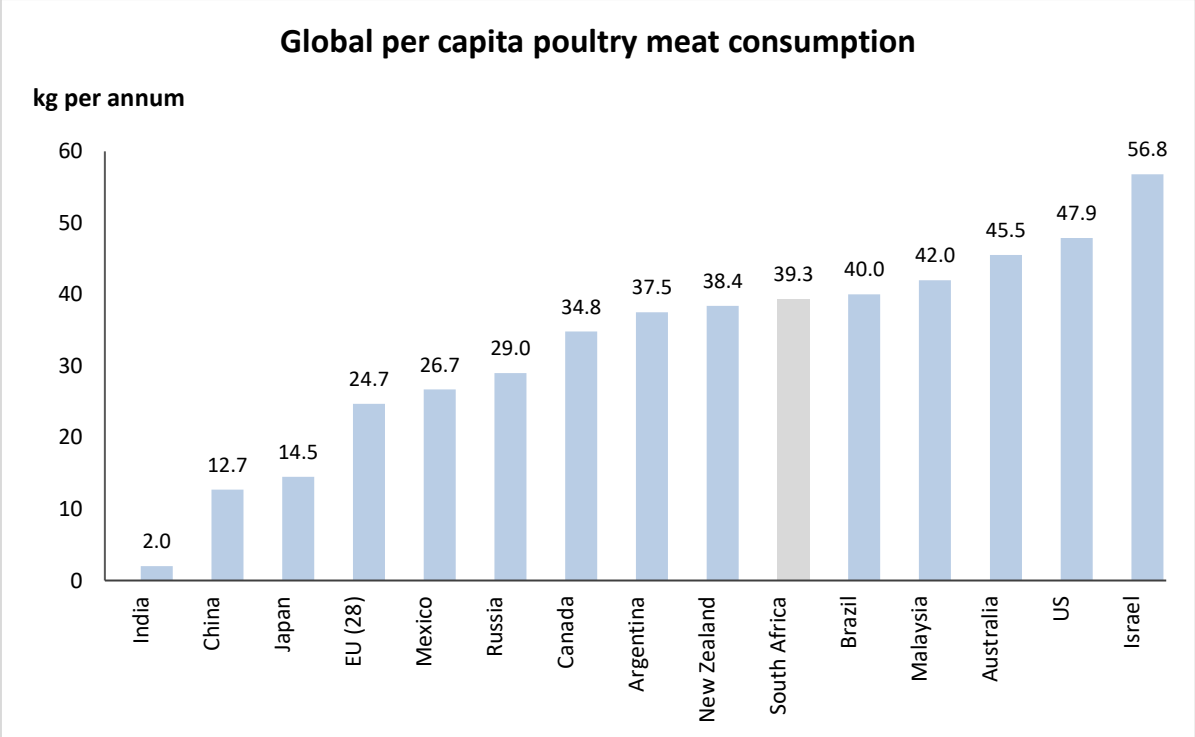


Figure 24. *Approximate per capita consumption (kg) of poultry meat worldwide (OECD-FAO; DALRRD)*

Chicken consumption

Chicken production, including subsistence farming and depleted breeders in the broiler and egg industries, was 1.813 million tonnes (99.96 % of total poultry production). Consumption of chicken meat amounted to 2.274 million tonnes in 2019. The per capita consumption of chicken meat for 2019 was 38.70 kg per annum, down 0.1 % from 38.73 kg in 2018 (source: SAPA).

6.7 Trade

South Africa is among the most unprotected markets in the world. Exporters such as Brazil and the EU take advantage of this to dump substantial quantities of cheap chicken here. In contrast, Nigeria, Kenya and Swaziland do not allow imports at all; Botswana and Mozambique issue very few import permits and Namibia restricts chicken imports through a quota system. Worldwide, countries impose very large tariffs to protect their industries while others use sanitary regulations to stop imports into their home markets. For example, the EU, a massive exporter of chicken to South Africa, imposes *ad valorem* tariffs of between 10 and 26 % on broiler imports (https://ahdb.org.uk/eu-and-uk-import-tariff-rates-for-poultry-meat-and-derived-products) but, even more importantly, prescribes strict sanitary, phytosanitary and welfare conditions that must be met in order for a country to export to EU members.

https://ec.europa.eu/food/safety/international_affairs/trade/poultry_en.

Canada applies a 238 % tariff on all whole chickens imported over and above an agreed annual quota (within the quota, the tariff is 5.4 %).

In South Africa, the general tariff on bone-in portions – the bulk of imports – is only 37 %, with no tariff at all on mechanically deboned meat (MDM), which is used in sausages and polonies. In 2015 and 2016, 81 % of imported bone-in portions came from the EU, duty-free, and therefore there was, in effect, almost no duty raised on bone-in portions. In 2018, 17.7 % of imported bone-in portions came from the EU (because of lingering AI-related trade bans against EU nations) but this increased to 39 % in 2019. Brazil landed 20.5 % of the bone-in portions imported in 2019 (from, 46.1 % in 2018) and 32.9 % came from the US (28.1 % in 2018). Duties would have been payable on imports from the Americas.

Annual broiler imports

According to the audited figures of SARS (verified), the annual broiler imports for 2019 totalled 511 317 tonnes; a 5.2 % decrease on 2018 levels (- 27 981 t). Nevertheless, imports in 2019 were 5.7 % higher than the 5-year average (2014 – 2018).

On an FOB basis, the value of imports for 2019 decreased by R457.96 million (- 7.6 %) from the 2018 value, to R5.58 billion. Broiler imports represent 94.8 % of the total poultry products imported (539 567 t; includes turkey, ducks, geese and guinea fowl). Turkey imports in 2019 amounted to 27 772 t (5.1 % of total poultry imports).

Figure 25 presents annual imports of broiler products since 2014, compared with local South African broiler production. Imports as a proportion of total of local meat production are shown on the chart (red font).

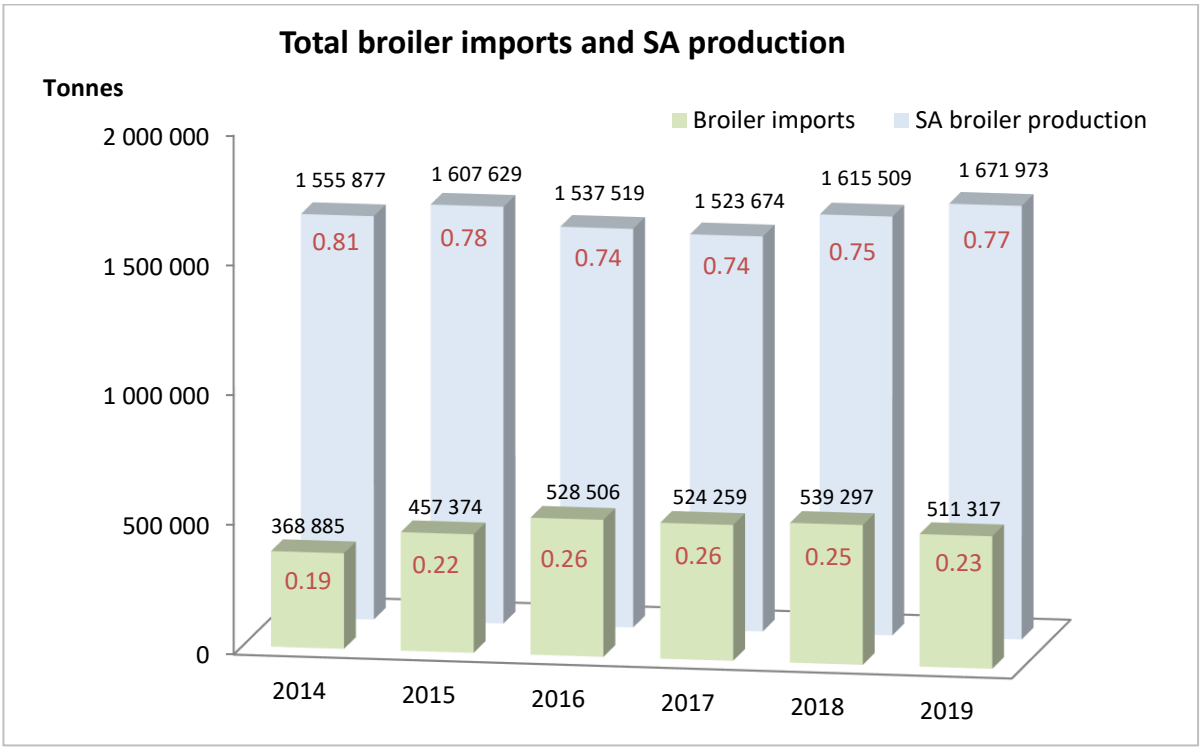


Figure 25. *Total annual chicken imports since 2014 (tonnes) against local production*

Frozen broiler meat imports

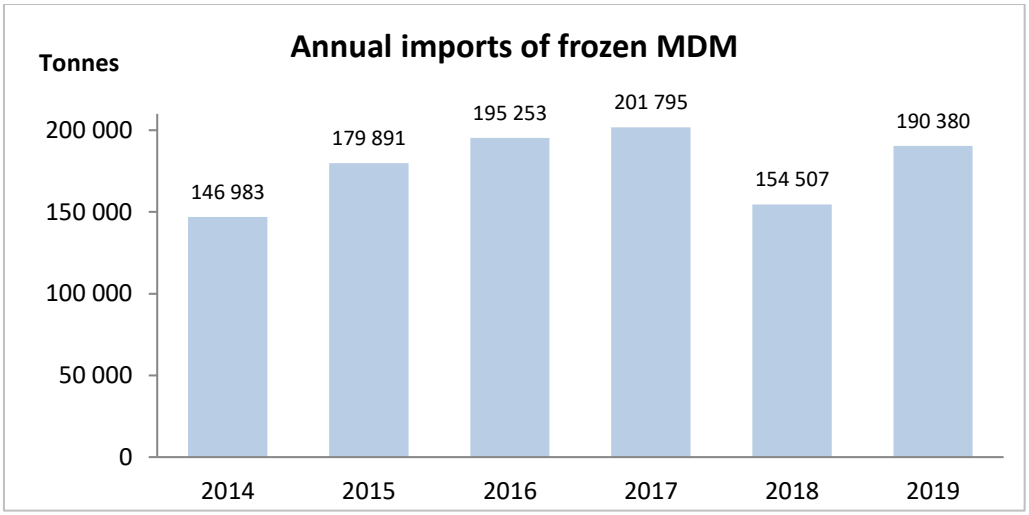
Of the total broiler meat imported through 2019, 99.9 % was frozen (510 805 t). Frozen broiler meat imports decreased by 5.1 % in 2019 from levels imported during 2018 (538 434 t). Frozen broiler imports contributed 22.5 % of broiler consumption in South Africa in 2019; from 24.1 % in 2018. If frozen mechanically deboned meat (MDM) imports are excluded, then frozen broiler imports contributed 14.1 % of broiler consumption; from 17.2 % in 2018.

Mechanically deboned meat (MDM) contributed 37.3 % to frozen broiler meat imports (190 380 t), while bone-in broiler portion imports contributed 44.0 % (224 999 t); whole broilers 3.2 %; carcasses 1.4 %; boneless portions 4.2 %; and offal 9.9 %.

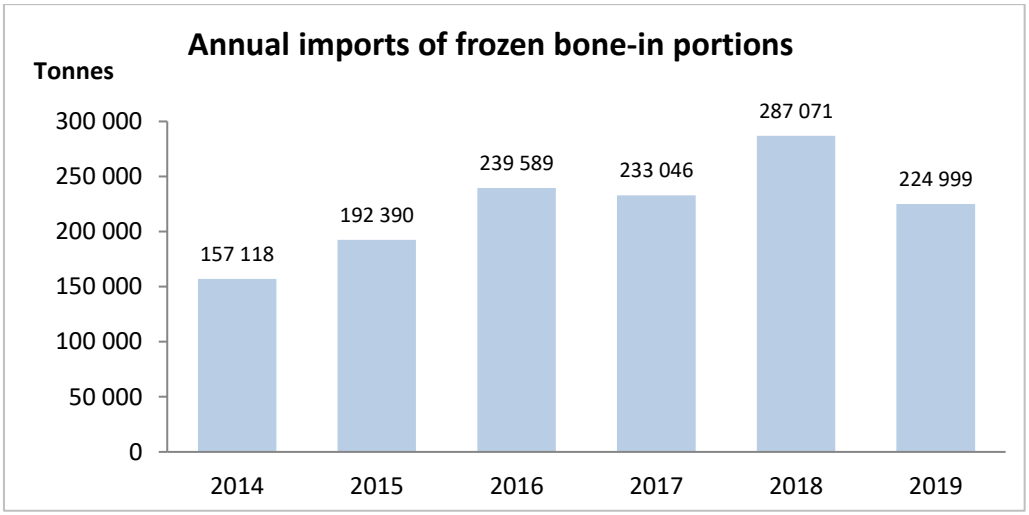
Leaving MDM out of import totals ignores the effect that 190 380 tonnes of chicken entering the market at R6.53/kg has on overall pricing. The average FOB price of MDM increased by 7.3 % in 2019, after a 10.3 % decrease in price in 2018.

Annual imports of frozen mechanically deboned meat (MDM), frozen whole chickens and frozen bone-in portions are given in Figures 26 (a) to 26 (c); illustrating an increase in the importation of MDM; a welcome decrease in frozen bone-in portions and a four-year increase in the importation of whole frozen chickens.

