SOUTH AFRICAN POULTRY ASSOCIATION
2017 INDUSTRY PROFILE

“Better together as partners”
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INTRODUCTION

The poultry industry remains the largest single contributor to the agricultural sector in South Africa. Some 19.6% of the total agricultural gross value in 2017 stemmed from poultry production and 40.0% of animal product gross value. The industry provides direct employment for over 54 000 people and indirect employment to a further 58 000 people; is the second largest consumer of maize; and supports many peripheral businesses as well as those downstream in the value chain. The poultry industry’s influence on the success of the South African feed industry is considerable.

With the drought easing in many parts of the country, the record-breaking maize harvest in 2017 has improved the chicken to maize price ratio for producers. However, it remains 40% below the level seen in 2004/5, which spurred expansion in the broiler industry.

Poultry meat imports continued to flood into South Africa in 2017. In January, two large producers announced farm and processing plant closures. The resultant retrenchments and trade union activism prompted a government-led task team to carry out an in-depth investigation into problems besetting the industry. The task team was to propose remedial action which might include trade measures, tariffs, industrial finance, incentive schemes, export support and state procurement procedures. By year end, little concrete action had come from the recommendations made. Although broiler imports for 2017 were 0.8% lower than in 2016 because of avian influenza events in Europe, levels were still 25% higher than the 5-year average from 2012 to 2016. Imports continue to threaten the survival of the local broiler industry going into 2018.

There were tremors in the entire poultry industry mid-year as the deadly highly pathogenic avian influenza (HPAI) H5N8 virus hit South African farms for the first time. Producers had just recovered from the after-effects of a crippling drought and were enjoying lower feed prices and increased profit margins. Direct financial losses from the HPAI outbreak (resulting from high mortalities, mass culling, the increased cost of heightened biosecurity, loss of fertile eggs and loss in egg income) were estimated at R954 million by SAPA. There were other consequences to follow: farms closed, jobs were shed, export markets were lost, egg prices soared, and per capita egg consumption declined. The commercial layer sector was the hardest hit, with an estimated loss of 4.69 million laying hens.

While South Africa will quickly return to self-sufficiency in egg production, producers remain price-takers and per capita consumption is disappointingly low compared to global averages. Egg farmers have welcomed the lower feed prices this season as they continue to receive an ever-decreasing portion of the retail price of eggs.
1. 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. It was primarily a body of poultry hobbyists, catering 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 serves 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, the SAPA Management Committee now operates with only two subsidiary committees: the Broiler and Egg Organisations. Producers from the Chick Producers and the Developing Poultry Farmers Organisations have been absorbed into their respective product value chains, falling under either the Broiler Organisation or the Egg Organisation. The objectives of the new streamlined South African Poultry Organisation are as follows:

To establish and maintain a national organisation in South Africa, embracing the subsidiary organisations established to provide for the various specialised sections of the poultry industries, so that these subsidiaries and their members can co-operate effectively for the development of the broader poultry industry;

To co-ordinate the views, aims and efforts of the subsidiaries of the Association in the interests of the whole poultry industry in South Africa;

To advance all matters tending towards the improvement of the broader poultry and allied industries in South Africa by embracing and co-ordinating the objectives of these subsidiary organisations and particularly by:
The South African Poultry Association is controlled by a Management Committee (MC) that co-ordinates its activities and objectives, oversees administration, and looks after the collective interests of its members. In addition, 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, Forestry and Fisheries (DAFF), the Consumer Goods Council of South Africa, the South African Veterinary Association, academics and consultants.

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 on member producers.

Up until mid-2015, the Chick Producers’ Organisation operated to promote and develop the poultry-breeding and chick-production section of the poultry industry as an independent division of the South African Poultry Association. As part of the strategic restructuring of SAPA, the Chick Producers’ Organisation was absorbed into the Broiler and Egg Organisations from mid-2015.

1.4 The Egg Organisation

The role of the Egg Organisation in South Africa is to promote, develop and guide the commercial egg industry as an independent subsidiary branch of the South African Poultry Association, equal in status to other subsidiary branches of the poultry industry.
During the past few years, membership of the Organisation has shrunk, with the loss of both large and small egg producers. It became apparent that the only way to fund the organisation would be through a statutory levy.

In 2017, SAPA continued in its engagement with the National Agricultural Marketing Council (NAMC) to initiate a statutory egg levy of 1 cent per dozen sold. To qualify for a levy, the SAPA application must be supported by the producers of at least 66% of the country’s eggs. At a special meeting of egg producers in September, it was resolved that producers need to stand together to combat HPAI and to support a representative body. It was also agreed that the industry needs an egg-only statutory levy to fund its activities.

A budget drafted in October 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 levy application process may take from six to eighteen months, depending on objections raised. The Egg Organisation would have to be dissolved if this initiative fails because of a financial deficit.

1.5 Representation of the industry

The membership of SAPA’s two organisations in 2017 was as follows:

- Broilers 42
- Eggs 93 (42 individual members and 51 members of co-operatives)

Please note that these figures now 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 45% of the broiler industry, on the basis of kilogrammes of edible broiler meat and products sold (770 440 tonnes recorded from total annual production of 1 726 320 tonnes).

SAPA’s new constitution allows for the establishment of provincial structures to represent the interests of producers at a regional level. Meetings took place in KwaZulu-Natal in 2016 and in Gauteng and North West in 2017. The idea is for local committees to be formed in to drive provincial activities and promote regional transformation.

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.
With some guaranteed funding available through the statutory levy, the role of the DPFO in facilitating the participation of small scale farmers, individuals and collectives in the South African poultry sector was greatly enhanced and industry transformation looked to be assured. The termination of the statutory levies reduced the amount of money available for DPFO-specific projects and general organisational work and, from 2015, the organisation was absorbed into the Broiler and Egg Organisations as part of SAPA’s strategic restructuring.

1.7 Engagement with stakeholders

It is through partnerships with the Departments of Agriculture, Forestry and Fisheries (DAFF), Economic Development, Rural Development and Land Reform, 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.