(a)



(b)



(c)

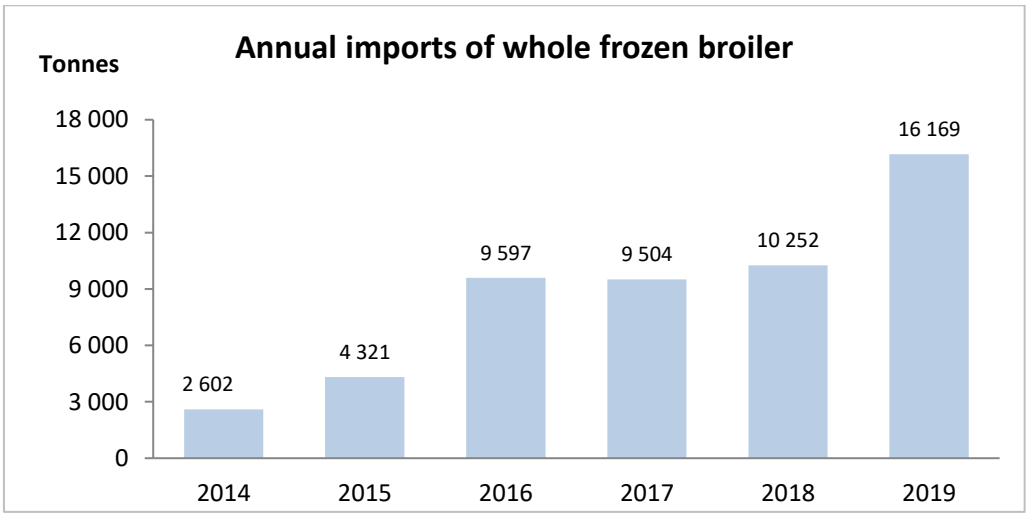


Figure 26. *Annual imports of mechanically deboned meat (MDM), frozen bone-in portions and whole frozen chickens*

Origin of imports

The origin of imports has changed over the past few years, with a significant increase in tonnage from the European Union, which enjoys a free trade agreement with South Africa. Brazil remained the main country of origin in 2019; being the main source of MDM imports and because avian influenza-related trade bans were not lifted against several EU countries this year. Brazil accounted for 262 618 tonnes or 51.4 %, of total broiler imports into the country in 2019 (down from 62.7 % in 2018); still up 20.4 % on Brazilian imports in 2016, before the European HPAI events.

The US was the second largest exporter of broiler products into the country in 2019, with 15.4 % or 78 794 t. Argentina increased broiler exports to South Africa by 14 % in 2019 (37 939 t; 7.4 % of total); while Thai exports decreased by 0.9 % to 8 547 t (1.7 % of total). Canadian broiler imports dropped 19.2 % in 2019 (1 667 t; 0.3 % of total).

Of the EU exporters, only Poland, Ireland, Denmark and Spain exported significant quantities of broiler products to South Africa in 2019: 48 679 t (9.5 %), 30 235 t (5.9 %), 23 325 t (4.6 %) and 17 623 t (3.4 %), respectively.

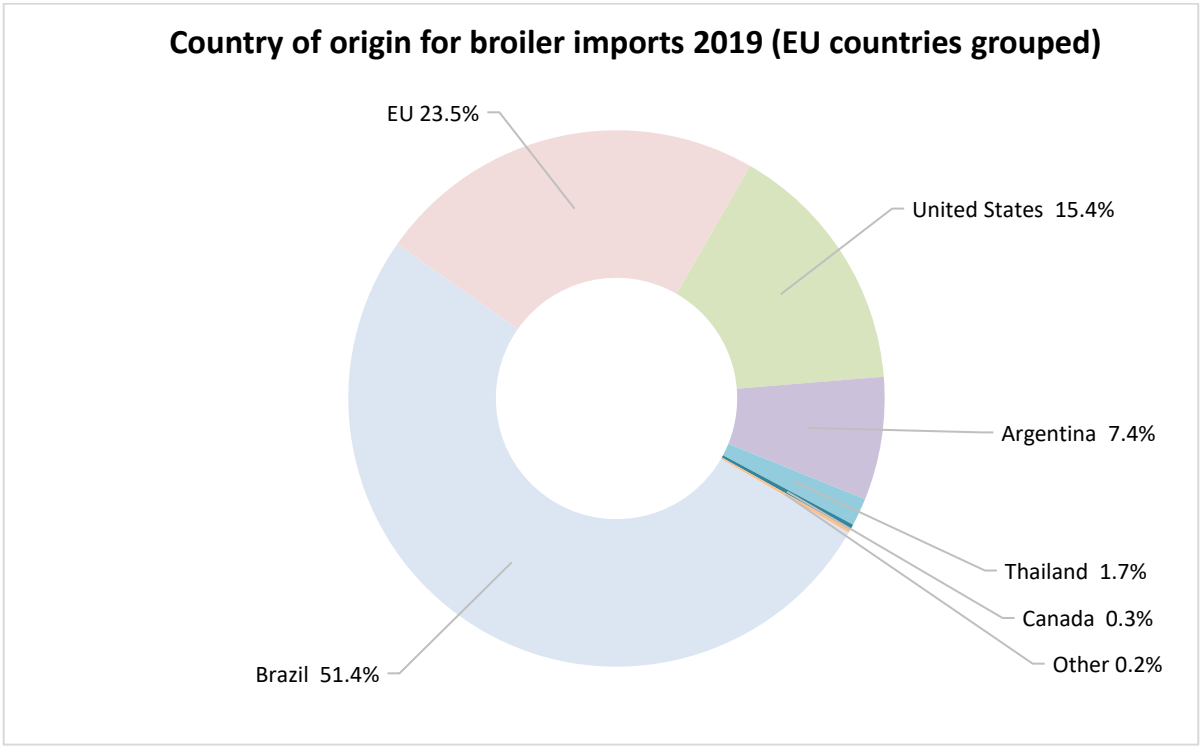


Figure 27. *Broiler imports into South Africa in 2019: EU countries combined*

If the EU countries are considered as a single entity (Figure 27), 23.5 % of broiler imports entered South Africa through the EU in 2019, compared to 12.9 % in 2018 and 51.1 % back in 2014 (before the European HPAI events). In tonnage terms, a total of 120 301 t of broiler meat was imported from the EU in 2019, compared to only 69 529 t last year; 188 474 in 2014; and only 4 139 t in 2009. The drop in EU imports in 2017 and 2018 reflects the impact of the trade bans on EU countries affected by avian influenza.

South Africa was the single largest export destination for EU poultry meat exports in 2016 but, in 2017 through 2019, the EU exported more to the Philippines, Ghana, the Ukraine, the Democratic Republic of Congo and Hong Kong. As the UK leaves the EU, it is expected that the UK will become the main destination for EU exports.

The EU has been, over a number of years, the major supplier of bone-in portion imports into South Africa (Figure 28) but, through 2017 and 2018, outbreaks of HPAI and lingering trade bans eroded EU market share, from 81.1 % in 2016 to just 17.7 % in 2018. The EU contribution to bone-in imports increased to 39.0 % in 2019. Poland (16.8 %), Denmark (9.0 %), Ireland (8.6 %) and Spain (4.6 %) remained the only EU exporters sending significant quantities of frozen bone-in portions to our shores. Brazil increased its market share of bone-in portions from 7.9 % in 2016 to 46.1 % in 2018. Similarly, the US increased its share from 9.2 % in 2016 to 28.1 % in 2018. The Argentinians claimed 7.1 % of the bone-in market in 2018, against 1.2 % in 2016. In 2019, these three importers have accounted for 20.4 % (46 027 t), 32.9 % (73 973 t) and 6.9 % (15 533 t) of bone-in imports, respectively.

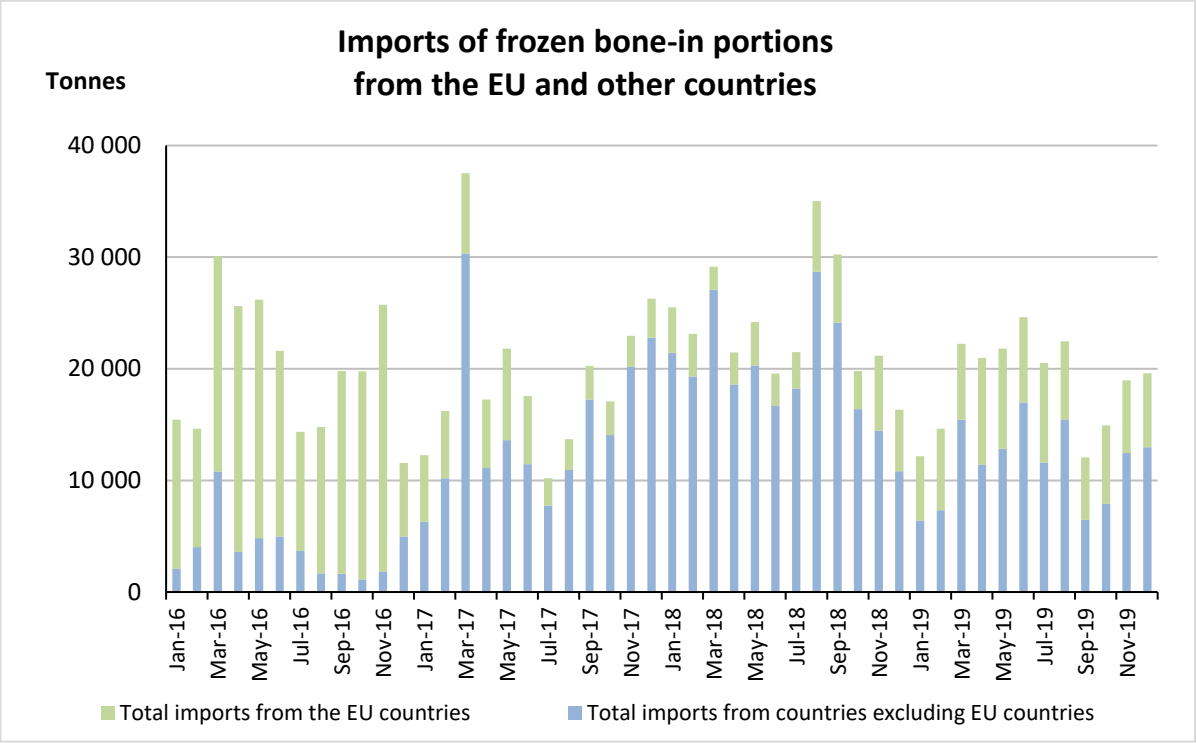


Figure 28. *Imports of frozen bone-in portions from the EU (presented as a single entity) in comparison with the rest of the countries combined*

Brazil remains the biggest exporter of mechanically deboned broiler meat to South Africa; accounting for 88.3 % of MDM imports in 2019 (168 078 tonnes).

The main product imported from the EU in 2019 was frozen bone-in portions, accounting for 70.5 % of total poultry imports from the Union and 73.0 % of EU broiler imports. This was followed by whole frozen chicken, mechanically deboned meat (MDM) and frozen carcasses at 11.5 %, 3.3 % and 0.9 %, respectively (as proportion of broiler imports). The main product imported from

Brazil was mechanically deboned meat (62.5 % of Brazilian poultry imports; 63.9 % of broiler imports); down from levels close to 78 % in 2016. Bone-in chicken portions made up 17.5 % of Brazilian broiler imports in 2019; along with offal at 12.2 % and boneless chicken portions at 5.1 %. Frozen bone-in portions made up 82.6 % of total US poultry imports in 2018 (93.9 % of broiler imports).

Value of imports

The value of broiler imports into South Africa amounted to R5.575 billion at the free on board (FOB) level in 2019; a 7.6 % increase over 2018. Frozen bone-in portions were imported at an FOB value of R3.055 billion (54.8 % of total broiler value) and frozen MDM at R1.242 billion (22.3 %). The average FOB value of frozen bone-in portions was R13.58/kg; and MDM was imported at R6.53/kg.

The value of total poultry imports into South Africa, including broilers, turkeys, geese, ducks and guinea fowl totalled R6.137 billion, a 5.9 % decrease in comparison with the value of total poultry imports for 2018.

Poultry exports

A total of 53 641 tonnes of poultry products (chicken, turkey, ducks, geese and guinea fowl) were exported at an FOB value of R 1.247 billion during 2019. This was an increase of 4.4 % on 2018 tonnages.

Broiler exports accounted for 93.6 % of total poultry exports in 2019 (50 229 t), and 91.5 % of the rand value (FOB; R1.141 billion) of total poultry exports. Broiler exports increased by 2.8 % in 2019. Turkey exports totalled 1 497 t in 2019; geese exports 628 t; duck exports 43 t; guinea fowl 24 t and mixed product (ducks, geese or guinea fowl; not specified) 1 220 t.

Of the total 50 229 t of poultry exports, 31 330 t were frozen products (including 9 362 t of frozen chicken bone-in portions; 4 167 t MDM and 6 626 t of whole frozen chicken); and 18 843 t were fresh poultry products (including 11 397 t of fresh chicken cuts and offal and 7 276 whole fresh chickens). There were also 3 469 t of products which might either be fresh or frozen (e.g. pâtés, sausages and value-added products).

The main destination countries for *broiler* exports were Lesotho at 23 276 t (46.3 %), Mozambique at 14 095 t (28.1 %), Namibia at 5 316 t (10.6 %), Botswana at 2 325 t (4.6 %), Swaziland at 1 835 t (3.7 %) and the UAE at 2 104 t (4.2 %) of the 50 229 total tonnes of broiler meat exported.

6.8 Provincial distribution of broiler farms

In a recent Avian Influenza (AI) surveillance survey, the location of broiler farms was recorded. The survey covers broilers, broiler breeders and breeders in rearing.

Table 14 gives the provincial distribution of broiler farms (breeder and rearing).

A total of 596 farms reported in the AI survey, of which 131 were broiler breeder farms and 465 were broiler rearing farms.

Table 14: *Provincial distribution of broiler chickens in South Africa*

Province	Broiler birds	% of total broiler birds
Eastern Cape	7 947 299	6.9 %
Free State	13 763 160	11.9 %
Gauteng	11 399 653	9.9 %
KwaZulu-Natal	7 466 034	6.5 %
Limpopo	3 645 263	3.2 %
Mpumalanga	24 053 556	20.9 %
North West	25 183 381	21.9 %
N & W Cape	21 746 385	18.9 %
GRAND TOTAL	**115 204 731**	100%

6.9 Performance efficiency

Feed conversion ratio (FCR) and performance efficiency factor (PEF) values depend on the management of each enterprise. However, top South African broiler farms are capable of achieving FCR figures below 1.5 and PEF figures approaching 375. Average slaughter age is now 32 – 33 days at a weight of 1.8 – 1.85 kg.

6.10 Challenges and prospects

Meat importers have been at pains to convince the public that the local poultry industry does not have the capacity or efficiency to meet South Africa's rising demand for chicken products, and that 30 % of the country's requirement has to be met by imports. Local producers know this to be untrue. Years of predatory competition from cheap poultry imports (often priced below the cost of production) have seen the local industry shed jobs and mothball production capacity. Only large, integrated poultry operations can achieve the economies of scale needed to survive the challenge of dumped imports and so investment in the local industry has stalled. Production has, through necessity, become concentrated in a few big producers, reducing opportunities for transformation, job creation and industry expansion. Organisations arguing against a higher level of tariff protection fail to consider the wider implications of replacing imported chicken with local production: including rural employment; improved environmental sustainability; long-term food security (chicken and feed ingredients); better food quality and safety; and, of course, a lower trade deficit.

The poultry sector plays a key role in the South African agricultural economy. It is the second largest market for South African maize farmers and provides a high quality, affordable source of protein to millions of households. Large producers have some scope to adapt to difficult market conditions by changing their business models, investing in infrastructure, and improving production efficiencies. Smaller broiler producers can provide significant employment

opportunities and food security in rural communities but find it harder to withstand the combined challenges of high import volumes and predatory pricing of imported product. If the industry is to be transformed, these entrepreneurs need to be supported. Over the past two years, as retrenchments escalated, Government and the poultry industry have been seeking ways to substitute "unfair" broiler imports from the Americas and Europe with local product and, in the process, return "outsourced" agricultural jobs to South Africa. In this regard, the Poultry Master Plan (described above, Chapter 6.1) is a firm step in the right direction. Government's commitment to growing the local industry will be tested in early 2020 by the size of any increase applied by the Minister to the *ad valorem* tariff on bone-in and boneless portions.

The EU has requested formal consultations with the Southern African Customs Union (SACU) on poultry trade; as they believe the extra duties imposed on bone-in portions (under the three-year EPA safeguard tariff) do not conform with the provisions of the EPA. Should common ground still not be reached, the EU would have the right to put the issue to an arbitration panel. Dated 14 June 2019, the notice ends rather disingenuously with the EU claiming that the duties, imposed from September 2018, only had the effect of allowing Brazil and US into the market. In fact, EU bone-in imports have been increasing steadily since July 2018, as AI-related trade bans (the real reason for Brazil's increased trade) lifted (+ 195 % July 2018 to April 2019). South Africa has been negotiating a separate trade deal with the UK, as it prepares to exit the European Union. It was agreed that the EU EPA safeguard tariff would continue to apply to UK bone-in/boneless imports until March 2022, unless set aside by processes of review or appeal.

Poultry producers have been urged to look for export opportunities for white breast meat because a key finding of the government-led task team was that South Africa needs to become a significant exporter of poultry products. Despite a promising increase in poultry exports of 162 % in 2014, exports only grew by 9.2 % in 2015 and 2.2 % in 2016 – and from a low base. In 2017 and 2018, exports decreased by 15.1 % and 18.3 %, respectively, because of HPAI-related trade restrictions in place from 2H 2017. In 2019, exports recovered by just 2.8 %. Export-led growth is the surest way for consistent industry expansion in excess of population growth levels, and the opening up of new export markets for South African meat and egg products should be an industry and government priority over the next few years. However, achieving a level playing field in international trade is difficult: South Africa is a first world country in World Trade Organisation terms and therefore has open borders. The EU and SADC producers are able to export to South Africa at preferential tariff rates. A legislative review by BFAP suggests that the broiler industry is not in a favourable position regarding unilateral and bilateral commitments to imports and exports. Currently the bulk of South African exports is destined for SADC neighbours, but even some possible neighbouring markets are not accessible to South African producers for non-tariff reasons (BFAP). Europe and the USA block South African imports on the basis of non-tariff barriers, such as the presence of Newcastle disease, and AI in ostriches. Issues of bird welfare, meat inspection, medication residue monitoring, environmental protection, food safety and animal health will need to be understood by the industry and responded to, in collaboration with DALRRD, in order to allow competition in international markets. Data from BFAP suggest that South Africa will not be able to compete with leading exporters such as Brazil and the US unless favourable transportation rates to the export destinations can be realised; or it obtains preferential access into certain markets.

SAPA has established an export forum to help producers access niche markets for breast meat, but challenges remain at government level. These include DALRRD's failure to run national residue and antibiotic monitoring programmes and the lack, until last year, of an independent meat inspection scheme. BFAP believes that potential markets should nevertheless be identified, and the creation of protocols to access these markets prioritised. Many Eastern markets, including the UAE, Saudi Arabia, Hong Kong and Japan, are located favourably for South Africa in terms of transport costs but the demand structure in these countries is similar to South Africa. The UK and Europe (white, breast meat) and Saudi Arabia (whole birds) present export options for South African producers if phytosanitary, sanitary, traceability and welfare barriers can be overcome.

The industry continues to hope that the Department of Trade and Industry will move forward with the designation of poultry products in terms of the Preferential Procurement Policy Framework Act. This would have the effect that state procurement of poultry products would have to be local, and preferentially sourced from historically disadvantaged (HDI) producers. While poultry products have not yet been added to the existing list of designated products and sectors, Section 8.4 of the revised regulations (2017) allows organs of the state to "self-designate" in tenders, provided they do so in consultation with National Treasury and the DTI. Under the Poultry Master Plan, the Department of Trade and Industry is to assess the nature and extent of state procurement of poultry products by the end of Q2 2020 and make a decision on designation by Q3 2020.

Government's commitment to grow the local poultry industry might be called into question if Astral's woes at its Standerton plant in the Lekwa municipality in Mpumalanga are considered. An ongoing paralysis in maintenance and upgrading of the municipal water supply system slashed R85 million rand from the company's books in the latest financial year, as it was forced to find costly solutions to keep the processing plant operating whenever the water supply failed. In December, Astral won a court interdict to prevent Eskom turning off the power to the same plant, as a result of the Lekwa Municipality's unpaid debt to the state-owned enterprise. Astral successfully argued that they were up to date with their payments for electricity and that it was irrational for Eskom to terminate the electricity supply to the manufacturing sector when the issue of non-payment lies between two government entities.

Further away from home, a new horizon issue looms for meat producers the world over, as convincing alternatives to animal proteins become mainstream. Consumers are being urged to adopt Meatless Mondays for their own health and environmental reasons and abstaining from meat is becoming ever easier as plant-based alternatives improve in taste and texture. Ironically, several big meat processors are diversifying into manufacturing plant-based protein products. These include Brazilian giant JBS and US poultry operation, Perdue. Tyson Foods and Nestlé are also set to release plant-based protein products soon, and Cargill has invested in a laboratory-cultured meat start-up. Quick-serve restaurant groups have begun exploring plant-based offerings. In August 2019, KFC introduced chicken-free nuggets and boneless wings (made by Beyond Meat) in one of their Atlanta restaurants. Burger King also rolled out a meatless Impossible Whopper burger in August and McDonalds are to test a plant-based burger in Canadian stores. Chick-Fil-A are offering a wider range of vegetarian and vegan menu choices. In New York, Beyond Meat went public on 2 May 2019 at $25 a share and touched $195

a share by October. The company's main competitor, Impossible, cannot keep up with demand for their soybean-based vegan burger.

More than 5 000 US restaurants, including some fast-food chains, are selling the Impossible Burger, and Beyond Meat burgers are being sold in grocery stores across the States. The Beyond burger was launched in Johannesburg in October 2018 and is available at limited outlets and restaurant chains such as Spur and Woolworth's Cafés. Beyond Meat also manufacture plant-based sausages and are about to launch ground "beef" and poultry meat alternatives. Taste and texture-wise, the products have been well-received by consumers, although meat-eaters are still able to tell the difference between the plant-based versions and a genuine beef patty. Interestingly, much of the uptick in plant-based sales in quick-serve restaurants (QSRs) is attributed to meat-eaters seeking to increase the amount of plant-based food in their diets (flexitarians), rather than to an increase in vegetarianism or veganism. As more and more alternative products become available, poultry producers will need to work hard to have their product seen as sustainable, healthy and free of welfare issues.

As with the cage-free revolution in the egg industry, broiler welfare initiatives are rapidly becoming a horizon issue for South African farmers. Rabobank's Nan-Dirk Mulder, speaking at the first Feed Strategy Conference (host: WATT Global Media), has suggested that social concerns offer opportunities for producers seeking to differentiate themselves from competitors. These social concerns include environmental, food safety, animal welfare, sustainability and consumer health issues. In this vein, the UK supermarket chain Waitrose has recently joined Marks and Spencer's, Nestlé and Knorr in signing up for the Better Chicken Commitment (run by Compassion in World Farming (CWF)). The RSPCA in the UK is now putting pressure on other supermarket giants to follow suit. By 2026, Nestle will have transitioned to a higher code of welfare for all of the broilers used in food production in Europe. All Nestle's suppliers to brands Maggi, Herta, Buitoni and Wagner will have to implement the new policy in stages, including abiding by EU welfare regulations, regardless of country of origin. Other signatories include Burger King, KFC, Subway and Kraft-Heinz. Nestlé have also signed up to the "European Ask on Broiler Welfare", joining Unilever's Knorr and Marks and Spencer. The European Ask is a unified front of welfare organisations (including CWF), which is pushing producers to embrace prescribed minimum welfare standards. These standards include a maximum stocking density of 30 kg/m^2; enriched environments; humane atmospheric or electrical stunning methods (without immersion); third party auditing; and the use of breeds with higher welfare outcomes (https://welfarecommitments.com/europeletter/). Over 90 % of UK broiler production is assured by the Red Tractor scheme. Red Tractor standards on welfare, antibiotic use, environmental protection, food safety and traceability speak to consumers' concerns about how their food is produced (https://www.redtractor.org.uk/). South African producers can expect fast food chains (with international footprints) to come under increasing pressure to sign up to stricter welfare codes within the next few years.

DALRRD regulates the safety and quality of agricultural products through several Acts, including the Agricultural Product Standards Act (119 of 1990) and the Meat Safety Act (40 of 2000). Historically, authorised inspectors of the Directorate Inspection Services of the Department of Agriculture, Land Reform and Land Development were responsible for carrying out inspections. Due to personnel and other constraints at DALRRD, enforcement of the regulations has been

inadequate. The Agricultural Products Act allows for the appointment of assignees (by the Minister) to do work on behalf of DALRRD. Assignees may be any person, body, institution, association or board who are subject matter experts with respect to the product concerned. The Act regulates the sale of poultry meat, in terms of classification, grading, quality, packaging and labelling. The purpose of the Act is to protect consumers of meat and other products (local sales and exports) and to facilitate trade in agricultural products. The APS act allows an assignee to charge fees for services rendered, albeit on a non-profit basis. In May 2017, the Department gazetted an inspection fee of 0.008 c per carcass, valid from 1 June 2017. The Agency for Food Safety has been appointed as the designated assignee to provide inspection services to the poultry industry. The assignee will be operational throughout all selling and inspection points, such as ports of entry, pack houses, processing facilities, distribution centres, wholesalers, retail outlets and fresh produce markets. The inspection process involves sampling products using prescribed methods. Samples are taken at the discretion of the assignee, who is guided by regulations. The assignee must prevent redundancy of inspection (that is, inspections of the same product at different stages of the supply chain). In theory, the Act should prevent poor quality products from being imported into South Africa as locally produced, exported and imported products are all subject to the same regulation.

https://www.saolive.co.za/wp-content/uploads/2017/10/New-Assignees-under-the-APS-Act-29-Aug-2017.pdf

In July 2017, the Minister of Agriculture gazetted the establishment of an independent meat inspection scheme which falls under the Meat Safety Act; and invited applications from prospective assignees to provide inspection services on behalf of the Department. Abattoirs are expected to procure services from the list of assignees published by DALRRD; effective 1 November 2017. Besides abattoirs, the Meat Safety Act ensures that there is provision of an independent meat inspection service at all other facilities under the authority of the Act (including export and import-approved cutting plants, abattoirs, processing plants, further processing plants and cold stores).

http://www.redmeatsa.co.za/wp-content/uploads/2018/01/List-of-Sevice-Providers-IMI.pdf

7. SUBSISTENCE AND SMALL COMMERCIAL FARMERS

7.1 Overview

Emerging and contract broiler farmers contribute perhaps 2 % to the South African production of chicken meat. Emerging egg producers constitute less than 0.5 % of the industry total, so there is still a long way to go and much work to be done in opening up the poultry market to new farmers.