DAFF 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 are part of the plan and are therefore beneficiaries. The plan aligns DAFF and other government funding with national strategic objectives. Transformation is 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. The latest initiative, officially launched in February 2017, is Operation Phakisa for Agriculture, Land Reform and Rural Development. Operation Phakisa is 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 (Chapter 9).

Following the establishment of the government-led task team into poultry farm closures and retrenchments, various ministers were assigned tasks and numerous meetings with stakeholders took place in Parliament through 2017 (more detail is given in the Chapter 6; The Broiler Industry). In addition, the Association of Meat Importers and Exporters called for government to investigate the state of the broiler industry. This gave SAPA an opportunity to present its case to Parliament’s Portfolio Committee on Agriculture, Forestry and Fisheries.

SAPA continued to work with the International Trade Administration Commission of South Africa (ITAC) in an effort to increase the 13.9% safeguard on EU bone-in portion imports. In other trade matters, relating to the AGOA, SAPA is contesting the decision by government to lower sanitary and phytosanitary standards in favour of US importers.

SAPA continued to serve on committees of the International Poultry Council, the International Egg Commission and the Animal Welfare Working Group of the World Organisation for Animal Health. SAPA was also represented on the Avian Influenza Global Expert Group.
SAPA engaged with DAFF regarding the department’s appointment of an independent company known as the Agency for Food Safety and Quality (AFSQ) to provide inspection services to abattoirs and pack stations – at a fee to producers. The Agricultural Products Standards Act, Act 119 of 1990, allows for the appointment of assignees to do work on behalf of DAFF. However, there had been no consultation with the industry prior to the notice appearing in the government gazette on 17 February 2017. Several producers were unhappy with the way the process had been driven and with the costs that are likely to be incurred. SAPA subsequently met with AFSQ to discuss how the system would be implemented and whether the proposed fees could be lowered.

Trade visits to Iran and the United Arab Emirates took place in May, and export opportunities as well as sanitary and phytosanitary issues were discussed.

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

Quarterly
- DPFO 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, Forestry and Fisheries, and an annual Industry Profile.

Members and non-members are encouraged to submit monthly production figures to SAPA. The data collected include 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 Industry Profile, 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 76% of the birds in the South African poultry industry are used for meat production, while the remaining 24% are used in the egg industry. The South African broiler industry went through a period of substantial growth, averaging over 7% per annum, between 2004 and 2008. 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 contracted by 3.0% in 2016 and by a further 0.9% in 2017.

The earlier growth period was associated with increased demand for product and well-contained input costs. During the past eight 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. The growth experienced in 2015 could not be maintained into 2016 and 2017, given the lingering drought, avian influenza outbreak and ever-increasing broiler imports. In the egg industry, growth (in terms of the number of layer replacement pullets housed per annum and egg production) has averaged approximately – 0.3% and + 0.8%, respectively, since 2007. To put these numbers in perspective, annual population growth between 2004 and 2008 was 1.4% and between 2008 and 2017 was around 1.8% per annum.

2.1 Gross value

The gross value of primary agricultural production from poultry meat for 2017, as recorded by DAFF, was 44.045 billion (+ 20.1% on 2016 levels). The gross value of egg production was recorded at R10.776 billion (+ 5.6%). Combined, the gross poultry farm income for 2017 was R54.810 billion, showing a yearly increase of 17.0%. According to DAFF estimates for 2017, total production of poultry meat, including spent hens from the broiler and layer sectors, was 1.657 million tonnes. The total production of shell eggs and eggs products was 0.415 million tonnes.

Broiler and egg producers are, in rand value, the largest sector of South African agriculture at 19.8% of all agricultural production (up from 18% in 2016) and 40.0% of all animal products (up from 39.0%). The 19.8% contribution from poultry products breaks down into 15.9% from poultry meat and 3.9% from eggs. Our nearest competitor, the beef industry, contributed 13.2% to turnover of all agricultural production and 26.7% of animal products.

The total gross value of animal products was R137.087 billion and the total gross value of agricultural products was R276.738 billion in 2017. Total animal products contributed 49.5% to the gross value of total agricultural products. The gross value of ostrich feathers and products was R381.2 million in 2017 (down from R438.9 million in 2016); this is 0.14% of agricultural production and 0.28% 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 continues to dominate the animal products sector, providing 64.4% (up from 63.7% in 2016) of locally produced animal protein (excluding milk) consumed in the country.

The per capita consumption of poultry meat and eggs in 2017 was 38.9 kg and 7.3 kg, respectively, with a combined per capita consumption of 46.2 kg (including backyard consumption).

Per capita consumption of beef, pork, and mutton and goat were 17.8 kg, 4.6 kg, and 3.2 kg respectively (source: DAFF).

![Per capita consumption of animal proteins](image)

**Figure 1.** Per capita consumption of protein sources from 2007 to 2017 (DAFF)

The gap is widening between the total consumption of poultry meat and eggs and the total consumption of other types of meat (Figure 1). During 2017, the total consumption of poultry meat and eggs (according to DAFF) was 2.649 million tonnes; 80.9% more than the combined 1.464 million tonnes of beef, pork, mutton and goat consumed over the same period. Of this, 2.215 million tonnes were poultry meat products (including imports) and 0.434 million tonnes was 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 R45.41 per kg in 2017, while the abattoir selling price for Class C2 / C3 beef was R39.26 per kg. The average price for pork (all classes) was R27.57 per kg. The total realisation producer price for broilers (less all discounts, rebates and secondary distribution) was R21.44 per kg in 2017. 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 because of avian influenza-related shortages. The average producer price of eggs in 2017 was R21.40 per kg. The average 2016/2017 prices of animal proteins are given in Figure 2 and monthly prices since 2013 are shown in Figure 3.

![Producer prices for protein sources: annual averages](image)

**Figure 2.** Average annual producer prices for different protein sources in 2016 and 2017

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. The cost effectiveness of egg as a protein source needs to be communicated fully to the South African public. For decades, doctors, scientists and government agencies have warned against diets high in cholesterol. However, in the 2015 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 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 high-quality protein and vitamins (A, B₁₂, D, riboflavin and folate), may lower the risk of heart problems.