An independently operating subsidiary of SAPA, the Developing Poultry Farmers Organisation (DPFO), was formed in 2003 to address the specific needs of emerging and small-scale producers of eggs, dressed broilers and live birds. The DPFO was concerned with promoting and advancing the developing sector of the South African poultry industry so that these farmers could move into the mainstream agricultural economy.

In late 2013, the need for a new, more efficient and relevant SAPA became clear. The restructuring process included consolidating the four SAPA subsidiaries - the Broiler Organisation, the Egg Organisation, the Chick Producers Organisation and the Developing Poultry Farmers Organisation – into two product-related organisations.

Under this consolidation process, producers from the DPFO were absorbed into their respective product value chains, falling under either the Broiler Organisation or the Egg Organisation.

It is important that smaller farms become fully integrated into the new structures and, to this end, a sub-committee on transformation was formally established in August 2014. The sub-committee is tasked with facilitating the transformation process for all SAPA members.

7.2 Subsistence and small commercial farmers: statistics

SAPA continues to play a major role in the collection of statistics by conducting quarterly surveys amongst new-entrant and small commercial farmers.

The aim is to better understand the unique conditions facing the smallholder poultry producer, so that appropriate support can be provided.

All small commercial farmers are encouraged to participate in these statistical surveys.

Figure 29 shows the distribution of survey respondents in South Africa for the period October to December 2019.

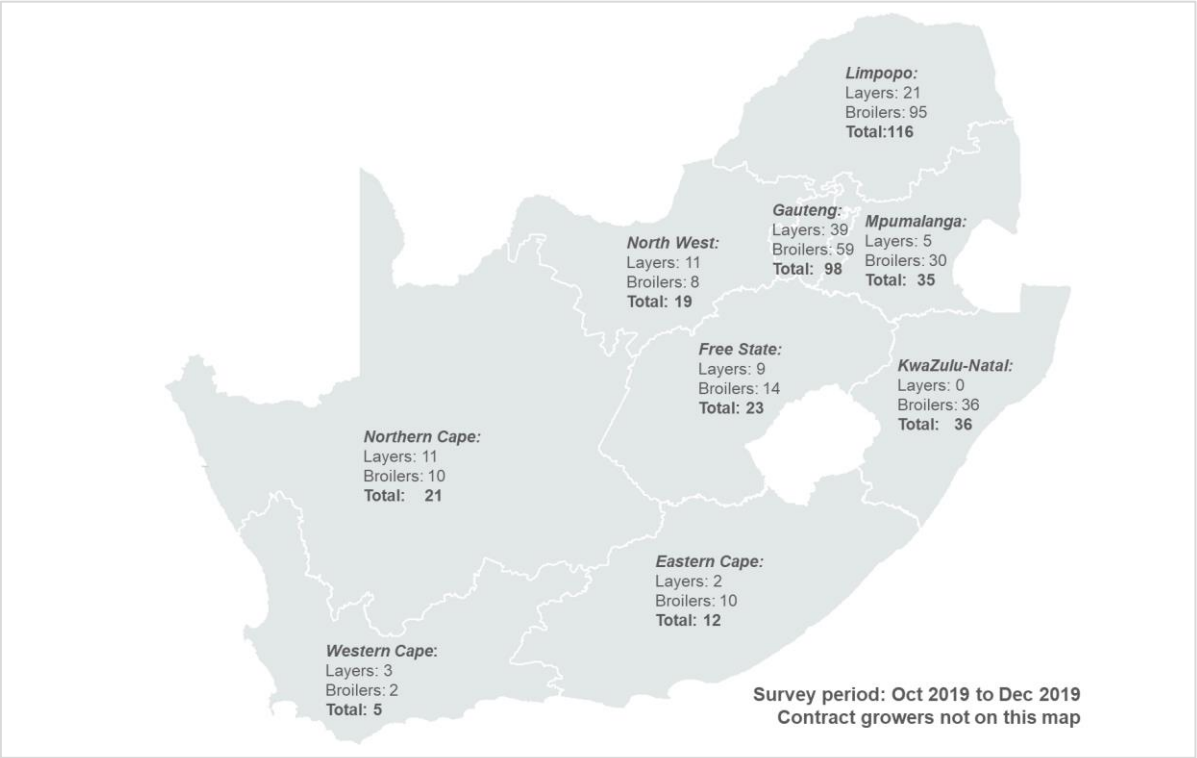


Figure 29. *Distribution of survey respondents (subsistence and small commercial farmers).*

Survey respondents have cited a number of challenges confronting them. These include:

- High input costs especially feed;
- Difficulty sourcing good quality day-old chicks, shavings and medication;
- Poor condition of their facilities;
- Lack of funding to expand;
- Absence of a local abattoir;
- High mortality rate caused by diseases or inclement weather;
- Too many competitors in the area giving rise to an unstable market;
- Non-payment or late payment by clients causing cash flow problems;
- Theft of birds due to unemployment and crime;
- Struggling with supply of electricity and water.

Small-scale egg farmers experience problems with diseases, the high cost of feed and point-of-lays, low production, adverse weather conditions, theft, the poor condition of poultry houses, an unstable market, and an unreliable water supply.

Statistical survey: the broiler industry

The statistical survey comprises different types of producers from the broiler industry, including broiler hatcheries, independent broiler growers, contract growers and abattoirs. A broiler smallholder farmer is defined as a broiler farmer producing less than, or equal to, 120 000 birds

per cycle. Figure 30 depicts the distribution of small broiler producers in South Africa in 2019. The survey results are summarised in the tables below.

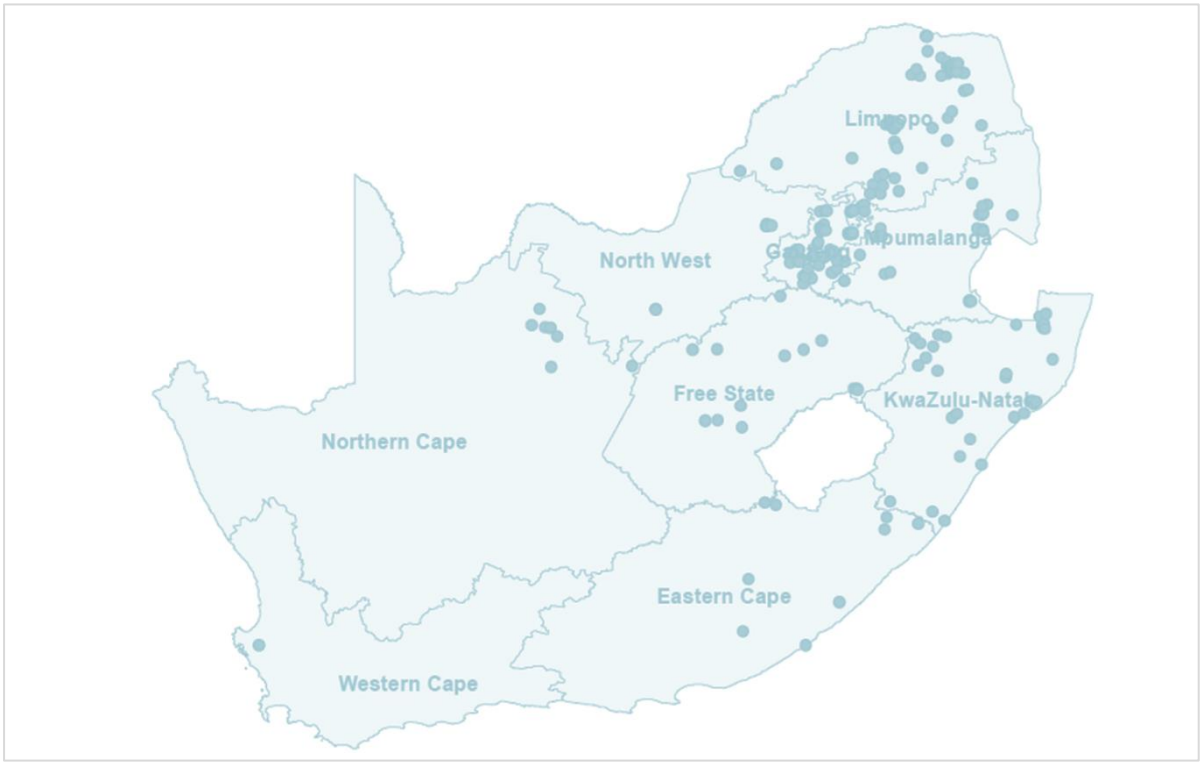


***Figure 30**. Distribution of small-scale broiler producers surveyed in 2019*

A large number of broiler producers exited the market throughout 2019; evidence of the difficult trading conditions (Table 15), but the ratio of stopped:resumed farming improved in Q4 2019.

Table 15: *Small broiler producers: survey respondents and business activity in 2019*

	Small commercial broiler farmers			
Period	Q1 2019	Q2 2019	Q3 2019	Q4 2019
Number of respondents	255	268	270	276
Completed questionnaires	218	234	228	255
Number that stopped farming	37	34	42	21
Number that resumed farming	21	12	17	30

The average costs of inputs paid by survey respondents, for the four quarters of 2019, are shown in Table 16 below.

Prices exclude VAT and delivery. Feed is mainly purchased in small quantities in 40 kg or 50 kg bags but for comparative purposes the prices are shown in rand per tonne. Prices paid by commercial farmers are shown in italics.

Table 16: *The average input costs of survey respondents in 2019: broiler producers*

	Input costs				
Period	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year
Day-old chicks (R/bird)	7.65	7.63	7.68	7.94	7.73
Broiler starter (R/t)	5 718	5 852	5 832	5 933	5 834
Broiler grower (R/t)	5 413	5 576	5 537	5 671	5 549
Broiler finisher (R/t)	5 348	5 275	5 305	5 406	5 334
Av. commercial broiler feed (R/t)	*5 557*	*5 678*	*5 581*	*5 655*	*5 618*

Figure 31 shows the average broiler feed prices per quarter for survey respondents (small commercial producers) and commercial producers. For the comparison, bag prices have been divided by 40 kg or 50 kg to change them to a R/kg price. The R/tonne bulk prices were divided by 1 000 to convert them to R/kg.

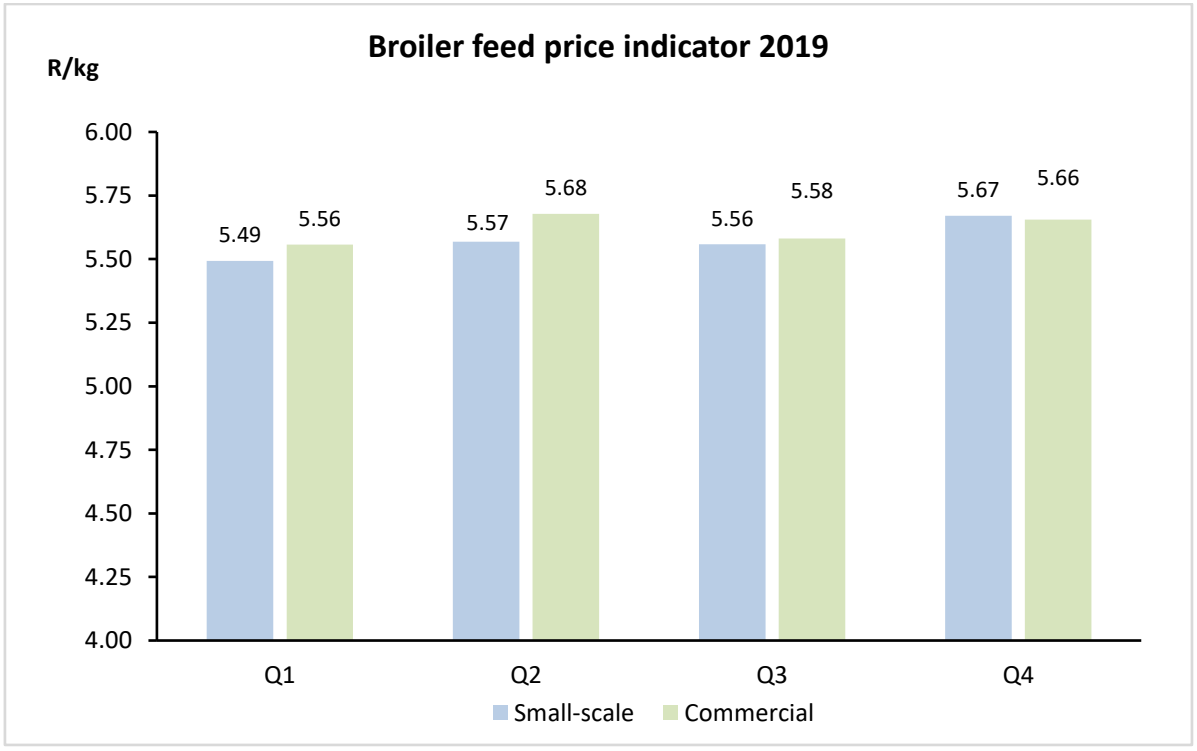


Figure 31. *Average broiler feed price indicator per quarter, for small and commercial farmers*

Production volumes and average selling prices for 2019 are summarised in Table 17 below. There is a large difference in the selling prices of slaughtered birds (R/kg) between small-scale members and commercial producers. Smallholder broiler farmers tend to slaughter the birds themselves, or pay an independent abattoir approximately R5.80 per bird to do the processing. These dressed birds are often sold directly to the end user at inflated prices. Commercial broiler producers sell dressed birds to the wholesale or retail sector in bulk quantities at relatively low prices, after discounts and rebates have been deducted by the supermarket chains.