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

2.4 Employment

An employment survey was conducted in 2012 and estimates were made for 2017, based on negative growth in the industry.

The estimated direct employment in the broiler industry in 2017 is 47 025. This number includes hatcheries, rearing, processing and distribution. If related industries are taken into account, another 58 383 employees can be added; totalling 105 408 employees. The poultry share of employees in the related field crops is 17 738 in 2017.

With an estimated 7 503 workers nationwide in 2017, the egg industry is an important player in rural employment. In the last full survey undertaken in 2013, an estimated 6 870 workers, 722 supervisors and 416 managers were employed in the industry, covering support staff, processing, packing, laying, rearing-pullet hatching, parents, parent-rearing and hatching, GP laying and rearing.
Table 1:  *Surveyed direct employment in the broiler industry (2017; estimated)*

<table>
<thead>
<tr>
<th>Number of employees (including contract workers)</th>
<th>Junior staff (Paterson A and B grades)</th>
<th>Supervisory and senior staff (Paterson C grades and above)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broiler breeder, hatchery and rearing industries (including GPs)</td>
<td>12 596</td>
<td>1 556</td>
<td>14 152</td>
</tr>
<tr>
<td>Broiler processing industries</td>
<td>24 954</td>
<td>1 984</td>
<td>26 938</td>
</tr>
<tr>
<td>Broiler distribution industries</td>
<td>4 367</td>
<td>1 568</td>
<td>5 935</td>
</tr>
<tr>
<td><strong>Grand total for direct employees</strong></td>
<td><strong>41 917</strong></td>
<td><strong>5 108</strong></td>
<td><strong>47 025</strong></td>
</tr>
<tr>
<td>Total employees in support industries – indirect employees</td>
<td></td>
<td></td>
<td>58 383</td>
</tr>
<tr>
<td><strong>Total direct and indirect employees</strong></td>
<td></td>
<td></td>
<td><strong>105 408</strong></td>
</tr>
<tr>
<td>Total of related field crops i.e. white and yellow maize and soya</td>
<td></td>
<td></td>
<td>47 408</td>
</tr>
<tr>
<td>Poultry share of related field crops</td>
<td></td>
<td></td>
<td><strong>17 738</strong></td>
</tr>
</tbody>
</table>

SAPA’S producer database contains records of 1 057 small-scale farmers who are currently not members. In addition, there are 231 potential commercial egg producers and 170 potential commercial broiler producers. 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 crop for 2014/15 was only 9.95 million tonnes, down from 14.25 million tonnes in the previous season. The crop for the 2015/16 season reduced further to 7.778 million tonnes, a 22% year-on-year decrease (source: SAGIS). In excess of 2 million tonnes of maize were imported in the 2015/2016 season; the first time imports had been necessary in seven years. 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. White maize was recorded at 9.89 million tonnes and yellow maize at 6.85 million tonnes. The 2017/2018 harvest is currently expected to be 12.83 million tonnes (Crops Estimate Committee); the smaller harvest being a reflection of increased plantings of other crops rather than unfavourable climatic conditions.

The South African poultry industry remains the biggest non-human consumer of locally produced maize (AFMA) and, in 2017, maize contributed R29.8 billion to the gross value of agricultural products (source: DAFF).
2.6 Poultry feed: sales of complete feed

According to AFMA estimates, a total of 6.362 million tonnes of animal feed were manufactured by its members in 2017. The poultry industry consumed 3.94 million tonnes, of which 2.569 million t were broiler feed, 0.88 million t were layer feed, 0.470 million t were breeder feed and 0.015 million t were ostrich feed. In total, a massive 62 % of AFMA’s animal feed sales went to the poultry industry (Figure 4). National feed production during 2016/17 (April to March) was 11.136 million tonnes, a 5.1 % year-on-year decrease in feed sales. AFMA sales represent 59.9 % of the national feed produced (source: AFMA).

2.7 International price competitiveness

Although chicken consumption (local production + imports - exports) has increased by around 19 % in the period 2007 to 2017, local production has only increased by 7 % in the same period. Broiler imports, mostly from the Americas and the EU, increased by 118 % between 2007 and 2017. This raises the question: 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. 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. Brazil, Argentina and the US, amongst the most highly competitive poultry producing nations, are, in addition, all net exporters of both maize and soybeans. In a study on the
competitiveness of the EU poultry sector (LEI Wageningen UR, 2017), EU feed-related production costs in 2015 were 11, 28 and 14 % higher than feed-related production costs in the US, Brazil and Argentina, respectively.

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. In the 2016 season, this was because South Africa only produced about 67 % of its soybean requirement (Grain SA). 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. South African poultry farmers therefore have not been in themselves technically-inefficient producers; there has simply been an insufficient supply of locally grown, affordable feed inputs. In the 2017 season, South African soybean farmers made big strides towards national self-sufficiency in soybean production, with the crop estimated at 1.32 million tonnes (+ 77 % over 2016; Crops Estimate Committee).

The Bureau for Food and Agricultural Policy’s “Baseline (2015)” report indicated that the cost of primary production and slaughter in the EU nations is higher than in South Africa, the US, Brazil, Argentina and the Ukraine. Total production costs in the EU were higher than those in the US, Brazil and Argentina by 26, 39 and 20 %, respectively. In the 2015 drought years, the US and Argentina enjoyed production costs 4 % below those incurred by South African producers. Brazilian and Ukrainian producers were able to produce chicken for 17.5 % and 12.5 % less than their South African counterparts.

Figures from the Bureau for Food and Agricultural Policy’s “Baseline (2015)” suggest that, in 2014, feed costs in South Africa were approximately 30 % higher than in Brazil on a €/tonne basis; and that the €-cost per kilogramme live weight was approximately 13 % higher in South Africa. 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).

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.

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 8 % above South African levels (Poland) to 24 % in Denmark. The Netherlands, France, Germany and the UK produce chicken at 20 %, 23 %, 21 % and 17.5 % above South African production costs, respectively (2014/2015 data). 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. Annual broiler imports according to tariff line, expressed as a percentage of total broiler imports. Bone-in portions as a %

Figure 5, above, illustrates how the amount of bone-in chicken imports, as a proportion of total poultry imports, has increased over the past 9 years. 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) or boneless chicken portions (12 % tariff) in the imports has decreased in recent years; whereas the proportion of bone-in portions (37 % tariff; except for EU) is steadily increasing and exceeded 40 % of total imports from 2012 to 2017. Even with outbreaks of
Avian influenza disrupting trade in European poultry products, bone-in portions still accounted for 45% of total imports in both 2016 and 2017. The EU currently enjoys duty-free access to the South African poultry market, under the Trade, Development and Co-operation Agreement (TDCA). With anti-dumping legislation in place against the US on tariff lines 0207.1491 to 1499 (frozen bone-in chicken imports), most of these bone-in imports have originated from the EU. 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 has to allow 65 000 tonnes/annum of US frozen bone-in chicken portions into the country from January 2016. South Africa applies a tariff of 37% to imports of frozen bone-in portions, affecting all exporters except the EU, EFTA and SADC nations. In addition, the US has been paying an anti-dumping tariff on this line of R9.40/kg, which will not be payable on the 65 000-tonne quota.

The International Trade Administration Commission (ITAC) has accepted that imports of frozen bone-in portions from the UK, Germany and the Netherlands are causing downward pressure on domestic prices and that these imports are 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. Anti-dumping measures against these three countries have been legislated (interim duties July 2014; final measures February 2015).

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. 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 it is still 40% below the level seen in 2004/5, which spurred expansion in the industry (BFAP). Consumption of broiler products in South Africa is outstripping growth in the local industry which, as stated above, shows that the shortfall is being met through importation. A favourable chicken to maize price ratio and more effective measures to counter dumping would support expansion in the local industry. The drought is easing, the rand continues to be unstable and avian influenza may return regularly to disrupt EU exports to South Africa. Under these conditions, and with suitable measures in place against US and Brazilian exports, growth in the local poultry industry could be supported from 2017 onwards.

While cheap imports may benefit consumers if the cheap import prices are passed onto consumers (something 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 and 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. Where the poultry industry has the capacity to significantly increase employment opportunities in South Africa, import companies do not employ many staff.

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 in 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, Food and Fisheries 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.
3. SOUTHERN AFRICAN DEVELOPMENT COMMUNITY (SADC) OVERVIEW

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](image)

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 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 matter;
- 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)*

According to the Food and Agriculture Organisation (FAO), the total production of chicken meat in the SADC countries during 2017 was 2.27 million tonnes (Table 2). While the accuracy of these figures may be questionable, they do offer an insight into regional production trends over the last decade. There has been substantial growth in broiler production levels in Angola, Malawi and Mozambique in the 10 years to 2017, and good growth in Madagascar, Mauritius, South Africa, eSwatini (Swaziland), Zimbabwe, Tanzania and Zambia. However, with the exception of South Africa, this growth has 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 2017 table illustrates that South Africa is losing market share in the region, as neighbouring countries develop their industries. However, South Africa still dominates regional production of chicken meat, accounting for 73.1 % of total production in the SADC bloc in 2017 (FAOstats). Malawi and Tanzania are the next biggest producers, but each account for less than 6 % of the total regional production of broiler meat. Contraction of the industry occurred in Botswana, the Democratic Republic of Congo, Lesotho, Namibia and the Seychelles over the past decade.
Table 2: The production of chicken meat in the SADC member countries in 2017 (FAOstats).

<table>
<thead>
<tr>
<th>SADC Country</th>
<th>Production</th>
<th>% Growth</th>
<th>% of Total production</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2017</td>
<td>(10 yr)</td>
<td></td>
</tr>
<tr>
<td>Unit</td>
<td>Tonnes</td>
<td>tonnes</td>
<td>%</td>
<td>M</td>
</tr>
<tr>
<td>Angola</td>
<td>10 800</td>
<td>42 165</td>
<td>+ 290</td>
<td>29.78</td>
</tr>
<tr>
<td>Botswana</td>
<td>5 600</td>
<td>4 600</td>
<td>- 17.9</td>
<td>2.29</td>
</tr>
<tr>
<td>Dem. Republic Congo</td>
<td>10 700</td>
<td>10 389</td>
<td>- 2.9</td>
<td>81.34</td>
</tr>
<tr>
<td>Lesotho</td>
<td>2 240</td>
<td>1 920</td>
<td>- 14.3</td>
<td>2.23</td>
</tr>
<tr>
<td>Madagascar</td>
<td>36 604</td>
<td>46 533</td>
<td>+ 27.1</td>
<td>25.57</td>
</tr>
<tr>
<td>Malawi</td>
<td>13 686</td>
<td>130 114</td>
<td>+ 851</td>
<td>18.62</td>
</tr>
<tr>
<td>Mauritius</td>
<td>40 160</td>
<td>47 500</td>
<td>+ 18.3</td>
<td>2.5</td>
</tr>
<tr>
<td>Mozambique</td>
<td>23 400</td>
<td>88 952</td>
<td>+ 280</td>
<td>29.67</td>
</tr>
<tr>
<td>Namibia</td>
<td>12 800</td>
<td>10 806</td>
<td>- 15.6</td>
<td>2.53</td>
</tr>
<tr>
<td>Seychelles</td>
<td>833</td>
<td>639</td>
<td>- 23.3</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>South Africa</td>
<td>1 125 000</td>
<td>1 658 000</td>
<td>+ 47.4</td>
<td>56.72</td>
</tr>
<tr>
<td>eSwatini (Swaziland)</td>
<td>5 150</td>
<td>5 992</td>
<td>+ 16.3</td>
<td>1.37</td>
</tr>
<tr>
<td>United Rep. of Tanzania</td>
<td>77 280</td>
<td>104 062</td>
<td>+ 34.7</td>
<td>57.31</td>
</tr>
<tr>
<td>Zambia</td>
<td>36 500</td>
<td>48 911</td>
<td>+ 34.0</td>
<td>17.09</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>56 925</td>
<td>69 000</td>
<td>+ 21.2</td>
<td>16.53</td>
</tr>
<tr>
<td><strong>Total for SADC</strong></td>
<td><strong>1 457 678</strong></td>
<td><strong>2 269 583</strong></td>
<td><strong>77.2</strong></td>
<td><strong>342.4</strong></td>
</tr>
</tbody>
</table>

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 2016 (the most recent trade estimates), total production of “chicken meat” in the region at that time was 2 213 186 tonnes; total imports amounted to 844 550 t; and exports to 72 793 t. Using a 2016 population estimate of 333.3 million people, per capita consumption of chicken meat is approximately 9.2 kg (2016). 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 7.2 kg (2017).