Table 17: *Production volume and selling prices of survey respondents in 2019: broilers*

Period	2019
Live sales volume (birds)	1 227 035
Average price (R/bird)	54.87
Live sales as a % of total sales	83.2
Slaughtered volume (birds)	266 874
Average price (R/kg)	
Small-scale	*32.00 (R69.27/bird)*
Commercial	*22.89*

The estimated margin over feed cost, for small-scale and commercial producers, is shown in Figure 32. In doing these calculations, it was assumed that the feed conversion ratio is 1.7 (that is, a broiler eats 1.7 kg of feed to put on 1 kg of body weight or meat), and the dressing percentage is 72 % (that is, 72 % of the carcass is edible meat and the other 28 % is bone, feathers and inedible offal).

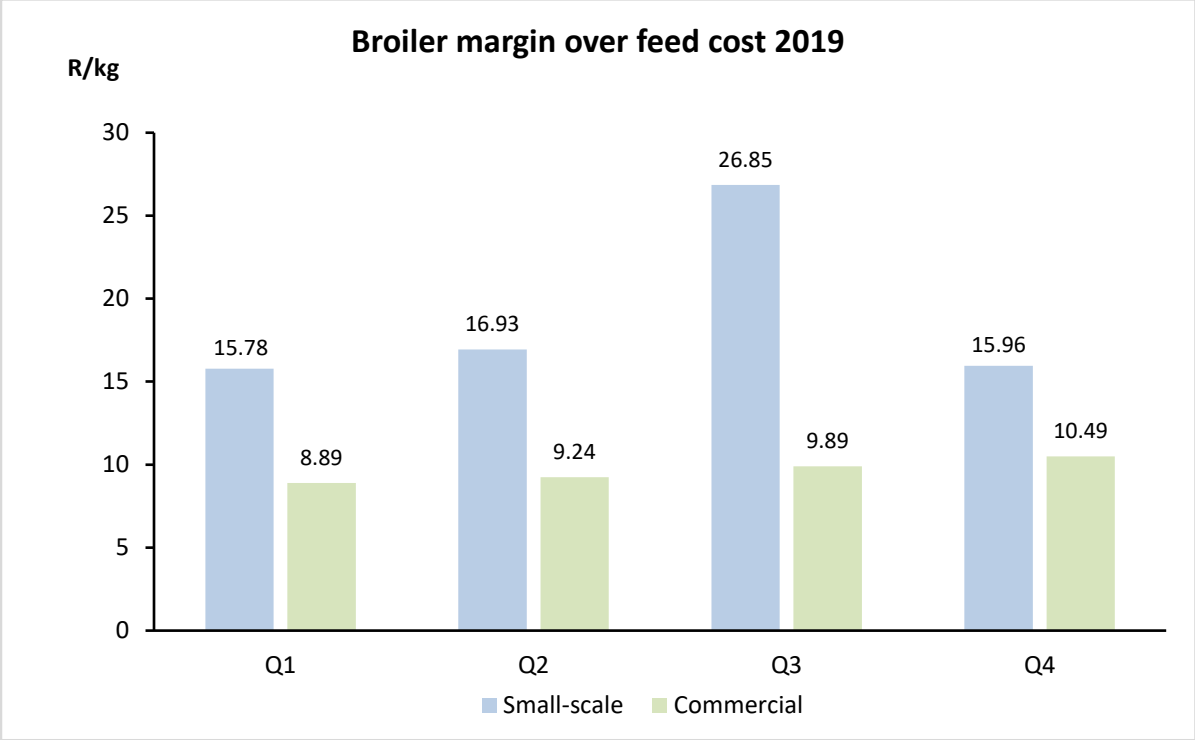


Figure 32. *Estimated margin over feed cost per quarter (broilers) for small-scale and commercial farmers*

As seen in Figure 32, the small-scale broiler farmers enjoy a substantially larger margin than commercial farmers because of their higher selling price.

In the broiler industry, the feed cost is approximately 70 % of total production cost. Other expenses that need to be taken into account before calculating the profit are gas, shavings,

vaccines, cleaning materials, salaries, water and electricity, protective clothing, and the cost of day-old chicks.

Statistical survey: the egg industry

The statistical survey includes both pullet rearers and commercial egg farmers (Table 18). A smallholder egg farmer is defined as an enterprise producing less than, or equal to, 20 000 eggs per day, that is, 1 667 dozen per day.

Figure 33 depicts the distribution of small-scale egg producers in South Africa. The survey results are summarised in the tables below. All prices are exclusive of VAT and delivery costs. Where possible, comparisons are drawn between the input and output prices for small-scale members and commercial producers, as estimated by SAPA.

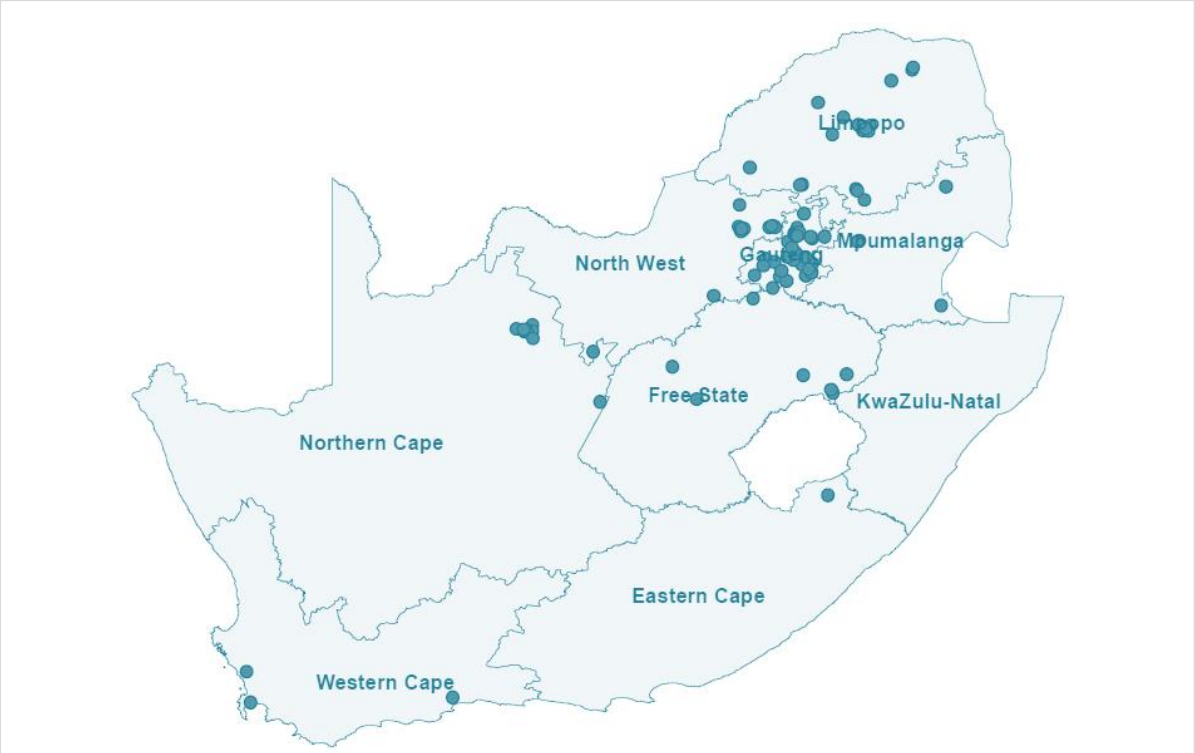


Figure 33. *Distribution of small-scale egg producers surveyed in 2019*

Table 18: *Survey respondents and business activity in 2019: small-scale egg producers*

	Surveyed small-scale egg producers			
Period	Q1 2019	Q2 2019	Q3 2019	Q4 2019
Number of respondents	91	93	107	115
Completed questionnaires	77	80	101	100
Number that stopped farming	14	13	6	14
Number that resumed farming	9	2	11	10

The majority of participants in the fourth quarter survey were resident in Gauteng, Limpopo, Free State and Northern Cape.

The cost of inputs is summarised in Table 19 below. The average feed price paid by commercial egg producers is shown in italics (source: SAPA survey, published in *Monthly Egg Price Report*).

Large commercial farmers generally have an advantage because they buy in bulk and therefore qualify for volume discounts. Small-scale members buying small quantities are paying a bagging cost and a mark-up if they are located far from the feed manufacturer and are purchasing from a depot or co-op.

According to the 2019 survey, 88 % of small egg producers bought their feed in bags while 12 % purchased in bulk.

Table 19: *The average input costs of small-scale survey respondents in 2019: eggs*

	Input costs				
Period	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year
Day-old pullet (R/bird)	10.05	11.16	11.10	10.68	10.75
Point-of-lay pullet (R/bird)	78.69	76.43	77.59	77.51	77.61
Laying mash (R/tonne)					
Small-scale (buying bags)	5 066	5 098	5 076	4 741	4 995
Commercial	3 967	4 330	4 500	4 142	4 235

The feed price in R/kg for the four quarters of 2019 is shown in Figure 34. The bag price is divided by 40 kg or 50 kg to give a R/kg price. For farmers buying in bulk, the R/tonne price is divided by 1 000. This allows us to compare feed prices for small and large egg producers.

There are substantial differences in the prices paid by small-scale members and commercial producers. Expressed as percentages, these differences are + 28 %, + 18 %, + 13 % and +14 % for the four consecutive quarters.

Bird numbers and egg production are shown below (Table 20). It is interesting to note that the laying farms are not stocked to capacity. The cost of purchasing layer replacements may be a factor because many smaller producers do not have adequate cash flow for a large purchase in one month. Smaller producers may also find it hard to source point-of-lay pullets.

Table 20: *Pullet and hen numbers: Small-scale layer farmers 2019*

	Pullet and hen numbers				
Period	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year
Number of pullets being reared	36 700	35 350	40 000	60 400	41 113
Number of laying hens	168 800	278 100	338 500	438 300	305 925
Farm capacity	473 700	558 200	643 500	781 300	614 175
%	35.6	49.8	52.6	56.1	48.5

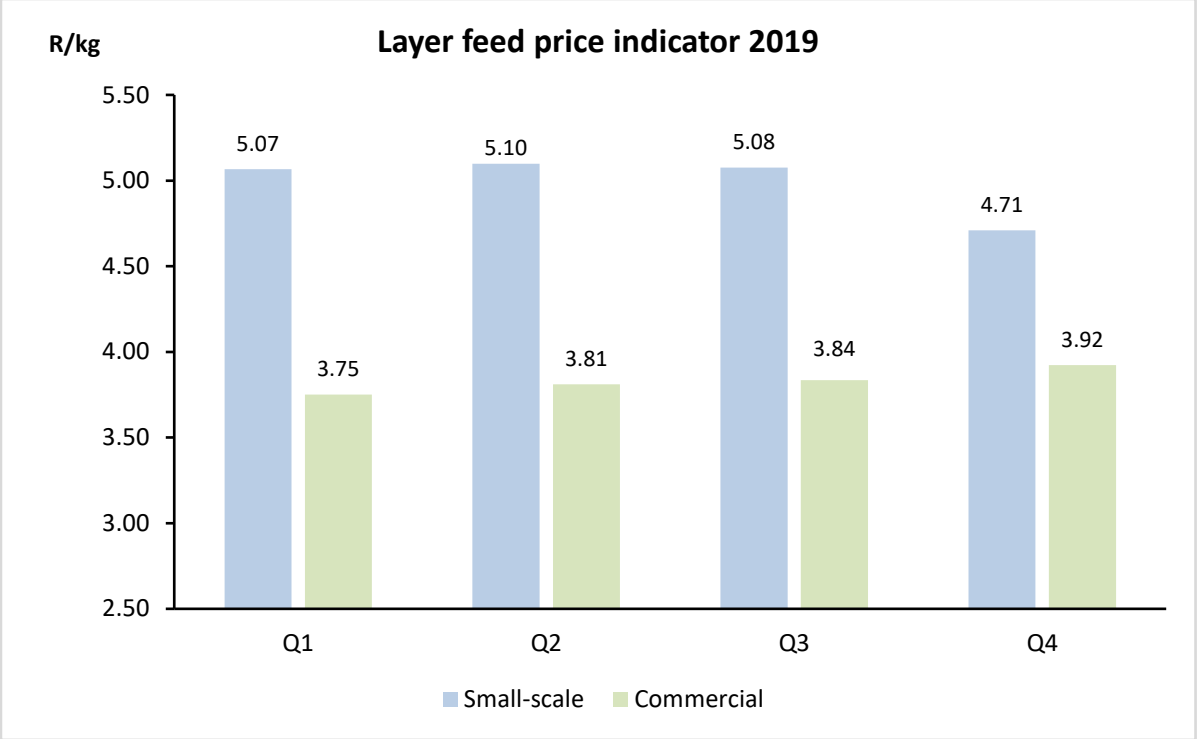


Figure 34. *Average layer feed price per quarter, for small-scale and commercial farmers*

Average selling prices and the estimated margin over feed cost are given in Table 21. The average prices obtained by commercial egg producers are shown in italics (source: SAPA survey, published in *Monthly Egg Price Report*).

Table 21: *Average selling prices and margin over feed cost: small-scale layer farmers 2019*

	Average selling prices and margin over feed cost				
Period	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Year
Egg price (R/doz)					
Small-scale	13.33	14.97	15.75	15.51	14.89
Commercial	*14.13*	*14.42*	*14.14*	*13.92*	*14.15*
Cull price (R/hen)					
Small-scale	38.74	38.55	41.36	45.21	40.97
Commercial	*22.28*	*27.62*	*26.70*	*26.13*	*25.68*
Feed cost (R/doz)					
Small-scale	8.11	8.16	8.12	7.54	7.98
Commercial	*6.00*	*6.10*	*6.14*	*6.28*	*6.13*
Margin over feed cost (R/doz)					
Small-scale	5.22	6.81	7.63	7.97	6.91
Commercial	*8.13*	*8.32*	*8.00*	*7.64*	*8.02*

Figure 35 shows the average price for eggs for the four quarters of 2019. Small-scale producers have fared better than commercial producers in the second half of the year, probably because they have succeeded in negotiating better prices with their customers. Large scale producers, supplying big cities and supermarket chains have been price-takers this year. Expressed as percentages, these price differences are – 5.7 %, + 3.8 %, + 11.4 % and +11.4 % for the four consecutive quarters.

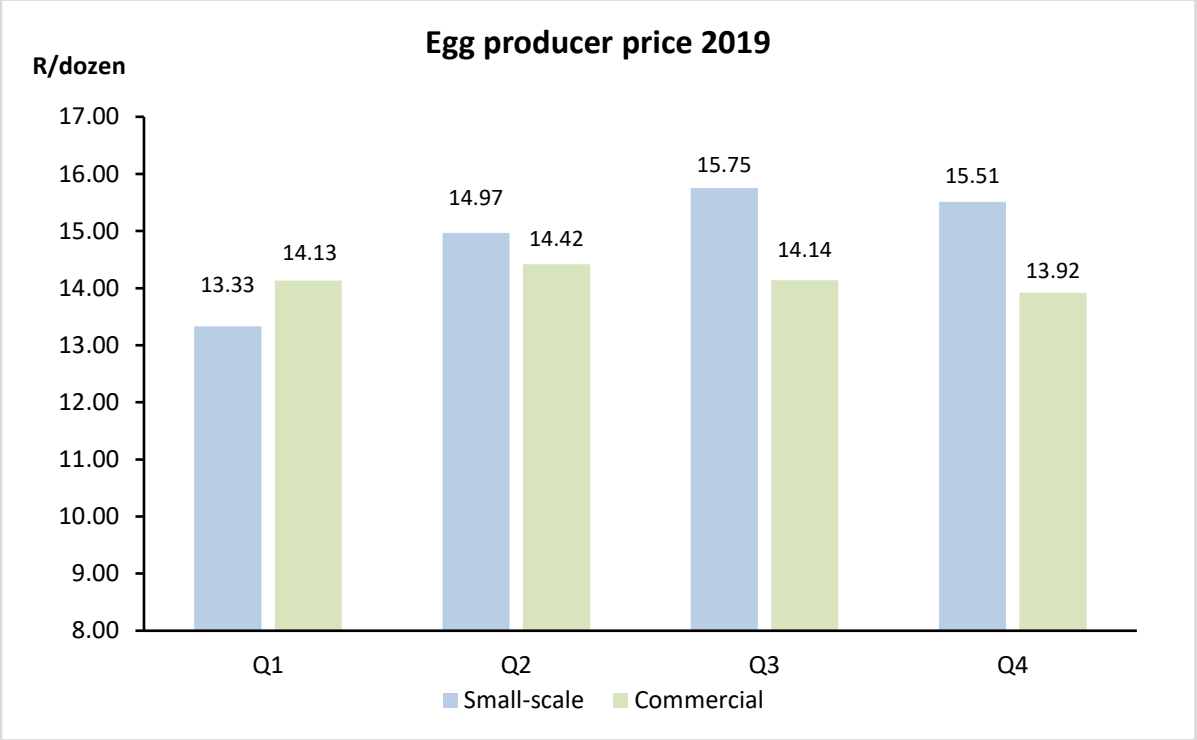


Figure 35. *Average producer price per quarter, for small-scale and commercial farmers*

The excellent cull hen price obtained at the end of the laying cycle puts the small farmers in a strong position to purchase new point-of-lays. In 2019, the average cull price of R40.97/hen was 53 % of the average point-of-lay price (R77.61).

In Table 21 (above), the estimated feed cost in rand per dozen is a calculation based on the feed price (R/kg) multiplied by a feed conversion of 1.6 kg/dozen. In the fourth quarter, every one dozen eggs produced cost the small-scale farmer R7.54 in feed.

The estimated margin over feed cost is calculated by subtracting the feed cost from the egg price. For small-scale farmers in the fourth quarter:

R15.51/doz – R7.54/doz = R7.97/doz

Figure 36 shows that, in 2019, small-scale farmers realised lower margins over feed cost than commercial producers. There is an opportunity here for smaller farmers to focus their efforts on marketing strategies that will increase their selling price.

Other monthly expenses, such as salaries, packaging material, electricity, water, vaccinations, cleaning materials and the cost of new point-of-lay pullets still need to be taken into account before working out the profit per dozen.

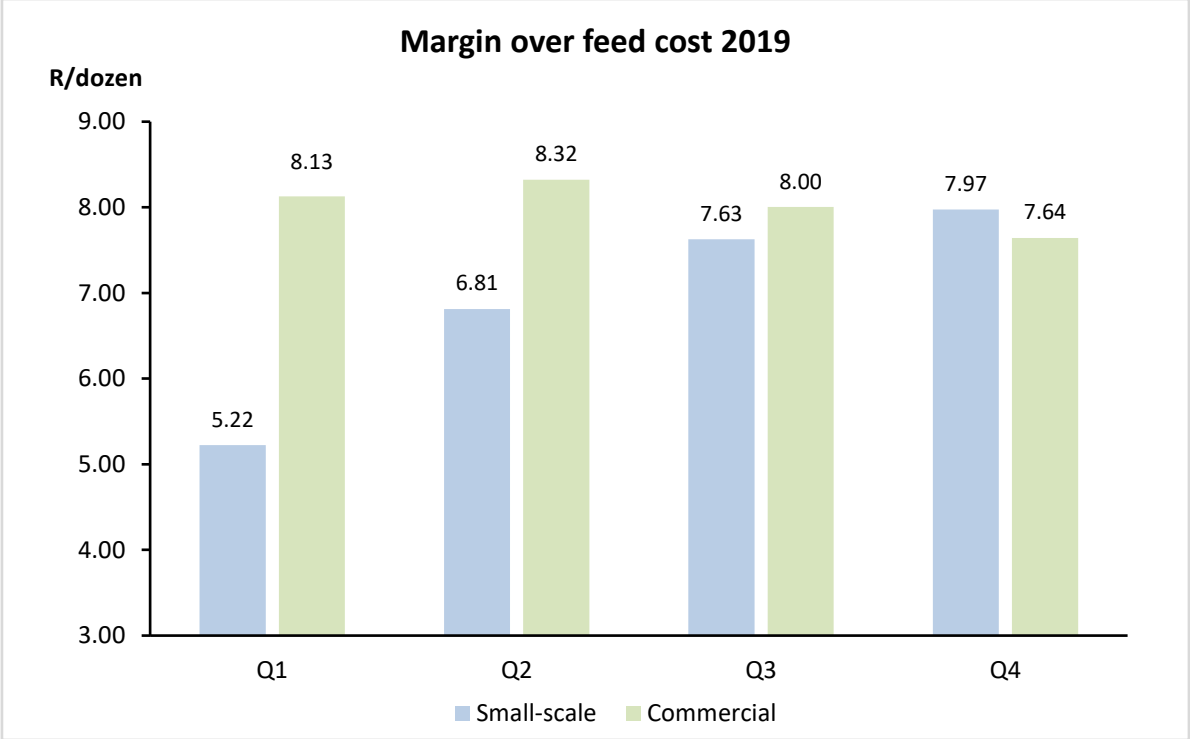


Figure 36. *Average margin over feed cost per quarter, for small-scale and commercial farmers*

Summary of statistical findings

There is a real opportunity for both smallholder broiler and egg farmers to make profits and develop sustainable businesses. It may not be possible to reduce the cost of inputs, but by focusing on improving farm efficiencies (reducing wastage and mortalities, and increasing production and growth rates), as well as securing reliable markets, the outcome could be very positive.

These results emphasise the importance of reliable statistics for the industry and small-scale farmers in particular. Agricultural statistics are key to measuring the performance in a sector. Data are used for decision making, planning, research, etc. The data presented in this report are obtained from the analysis of the small-scale farmer survey results. Grateful thanks go to Silverpath Consulting for the excellent job they do and to all the small-scale farmers who patiently contribute to the telephonic surveys.

The small-scale farmer statistics are the best available in South Africa but can get better with stakeholder involvement. We encourage all emerging farmers, whether SAPA members or not, to participate in these statistical surveys, so that we can present a better picture of the issues that confront this sector to the rest of the industry and other stakeholders. We need your assistance in this matter.

7.3 Industry transformation

A transformation committee was established during 2014 to facilitate transformation activities within SAPA and amongst the SAPA members, and to monitor progress and provide reports to the key stakeholders in transformation. More information can be found in Chapter 10.1.

Clearly the idea behind any transformation agenda is to give people who have been excluded from the mainstream economy an opportunity to successfully participate, but the solution is not always straightforward. Specific markets are needed for smaller new entrant farmers that will allow development projects to succeed and grow - but in recent years the industry as a whole has found itself under huge financial pressure. High levels of imports and soaring feed costs have put small businesses to the sword and only large, integrated operations, with economies of scale are likely to survive in the current environment. This is a worldwide trend in broiler and egg production. Meaningful transformation therefore remains difficult. On the one hand, Government is throwing significant resources at bringing small scale producers into the poultry value chain, in order for them to contribute to food security and rural development, but, on the other hand, it continues to expose the industry to open and often unfair market forces. Government could stimulate much greater levels of industry transformation by ensuring the unfair competition from dumped imports is removed from the market.

SAPA should be better placed to drive transformation projects over the next few years. The reintroduction of the statutory levy on egg producers comes with provisos. Twenty percent of the monies collected must be spent on industry transformations initiatives. In addition, NAMC has approved SAPA's evergreen transformation trust fund, created from the historical levy surplus, and this fund will be used to support transformation projects.

It remains of critical importance to integrate smallholder farmers and larger new-entrant commercial producers into the poultry value chains. They have a vital role to play in poverty alleviation, ensuring food supply and creating jobs in South Africa.

7.4 Prospects going forward

It is not easy to enter mainstream markets. A definite minimum size exists, below which a broiler farm will struggle to sustain its profitability. In addition, the farm must be close to a feed mill, veterinary services, and abattoir and cold-chain facilities. Egg producers face slightly fewer constraints and it is a little easier for emerging farmers to enter this market. However, egg producers, even at the commercial level, are consistently under strain in South Africa because demand for the product remains weak and does not increase at the same rate as broiler meat demand when consumers' disposable income increases. The Transformation Committee will continue to push for meaningful transformation within the industry to allow for much improved market access and to support its members with advice, training and mentoring.

8. POULTRY HEALTH / DISEASE AND WELFARE

8.1 Introduction

Outbreaks of poultry disease in recent years, such as Newcastle disease and highly pathogenic avian influenza, have demonstrated the vulnerable position the South African industry is in in terms of disease control. Outbreaks of HPAI have disastrous consequences for both the poultry industry and the consumer (in terms of the nation's protein supply, food security and food pricing). In the event of a catastrophic disease outbreak, the cost of restocking and disinfection programmes can run into billions of rands. To mitigate this risk, a number of programmes has been developed to safeguard the industry and to 'Protect the Flock'.

Since the first outbreak of Newcastle Disease (NCD) in the late 1960s, veterinary authorities have delegated implementation of control measures for this disease to the poultry industry. In the absence of a strong national veterinary service, the industry increasingly has to rely on its own initiative to put in place disease control measures against other challenges. The Poultry Disease Management Agency (PDMA) was established in 2012 to protect the national poultry flock through disease surveillance, monitoring, control and management of diseases which threaten the health of the flock and food security. The work of the PDMA is very important in achieving the required disease control compliance for export markets; especially for notifiable diseases such as NCD, salmonella infections (e.g. *Salmonella enteritidis*), HPAI and any other low pathogenic AI infections.

Funded by SAPA, the PDMA is located at the University of Pretoria Onderstepoort campus (OP) in the Department of Production Animal Studies.