**Commodity: hen eggs (FAO)**

The total production of hen eggs in the SADC region was 746 075 tonnes during 2017 (Table 3). 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 37.6 eggs in 2017. This was down from 41.0 eggs per capita in 2014. Per capita consumption ranges from approximately 2 eggs per person per annum in the Democratic Republic of the Congo to approximately 168 eggs per year in Mauritius and 163 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 source when compared to other animal proteins.

As with broiler production, South Africa dominates the egg industry in the SADC region; accounting for 58.0 % of total production in 2017 (FAOstats); down from 66.5 % in 2014. Mozambique has increased its capacity by over 270 % in the 10 years to 2017, taking market share from South Africa. Angola, the Democratic Republic of the Congo, eSwatini (Swaziland), Madagascar, Malawi, Mauritius, Tanzania and Zambia have all grown their egg industries over the past 10 years without reducing South Africa’s share of the overall market significantly.

Table 3: The production of chicken eggs in the SADC member countries in 2017 (FAOstats).

<table>
<thead>
<tr>
<th>SADC Country</th>
<th>Production</th>
<th>% Growth (10 yr)</th>
<th>% of Total production</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit</td>
<td>Tonnes</td>
<td>Tonnes</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Angola</td>
<td>4 568</td>
<td>5 250</td>
<td>+14.9</td>
<td>29.78</td>
</tr>
<tr>
<td>Botswana</td>
<td>5 000</td>
<td>4 000</td>
<td>-20.0</td>
<td>2.29</td>
</tr>
<tr>
<td>Dem. Republic Congo</td>
<td>7 250</td>
<td>8 800</td>
<td>+21.4</td>
<td>81.34</td>
</tr>
<tr>
<td>Lesotho</td>
<td>1 600</td>
<td>1 400</td>
<td>-12.5</td>
<td>2.23</td>
</tr>
<tr>
<td>Madagascar</td>
<td>15 480</td>
<td>17 700</td>
<td>+14.3</td>
<td>25.57</td>
</tr>
<tr>
<td>Malawi</td>
<td>19 780</td>
<td>23 067</td>
<td>+16.6</td>
<td>18.62</td>
</tr>
<tr>
<td>Mauritius</td>
<td>11 650</td>
<td>12 400</td>
<td>+6.4</td>
<td>1.27</td>
</tr>
<tr>
<td>Mozambique</td>
<td>14 341</td>
<td>53 000</td>
<td>+270</td>
<td>29.67</td>
</tr>
<tr>
<td>Namibia</td>
<td>3 200</td>
<td>2 851</td>
<td>-10.9</td>
<td>2.53</td>
</tr>
<tr>
<td>Seychelles</td>
<td>1 057</td>
<td>850</td>
<td>-19.6</td>
<td>0.09</td>
</tr>
<tr>
<td>South Africa</td>
<td>438 000</td>
<td>432 682</td>
<td>-1.2</td>
<td>56.72</td>
</tr>
<tr>
<td>Swaziland</td>
<td>1 050</td>
<td>1 375</td>
<td>+31.0</td>
<td>1.37</td>
</tr>
<tr>
<td>United Rep. of Tanzania</td>
<td>89 844</td>
<td>107 000</td>
<td>+19.1</td>
<td>57.31</td>
</tr>
<tr>
<td>Zambia</td>
<td>42 525</td>
<td>51 700</td>
<td>+21.6</td>
<td>17.09</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>27 600</td>
<td>24 000</td>
<td>-13.0</td>
<td>16.53</td>
</tr>
<tr>
<td><strong>Total for SADC</strong></td>
<td><strong>746 075</strong></td>
<td></td>
<td></td>
<td><strong>342.4</strong></td>
</tr>
</tbody>
</table>
4. DAY-OLD CHICK SUPPLY INDUSTRY

4.1 Overview

The day-old chick supply industry supplies inputs to both the egg and broiler industries. 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.

The broiler industry in South Africa makes use predominantly 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 predominantly 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 produce 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:

![Broiler Production Process Diagram](image)

**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.
4.2 Production: chick placement numbers per annum

Layer breeders

In 2017, there was an estimated 8 300 layer breeding birds in grandparent operations producing layer parents and between 232 000 and 306 000 layer breeding birds in parent operations producing layers. From the breeding stock, 24.30 million day-old pullets were produced, an increase of 1.2 % compared to 2016 (Figure 9).

Broiler breeders

The average number of parent males and females in rearing during 2017 was 3.535 million per week, from an estimated grandparent and great-grandparent stock of 244 000. This is a decrease of 343 000 parent birds (- 8.9 %) compared to 2016.
A total of 9.30 million day-old parent pullets were placed in 2017; 546 944 (- 5.6 %) less than in 2016. Based on the number of parent pullets placed, an average broiler breeder flock of 6.491 million hens was estimated for 2017 (Figure 10). This showed a decrease of 605 000 hens (- 8.5 %) compared to 2016. An average flock size of 6.23 million breeder hens was forecast for the first four months of 2018. 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. In total 988.7 million broiler chicks were placed during 2016; 2.46 million (- 0.25 %) less than in 2016 (Figure 11).