The PDMA's strategic goals are to have direct involvement in poultry disease control measures through:

- Influencing policy for controlled diseases;
- Disease surveillance of commercial and non-commercial sectors of the poultry sector;
- Reduction of disease levels nationally, which includes a microbial reduction programme;
- Rapid response mechanisms against local and exotic disease threats;
- Improving veterinary and animal health training within South Africa;
- Establishment of a formal Public Private Partnership, under which the state delegates certain regulatory functions to the PDMA;
- Reducing the levels of residues in poultry meat through the residue monitoring programme;
- Collaboration with the ostrich industry for mutual benefit deriving from improved disease control;
- Achieving and maintaining export status for the benefit of both industries.

These goals translate into the PDMA strategic priorities of:

- Engaging national and local government on issues of disease control in the SA poultry industry;
- Making use of the database of poultry farms in South Africa to assist DALRRD with monitoring notifiable diseases such as avian influenza, salmonella and Newcastle disease, while simultaneously using it to develop monitoring programmes for critical diseases such as infectious bronchitis;
- Appointing or designating veterinarians with expertise in poultry diseases in each province who are available to assist state veterinarians in the event of disease outbreaks in commercial, smallholder and subsistence poultry;
- Advancing the role of the PDMA in training state veterinarians and/or animal health technicians to improve services delivered by the state in the event of disease outbreaks on poultry farms;
- Developing a residue monitoring programme for poultry products nationally, or at least a database of residue monitoring data that is available;
- Delivering improved technical and veterinary support to smallholder poultry farmers so they can achieve greater production success in collaboration with state veterinary services or through the PDMA's own initiatives;
- Collaborating with the ostrich industry.

The PDMA and SAPA work in close conjunction with the following branches of the Department of Agriculture, Land Reform and Land Development: Agricultural Production, Health and Food Safety; Food Security and Agrarian Reform; and Economic Development, Trade and Marketing.

The establishment of the PDMA and its successful implementation during 2012 was a major step forward in ensuring that the industry's flocks of commercial chicks, layers, broilers; indigenous and smallholder birds are protected.

8.2 The Poultry Disease Management Agency (PDMA) in 2019

Disease monitoring and surveillance

Avian influenza surveillance

The PDMA continued with improvements to the avian influenza (AI) surveillance programme in 2019. Since migrating the reporting of AI from submission of an Excel spreadsheet to a digital platform, there has been improved compliance and easier analysis of the results. The PDMA now aggregates AI data on a monthly basis for export compartments and bi-annually for non-export compartments. All surveillance submissions are now completed online and the PDMA quality

assures the data, consolidates it, and then reports to the industry and other stakeholders. This framework has enhanced risk analysis and developed an early reporting system.

The number of samples tested increased exponentially from the second semester report of 2017, going up from 17 497 in the 2H 2017 to 46 445 in the 1H 2019. The PDMA would like to thank participants for their continued support of the programme.

The PDMA also continued to improve the digital platform used for this surveillance and is in the process of moving the database to a web-based application. This will allow the setting up of multiple security levels, allowing for different users with different security clearances to access the database. It will also enable the expansion of the database to other diseases, which will start in earnest in the first quarter of 2020.

During the period under review, there were no cases recorded of H5N8 in chickens. Based on the 28 November 2018 to 5 February 2020 reports from the DALRRD, 16 cases of H5N8 were recorded in ostriches during this period, and one in wild birds between weeks 80 and 130 (Figure 37).

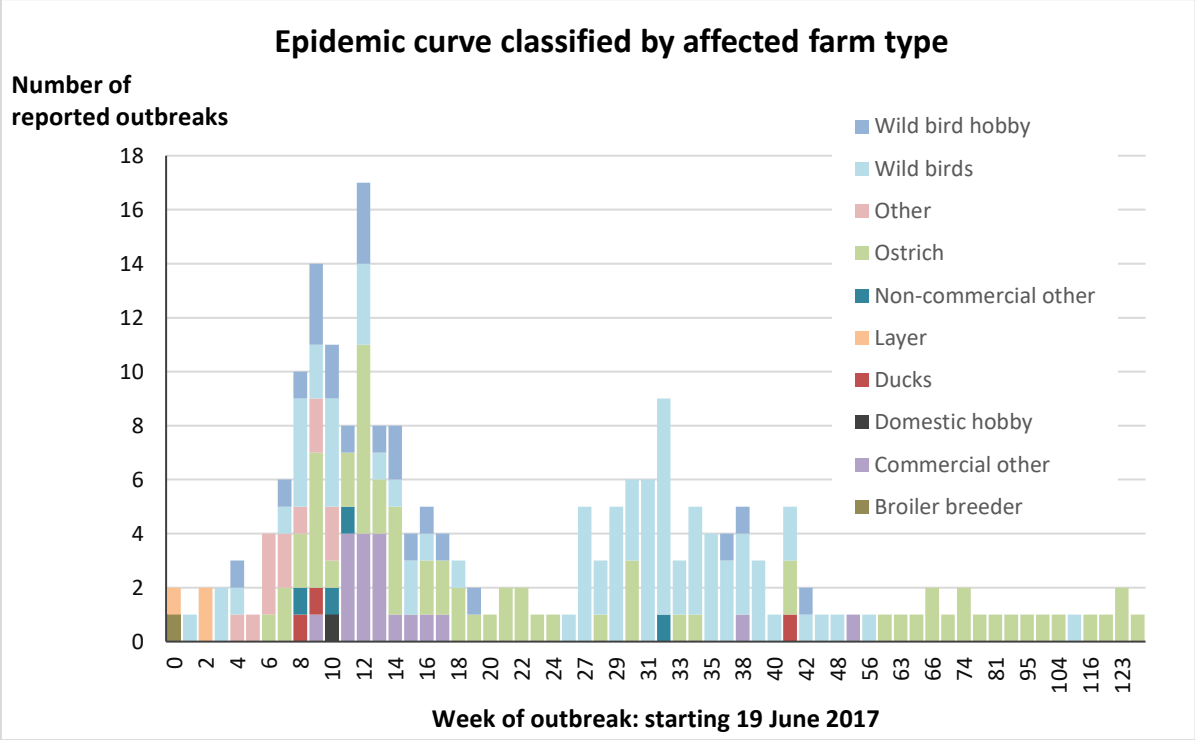


Figure 37. *South Africa 2017/2018 H5N8 HPAI epidemic curve, by farm type*

Most of these outbreaks occurred in Western Cape, although sporadic cases were reported in Free State, Eastern Cape as well as Northern Cape provinces (Figure 38).

Two outbreaks of H6N2 were reported, in North West and KwaZulu-Natal provinces. A total of 26 000 birds were potentially involved with 20 diagnosed cases reported.

Another 8 low pathogenic AI outbreaks were also reported during this period in Northern Cape (7) and Western Cape (1).

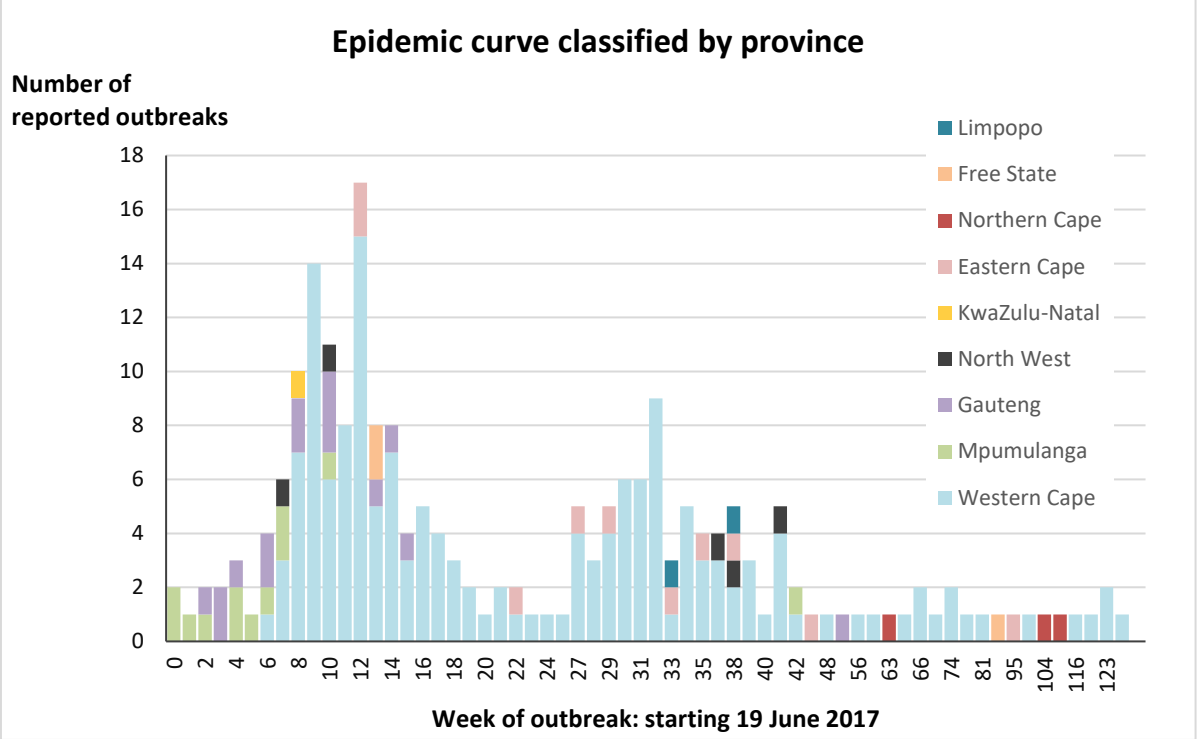


Figure 38. *South Africa 2017/2018 H5N8 HPAI epidemic curve, by province*

Tracking of the sale of live birds

An online database to enable the tracking of the sale of live birds was completed and is in use. This database is being migrated, like the other databases, to a web-based application, which will enable improved data analysis and quality assurance.

This tracking is fairly new and uptake has been slow. The PDMA will continue to encourage producers and cull traders to upload information onto the system.

8.3 Animal welfare

Over the years, the poultry industry has been sensitive to the animal welfare aspects of poultry farming practices and, therefore, the existing Code of Practice (COP) has been updated to give the necessary guidance for certain methods of production and in the handling of chickens. The last version in 2012 addressed the sensitive issues of cage density for commercial layers, drinker systems in cages, maceration and euthanasia of chickens, transportation of chickens, and the treatment of end-of-lay birds and cull outlets.

SAPA and the IEC continued to work with the OIE to develop global standards for laying hen housing. Following a meeting of the OIE Code Commission in September, detailed comments were submitted by the EO (through the Chief Veterinary Officer of South Africa) and the IEC on the chapter entitled 'Animal welfare and laying hen production systems'. In particular, the recommendation was made that the chapter takes into account the social, economic and cultural

diversity of OIE member countries, and issues of food security. The draft wording is to be put forward for adoption at the OIE General Session in May 2020.

The organisation Compassion in World Farming expressed disappointment and concern that the cage floor allowance of 450 cm^2 per hen will remain in use until 2039. This followed the announcement of the resolution, which was passed at Congress in June 2018, to keep feed trough space at 8.5 cm per hen and cage floor space at 450 cm^2 per hen until 1 January 2039. For new cage installations after 1 January 2019, the feed trough space should be increased to 10 cm per hen and the floor space to 550 cm^2.

SAPA has engaged Dr Thobela Nkukwana and Prof. Esté van Marle-Köster from the University of Pretoria to conduct scientific research into the effect of different housing systems on bird welfare and health, and consumer demand patterns for the various systems. The research aims to inform decision-makers regarding amendments to the poultry welfare legislation of South Africa. The literature review and preliminary results of the trials will be presented at Congress in June 2020.



9. AGRICULTURAL POLICY ACTION PLAN AND THE POULTRY MASTER PLAN

SAPA has collaborated with the Department of Agriculture, Land Reform and Land Development (DALRRD) on a series of strategic programmes and projects and believes an active and meaningful partnership between industry and government is important for all stakeholders.

In July 2013, Cabinet resolved that the Department of Agriculture, Land Reform and Land Development would develop a plan that addressed the vision of the National Development Plan (NDP) and the New Growth Path. Under the Medium Term Strategic Framework of the NDP, agricultural development was seen as key to realising three important outcomes: *Number 4* (decent employment through inclusive growth), *Number 7* (comprehensive rural development and food security) and *Number 10* (the continual protection and enhancement of environmental assets and natural resources).

Agriculture has been seen as critical in achieving higher levels of employment and better food security. Agriculture delivers more jobs per rand invested than any other sector and it is hoped that the sector can generate a million new jobs by 2030.

Vision 2030 of the National Development Plan calls for an inclusive rural economy wherein *"...rural communities should have greater opportunities to participate fully in the economic, social and political life of the country. People should have access to high-quality basic services that enable them to be well nourished, healthy and increasingly skilled. Rural economies will be supported by agriculture, and where possible by mining, tourism, agro-processing and fisheries…better integration of the country's rural areas, achieved though successful land reform, job creation and poverty alleviation".*

The National Development Plan, Chapter 6, set out clear targets and actions to realise this vision. It identified almost 600 000 potential jobs in communal areas and 400 000 jobs in commercial agriculture. Roughly a third of the jobs created would be in secondary and service industries, upstream and downstream of primary agricultural jobs.

Besides increasing the amount of land under irrigation and making better use of land in communal areas, the NDP also aimed to identify sectors of the agricultural economy which have the highest potential for growth and employment. Industries and regions with the most potential to create jobs would receive the most support.