**Table 5:** The broiler flock in South Africa (2017)

<table>
<thead>
<tr>
<th>Year</th>
<th>Av. broiler parents (m)</th>
<th>Breeding stock (m)</th>
<th>Day-old broiler chicks produced (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in rear</td>
<td>in lay</td>
<td>av. / week</td>
</tr>
<tr>
<td>2016</td>
<td>3.88</td>
<td>7.10</td>
<td>10.97</td>
</tr>
<tr>
<td>2017</td>
<td>3.54</td>
<td>6.49</td>
<td>10.03</td>
</tr>
<tr>
<td>% change</td>
<td>-0.7</td>
<td>+1.8</td>
<td>+0.9</td>
</tr>
</tbody>
</table>

Note: The number of breeding birds in Table 5 includes males and females.
Figure 10. *Number of day old and 20-week parents placed per annum and average size of the national broiler breeder flock*

Figure 11. *Broiler chicks hatched per annum.*
4.3 Feed usage (broiler breeders)

In terms of feed usage, broiler breeding stock consumed 493 363 tonnes during 2017 (Table 6).

**Table 6:** Feed usage (tonnes) in parent and breeding operations

<table>
<thead>
<tr>
<th>Year</th>
<th>Parent rearing t/yr</th>
<th>Parent laying t/yr</th>
<th>Total broiler breeding stock t/yr</th>
<th>t/week</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>99 429</td>
<td>441 644</td>
<td>541 073</td>
<td>10 348</td>
</tr>
<tr>
<td>2017</td>
<td>90 332</td>
<td>403 032</td>
<td>493 363</td>
<td>9 462</td>
</tr>
<tr>
<td>Change</td>
<td>- 9 098</td>
<td>- 38 612</td>
<td>- 47 710</td>
<td>- 887</td>
</tr>
<tr>
<td>% Change</td>
<td>- 9.15</td>
<td>- 8.74</td>
<td>- 8.82</td>
<td>- 8.57</td>
</tr>
</tbody>
</table>
5. EGG INDUSTRY IN SOUTH AFRICA

5.1 Overview

South African egg producers welcomed 2017 with open arms after several years of exceptionally hard trading conditions stemming from sustained drought and soaring feed costs. The year began with decent rainfall in most parts of the country and a bumper maize crop led to lower feed prices by the middle of the year. Combined with good egg prices, market conditions supported healthier margins. However, June brought confirmation of the first highly pathogenic avian influenza (HPAI H5N8) outbreak in South Africa and a very difficult period of five months ensued.

The first case was recorded in broiler breeders near Villiers in Mpumalanga, followed by a second outbreak in a laying hen operation in Standerton. Despite control measures, further outbreaks occurred in farmed birds in Gauteng, Mpumalanga, the Western Cape, KwaZulu-Natal, North West, the Free State and the Eastern Cape, with the commercial layer sector the worst hit. An estimated 4.69 million laying hens died or were culled nationally; with 78 outbreaks recorded in 2017 (including commercial ostrich farms; OIE report 23 January 2018). The country was reported to be destroying a million table eggs a day produced by hens placed under quarantine.

With 25 egg farms across the country out of production, an estimated 3.7 million eggs a day were taken out of the market and retail prices rose by 15 % to 20 %. Prices are expected to remain elevated for some time as producers hold off on restocking until they are sure the spread of the disease has been contained. Industry representatives requested permission to import fertile eggs to close the supply gap, after a layer breeder farm was infected and had to be culled. A Fertile Egg Importation Protocol was agreed upon, under which DAFF will allow producers to apply to import fertile eggs to replace lost stock.

For producers lucky enough to avoid the HPAI virus, prices have been favourable but some businesses closed their doors forever; Government compensation not enough to keep them afloat. By mid-September, DAFF had only agreed to compensate farmers for uninfected birds culled as a result of measures to prevent the spread of an AI outbreak. An amount of R40 million had been released by Treasury to DAFF by October. The Bureau for Food and Agricultural Policy (BFAP) estimates the financial impact of the outbreak at around R1.87 billion rand, if biological losses, direct costs and income foregone are considered. This represents about 18 % of the gross value of egg production in the previous year (BFAP). It is estimated that 76 % of the income lost in the outbreak accrued to the egg industry (BFAP).

5.2 Turnover

With a gross turnover of R10.77 billion at producer level, eggs remain the fourth largest animal product sector in agriculture in South Africa, after poultry meat, beef and milk (source: DAFF). The turnover increased by 5.6 % compared to 2016. Eggs’ share of the gross value of animal products was 7.9 % and of all agricultural production 3.9; down from 8.5 % and 4.0 % the previous year.
The total value at retail level was R15.43 billion for 2017. About 593 million dozen eggs were sold in South Africa in 2017 through various channels.

5.3 Production

Laying flock

The size of the national layer flock decreased during 2017 (Figure 12). An average flock of 23.16 million hens was projected; a decrease of 1.64 million hens (-6.6%) compared to 2016. The biannual census figures show the effect of the avian influenza outbreak on the national flock more clearly. At the end of May 2017, there were an estimated 24.16 million laying hens, but this figure had plunged to 21.33 million hens by 31 December – an 11.7% decrease. In response to reports from the Poultry Disease Management Agency (PDMA) and World Organisation for Animal Health (OIE) statistics, 4.69 million hens were taken out of the egg forecasting model between June and October.

Figure 12. The national layer flock since 2013 (millions)

Egg production

A 2013 survey representing 45% of the industry indicated that the weighted average age at depopulation was 74 weeks. The production forecasting model was adjusted from December 2013 to take this lengthening of the laying cycle into account. A survey was conducted in the fourth quarter.
of 2015 to determine a more recent culling age, but the response from producers was poor. In view of this, the forecasting model will continue to use 74 weeks as the age at depopulation.

There was a dramatic drop in egg production in the second half of 2017 (Figure 13). The average number of cases produced per week was 378,957, a decrease of 27,830 cases (-6.8%) per week. Total egg production in 2017 amounted to 19.75 million cases, or 592.6 million dozen eggs; a decrease of 7.1% compared to 2016.