The Department stated that there is a need to promote agricultural development in a manner that translates into rural development and poverty alleviation. Increased collaboration between successful farmers and the beneficiaries of land reform programmes is seen as important in job creation. The Department also identified a need to find a better balance between large-scale and small-scale subsectors, thus broadening market participation.

The Agricultural Action Policy Plan (APAP), presented as a draft in spring 2014 and accepted by Parliament in March 2015, is a value-chain approach to encouraging rural development. Under this Plan, the Department of Agriculture identified important agricultural value-chains and will target government investment accordingly.

The Department was concerned that South Africa increasingly relies on imports of crops (wheat; soya) and livestock products (poultry), while agriculture itself relies on imports of inputs (e.g. fertiliser, feed, mechanisation). There still exists a need to create a more sustainable and productive sector and to strengthen the country's competitiveness by supporting localization where there is potential.

Whilst poultry production is not as labour intensive as, for example, horticulture or sugarcane farming, the potential for growth in this sector is seen as high. The Poultry Integrated Value chain was identified as one of eight sectoral key action programmes (KAPs) under APAP. These sectors were chosen based on their contribution to food security, job creation and growth, and their potential contribution to South Africa's trade balance. The other KAPs are: red meat; fruit and vegetables; wine; forestry; fisheries; wheat and biofuels.

The APAP programme was designed to provide a long-term vision and focused interventions in a five-year rolling schedule. The programme is based on Sectoral Key Action Programmes (mentioned above) and Transversal Key Action Programmes (e.g. research and innovation; land reform; Fetsa Tlala (the government's hunger eradication programme); Climate Smart Agriculture (CSA) and the Strategic Integrated Project on Agro-Logistics and Rural Infrastructure).

Institutional arrangements and processes were also to be put in place to help achieve the development objectives, especially in integrating planning, monitoring and evaluation between Agriculture, Rural Development and Land Reform, across all three spheres of government (local, provincial and national).

Each Key Action Programme in APAP has: a problem statement; aspirations; policy levers; nature of interventions and key outputs (actions).

For the Poultry Integrated Value Chain, the problem statement reads as follows:

- Globally, poultry is expected to account for more than half of meat consumption. SA's consumption of white meat has increased far more rapidly than that of red meat and consumption is expected to increase by 34% by 2023 (to 2.6 million tonnes or 50 kg per capita). Unfortunately, much of this increase has been by way of imports, especially of low-cost frozen portions. Production is only expected to expand by 2 million tonnes to 2023, "*necessitating*" the importation of 680 000 tonnes per year (SAPA's emphasis, italics: imports are reducing local production, not compensating for lack of domestic capacity).
- Poultry production systems have a high dependency on imported feed grains for animal feed; up to 63 % of soya oilcake has been imported in the past, pushing up feed prices.

The strategy of the Key Action Programme for poultry focuses on import substitution.

The Department of Agriculture, Land Reform and Land Development saw the main challenges and constraints to the broiler industry as:

- The increasing cost of production, especially feed and energy
- The increasing cost of day-old chicks, and variable quality of day-old chick supply in the market
- Dumping and/or oversupply of imports from the EU & South America
- Variable control of poultry diseases
- Low demand/consumption in neighbouring countries
- High initial investment for start-up
- Need for R&D to improve production systems and feed conversion ratio
- Unstable electricity supply
- Monopolistic behaviour of processors and retailers
- Lack of official information in the market, stock population, etc.
- Inadequate market access for smallholder producers
- Highly concentrated commercial poultry sector with less smallholder farmer participation
- Slow transformation agenda
- Abattoirs and hatcheries not well located for smallholder farmers
- Losses due to diseases and pests
- Low levels of transformation

In terms of raw materials, the Key Action Programme has worked effectively to ensure a reduction in feed costs by increasing domestic production of soya bean (to meet increased capacity in crushing facilities) and infrastructure investment in soya bean and yellow maize production and processing. Soya bean-grading regulations were to be amended, and regulation relating to the retention of protected soya bean seeds were to be developed and implemented. Smallholder training programmes focused on soya bean and yellow maize production and post-harvest practices were to be refined and expanded. Off-take agreements with feed companies would be sought.

Research programmes were to be initiated, aimed at making broiler production more energy-efficient and at developing higher-yielding soya bean varieties through partnerships with private sector seed companies.

For more information on the Agricultural Policy Action Plan, the reader is referred to the following link for a full presentation on the aims of the programme:

http://agbiz.co.za/uploads/AgbizNews/15917_APAP.pdf

As part of APAP, a national Poultry support programme (“Master Plan”) has been developed and is being implemented in partnership with SAPA. The Poultry Master Plan, launched in November 2019, has been discussed above in Chapter 6.1. More information can be found at:

https://www.dalrrd.gov.za/docs/media/SA%20Poultry%20Sector%20Master%20Plan%201.pdf

10. SAPA STRATEGY

Following years of disinterest and dissent, producers pulled together behind SAPA in 2018 and committed to build a strong representative body for the industry. Agreement was reached on the way forward involving a new organisational structure, collection models, and key activities.

A special general meeting was held on 12 April 2018 to approve the changes to the constitution. The new constitution was registered with the South African Revenue Service on 1 June 2018. The amendments were ratified at Congress on 12 June, allowing for the replacement of the CEO with two general managers and the removal of provincial structures.

SAPA now consists of two independent organisations, each with its own board and general manager. The Broiler and Egg boards take full responsibility for their administrative functions and their general managers report to the board of directors. The SAPA Board retains the governance and fiduciary responsibilities of SAPA.

After analysing feedback from exhibitors and attendees of the 2018 Congress, the decision was taken by the Board to hold the AviAfrica Congress every second year. In the years in between, the AGMs will be held at different venues around South Africa. In 2019, these meetings were held in Stellenbosch.

A decision was taken by the Board to employ an agricultural economist who will assist with the compilation of industry statistics and economic interpretation of reports, and also help to liaise with producers and representatives from government and allied industries.

10.1 Industry transformation

The key tasks of the Transformation Committee are:

- To align government's economic empowerment policy with the actions and policies of SAPA and to help close economic gaps between black and white poultry farmers. The emphasis is on facilitating and overseeing transformation for all SAPA members through identifying business opportunities and enabling processes, as well as recording and reporting on transformation outcomes;
- To ensure that government is fully informed of transformation activities in the poultry sector through a two-way communication process, which will allow government to advise on policy developments, funding criteria, and related transformation opportunities;
- To mobilise resources at a strategic level for enterprise development, as per the AgriBEE scorecard, by providing advice and guidance to developing farmers, as well as facilitating the initiation and completion of development projects;
- To deploy specialist resources and project management to support development projects.

During 2019, SAPA worked collaboratively with the DALRRD to assist with the revitalisation of 19 existing land reform poultry farms identified by the Department as part of the government's economic stimulus package. SAPA utilised its transformation levy to assist the identified farms with business development services, which included business planning and financial modelling, water use license applications, and environmental impact assessments, as all of these farms need to expand their operations. The completed documents were then submitted to the department to process and determine the level of support they would provide to the entrepreneurs in terms of infrastructural investments and costs of operations. These producers were then encouraged to join as members of SAPA so that they can benefit from other support measures offered by the Association. Additionally, SAPA utilised funding sourced from AgriSETA to roll out a capacity building programme on biosecurity for these farms and SAPA members. A total of 62 producers and their technical personnel participated in the programme, which was rolled out in 4 separate groups during the year.

In order to upscale transformation initiatives during 2020, SAPA received an offer from the National Agricultural Marketing Council (NAMC) to second one of their officials to the association, for a period of three years, to serve as a transformation officer and provide the required capacity and technical support.

11. TRAINING AND SKILLS DEVELOPMENT

Two separate amounts were secured from AgriSETA for training in 2019: these were R497 600 for poultry meat examiner (PME) and poultry meat inspector (PMI) training, and R498 800 for small farmer biosecurity training.

11.1 AgriSETA-funded PME and PMI training

A call was made by SAPA for producers to take part in this initiative and a total of 57 PME candidates and 15 PMI candidates were registered for training. All of the candidates successfully completed the courses and were deemed competent by the service provider, the Academy for Continuous Professional Development.

11.2 AgriSETA-funded biosecurity training

Through this initiative, a total of 62 farmers attended the training held at the KwaZulu-Natal Poultry Institute. The delegates were from Gauteng (16), KwaZulu-Natal (16), Limpopo (16) and North West (14). The final two courses will be offered in March 2020.

12. CONCLUSION

South African egg and broiler producers entered 2019 with feed prices on the rise and margins shrinking. Market conditions deteriorated as the year dragged on. Producers go into 2020 under sustained pressure from rising feed costs, a glut in supply (egg producers) and high levels of cheap imports (broiler producers). While not as impressive as the 2016/17 harvest, the 2019/20 maize crop looks set to exceed local consumption, supporting South Africa's position as a net exporter of maize. However, maize and soybean prices are expected to trend upwards through 2020 because of a global influence on local commodity markets. In its October *World Economic Outlook*, the International Monetary Fund adjusted its growth estimate for the South African economy downwards from 1.5 % to 0.8 % for 2018 and predicts disappointing growth of only 0.7 % in 2019. Record levels of unemployment and a stalled economy reduce disposable income and a growth rate of 0.7 % will not be enough to improve employment figures and drive spending. The year ahead promises to be a challenging one for local poultry farmers if GDP growth cannot be improved.

Egg prices are likely to remain under pressure in 2020 unless the supply and demand balance can be improved. Given only small annual improvements in per capita consumption, this balance will only be achieved by reducing production. Producers will continue to fight retailers for a fair share of the price consumers pay for eggs. Tighter biosecurity measures worked in winter 2019 and prevented a new HPAI outbreak in commercial flocks so farmers will feel less anxious as the 2020 winter approaches. Egg export markets should regain some more ground in 2020, now that the HPAI scare is over.

Local consumption of eggs (152 eggs per person per annum in 2019) has improved by 7.0% compared to levels before the HPAI outbreaks (2015/2016) and are only just below the peak achieved in 2012 (152.5 eggs/person). This is a promising development for egg producers but may be related to depressed prices. The industry will need to sustain and improve per capita consumption to grow the industry. With egg consumption in countries such as the US, Russia, Mexico, Japan and China exceeding 220 eggs per person per annum and, in some cases, approaching an egg a day, there is considerable scope in the SADC region to increase local per capita consumption. Clever advertising and marketing campaigns could help cement this year's gain in per capita consumption. Now that the statutory levy of 1.5 c per dozen on all eggs sold has been reintroduced, SAPA's Egg Organisation is expected to take the lead in promoting the consumption of eggs. It is likely that welfare issues will continue to dominate the egg industry press for some time to come and represent a challenge to industry survival and growth in an era of social media campaigns.

In the broiler industry, 2020 could be a slightly easier year if the EPA safeguard of 30 % and a possible increase in the *ad valorem* tariff on chicken portions reduce poultry imports from the EU and Brazil. However, the European countries which export to South Africa have suffered no recent outbreaks of HPAI and can be expected to gradually return to the market as bans are lifted. It will be interesting to see whether the EPA safeguard, which is scheduled to decrease to 25 % in March 2020, will be enough to keep imports from the UK, Netherlands and Germany in abeyance. If these three exporters do not resume exporting to South Africa, Poland, Ireland, Denmark and Spain still have the potential to claw market share back from the Brazilians,

particularly with frozen bone-in portions. Imports accounted for 23 % of South African poultry consumption in 2019; and 28 % of total local broiler production. The survival of the local industry now rides on the success or failure of the Poultry Master Plan, which was introduced in November 2019. It must be hoped that government and industry together will implement the plan quickly and effectively, to stimulate growth and job creation in the South African poultry industry whilst allowing *fair* trade from exporting nations.

Looking beyond tariff protection, the broiler industry must seek to unlock export opportunities in conjunction with DALRRD and the Department of Trade and Industry. Smaller independent producers must be assisted with improved economies of scale and access to the domestic market. The designation of domestic poultry products in government and municipal procurement processes would be of value in this regard. There is scope to invest in equipment to produce mechanically deboned meat (MDM).

The local poultry industry faces challenges ahead in terms of bird welfare legislation, plant-based alternatives to eggs and broiler meat, regulations governing the use of antibiotics in production, and environmental sustainability issues. SAPA is committed to representing the interests of both large and small producers and to protecting the egg and broiler industries from further contraction in the face of these challenges. SAPA remains dedicated to realising its vision: to create a viable and sustainable industry, contributing to economic growth and development, employment, and food security based on successful producers adhering to environmental and ethical production norms and generating sustainable profits.

Poultry producers will hope that 2020 brings more welcome rain, an improvement in economic growth and disposable incomes, and concrete steps to protect local farmers from the predatory strategies of meat importers. Government at last seems to be recognising that, for every tonne of egg and meat product *not* imported, a significant number of local jobs can be created. A much stronger partnership between the industry and government in 2020 is something to be celebrated.

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

SAPA contact details

Postal address
PO Box 1202, HONEYDEW, 2040, South Africa

Physical address
Wild Fig Business Park, Block C, 1494 Cranberry Street,
HONEYDEW Ext 19, 2170

GPS: S026^{0}04’714” | E027^{0}55’535”

e-mail
info@sapoultry.co.za
www.sapoultry.co.za