![Figure 13. Cases of eggs produced annually in South Africa](image)

Table 7, below, summarises bird numbers and egg production and shows the changes for 2017 compared to the previous year.

**Table 7: Bird numbers (millions) and egg production (million cases) for 2016 and 2017**

<table>
<thead>
<tr>
<th>Year</th>
<th>DOPs Placed</th>
<th>LRPs Placed</th>
<th>Laying hens Av. no.</th>
<th>Laying hens Depopulated</th>
<th>Cases of eggs Av./week</th>
<th>Cases of eggs Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>24.021</td>
<td>23.393</td>
<td>24.801</td>
<td>21.975</td>
<td>0.4068</td>
<td>21.268</td>
</tr>
<tr>
<td>2017</td>
<td>24.302</td>
<td>23.583</td>
<td>23.165</td>
<td>20.312</td>
<td>0.3789</td>
<td>19.753</td>
</tr>
<tr>
<td>Change</td>
<td>0.281</td>
<td>0.190</td>
<td>-1.64</td>
<td>-1.66</td>
<td>-0.028</td>
<td>-1.51</td>
</tr>
<tr>
<td>% Change</td>
<td>+1.2</td>
<td>+0.8</td>
<td>-6.6</td>
<td>-7.6</td>
<td>-6.8</td>
<td>-7.1</td>
</tr>
</tbody>
</table>

DOP = Day-old pullets
LRP = Layer replacement pullets

“Better together as partners”
Small footprint. Big impact.
Of the forecasted marketable graded eggs (Grade 1) that were sold in 2017, 9.0% were size medium, 44.1% were large, 42.8% were extra-large and 4.1% were jumbo. 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 59.0% in 2017.

Figure 14 depicts the relationship between egg volume and producer price.

![Figure 14. Percentage change in egg volume and producer price of eggs vs previous year (egg price after discounts, rebates and advertising)](chart)

To February 2013, oversupply due to positive growth in egg production reflected in negative year-on-year increases in both producer and PPI-deflated producer prices for eggs (PPI: producer price index). The high year-on-year increases in producer prices of 2013/14 were associated with a tightening supply of eggs (negative growth in egg production). However, in 2015, there was some growth in egg production and, in the second half of the year, year-on-year increases in producer prices were pleasingly high. 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, compared to 2H 2016. Please note: the percentage changes in egg prices presented in the graph are three-month moving averages. (PPI: producer price index).
The downward trend in day-old pullet placements during 2012 and 2013 turned from January 2014, increased steadily through 2015, stabilised in 2016 and early 2017 and plunged from mid-2017 as avian influenza hit South African flocks. The average number of point-of-lay pullets placed is expected to decrease by 2.6 % during the first four months of 2018, compared to the same period in 2017.

An average flock of 22.73 million hens is projected for the first four months of 2018; a decrease of 1.54 million hens (-6.3 %) compared to April 2017. Consequently, egg production is expected to decrease by 5.8 % (an average of 23 000 cases per week) to an average of 373 500 cases per week in April 2018, compared to the same month a year ago.

5.4 Producer egg prices

The average producer egg price (weighted) for 2017 was R14.99 per dozen; an increase of 16.7 % over the average price for 2016 (R12.84). Graded eggs have averaged R15.45 per dozen and ungraded eggs have sold at R13.80 per dozen. During 2017, 74 % of eggs were sold graded and 26 % ungraded. The average retail price for eggs, size large, was R26.04 per dozen in 2017 (Stats SA). In 2017, the retail and producer price increased by 5.8 % and 11.6 % over 2016 prices, respectively. Quarterly weighted producer egg prices, for caged production, are shown in Figure 15.

![Quarterly average egg price](image)

**Figure 15.** Quarterly weighted producer egg prices (caged production) from 1Q 2013
5.5 Feed usage and cost

Layers, in all stages of the production cycle consumed 1.106 million tonnes of feed in 2017 (SAPA). These figures exclude breeder rations. Of this total, layers in rearing consumed approximately 0.144 million tonnes and hens in lay consumed approximately 0.962 million tonnes.

The feed usage for layers and pullets in 2017 is summarised in Table 8 below.

Table 8: Feed usage in the egg industry in 2017 (Source: SAPA)

<table>
<thead>
<tr>
<th>Feed usage (tonnes)</th>
<th>Rearing per annum</th>
<th>Laying per annum</th>
<th>Total per annum</th>
<th>Total per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>140 811</td>
<td>1 034 185</td>
<td>1 174 996</td>
<td>22 473</td>
</tr>
<tr>
<td>2017</td>
<td>144 056</td>
<td>962 213</td>
<td>1 106 269</td>
<td>21 216</td>
</tr>
<tr>
<td>Change</td>
<td>3 245</td>
<td>-71 973</td>
<td>-68 728</td>
<td>-1 256</td>
</tr>
<tr>
<td>% change</td>
<td>2.30</td>
<td>-6.96</td>
<td>-5.85</td>
<td>-5.59</td>
</tr>
</tbody>
</table>

According to the Animal Feed Manufacturers Association (AFMA), national sales of layer feeds to their members amounted to 880 425 tonnes from 1 January to 31 December 2017, a 2.2 % decrease over 2016 levels.

Figure 16. The layer feed price indicator since January 2012
The average layer feed price indicator for 2017 decreased by 15% compared to 2016, to R3 457 per tonne. This followed year-on-year increases of 4.8%, 0.5% and 18.2% in the previous three years. The layer feed price indicator includes distribution, but excludes medication, additives and VAT. The movement in the feed price is shown in Figure 16, above.

Year-on-year percentage changes in the feed price index and the egg producer price are presented in Figure 17.

From October 2012 to December 2014, both feed and egg prices escalated year-on-year but only from April 2013 did increases in egg prices show any rise in excess of feed price increases. Negative year-on-year increases in feed prices in the first half of 2015 allowed positive year-on-year increases in the egg prices which continued in the second half of 2015, even as drought-related year-on-year increases in feed prices escalated from July 2015 onwards. 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.
5.6 Consumption

Per capita consumption of eggs in South Africa is shown in Figure 18.

![Per capita egg consumption in South Africa from 2013](image)

**Figure 18.** *Per capita egg consumption in South Africa from 2013*

![Global per capita consumption of eggs in 2016 (source: IEC)](image)

**Figure 19.** *Global per capita consumption of eggs in 2016 (source: IEC)*
The per capita consumption for 2017 was 128.2 eggs or 7.65 kg, compared to 141.4 or 8.39 kg in 2016 (source: SAPA). While the population increased by a midyear estimate of 1.6 %, the total consumption of eggs decreased by 9.4 % (Figure 18). The reduced availability and increased price of eggs due to the avian influenza outbreak had a marked effect on consumption. Peak egg consumption in South Africa occurred in 2012 at 152.5 eggs per person.

The annual per capita consumption of eggs for some of the top egg-eating nations is shown in Figure 19, for 2016. Considerable scope still 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.

5.7 Trade

Egg exports

Egg exports for 2017 totalled 14 073 tonnes (excluding ostrich eggs), a decrease of 13 % compared to 2016. The total value of all egg exports was R316 million.

Of the 14 073 tonnes exported, fertilised eggs accounted for 3 750 tonnes (26.6 %: 3 669 t chicken; and 809 t other species) at an FOB value of R150.7 million (fertilised chicken eggs: R148.6 million; fertilised eggs of other species: R2.1 million).

Besides fertile eggs, 10 323 tonnes of shell eggs and egg product were exported, at a FOB value of R165.6 million, as detailed below. Fresh shell eggs contributed 2 416 tonnes to exports (17.2 % of total: 2 083 t chicken; and 332 t other species) at an FOB value of R43.9 million (chicken shell eggs: R36.2 m; shell eggs of other species: R7.75 m).

Cooked or preserved shell eggs accounted for 7 514 tonnes of egg exports (53.4 %) at an FOB value of R112.5 million.

South Africa exported 394 t of egg “products” in 2017 (2.8 % of total exports). Dried products accounted for 338 t of the exported egg products (5 t dried yolks, 329 t dried egg (not yolks) and 3 t dried egg albumins). Liquid egg products totalled 56.5 t of the exported egg products (36.4 t liquid egg yolks, 16.2 t raw egg pulp (chicken and other) and 4.0 t of egg albumins). The FOB value of dried egg products was R7.46 million and the FOB value of liquid egg products was R1.74 million.

Hen egg exports (Gallus gallus domesticus; fresh and preserved/cooked and egg products) continue to operate from a low base, being only 2.3 % (9 606 t) of total egg production (415 242 t) in South Africa in 2017.

The main destinations for South African egg exports in 2017 were Mozambique (78.2 %), Swaziland (9.5 %), Lesotho (5.8 %), Zimbabwe (2.9 %), Namibia (2.0 %), Côte d’Ivoire (0.6 %), Botswana (0.3 %) and Rwanda (0.2 %).
**Egg imports**

Total imports of eggs, including shell eggs and egg products (liquid and dried), amounted to 484 tonnes in 2017; 267.4 tonnes more than in 2016 (+124%). Imports had a free-on-board value of R39.5 million. The egg product component accounted for all but 705 kg of the imports (preserved/cooked shell eggs) and dried egg product made up 483 tonnes of the total imports. The main countries of origin of egg imports were Italy (44.8%), France (33.4%), Denmark (19.6%) and Argentina (1.7%). Imports of eggs and egg products (484 tonnes) represented only 0.11% of total egg consumption (423 137 tonnes) in 2017.

### 5.8 Provincial distribution of layers on layer/layer breeder farms

In a recent Notifiable Avian Influenza (NAI) 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 9 gives the provincial distribution of layer farms (breeder, rearing and in-lay).

**Table 9: Provincial distribution of layers in South Africa**

<table>
<thead>
<tr>
<th>Province</th>
<th>Layer birds</th>
<th>% of total layer birds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Cape</td>
<td>909 783</td>
<td>3.6 %</td>
</tr>
<tr>
<td>Free State</td>
<td>3 608 677</td>
<td>14.2 %</td>
</tr>
<tr>
<td>Gauteng</td>
<td>6 444 855</td>
<td>25.3 %</td>
</tr>
<tr>
<td>KwaZulu-Natal</td>
<td>2 358 268</td>
<td>9.3 %</td>
</tr>
<tr>
<td>Limpopo</td>
<td>803 669</td>
<td>3.2 %</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>2 213 282</td>
<td>8.7 %</td>
</tr>
<tr>
<td>North West</td>
<td>2 661 557</td>
<td>10.5 %</td>
</tr>
<tr>
<td>N &amp; W Cape</td>
<td>6 423 408</td>
<td>25.3 %</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>25 423 499</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

A total of 199 farms reported in the NAI survey, of which 24 were layer breeder farms, 28 were layer rearing farms and 147 were commercial laying hen farms. We continue to try to improve the representation of producers in this survey for disease control and management purposes.

### 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. DAFF continued to work on a system
to regulate organic agricultural produce and pending amendments to the Agricultural Products Standards Act will allow for proper regulation of free-range production.

In February it was announced that the Agency for Food Safety and Quality (AFSQ) had been appointed by DAFF 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. The gazetted fee was 1.8 cents per dozen, and travel and laboratory costs were to be passed on to the farmer. Affected parties were given until 17 March 2017 to comment on the scheme.

At subsequent meetings between SAPA, AFSQ and egg producers, several objections were raised. Chief among these was the proposed fee, which was decreased to 1.2 cents per dozen – still considered by producers (who had proposed 0.72 cents per dozen) to be excessive. Other concerns were the billing system, lack of clarity on the frequency of inspections, inspection points, and the sampling protocol. AFSQ intended to charge for total annual production, not for the amount of eggs inspected or per inspection visit. SAPA requested that dispensation be granted by DAFF until such time that the issues were resolved.

On 19 May it was announced in a government gazette that the fees are to be R0.0006 per egg, that is, R0.0072 per dozen eggs produced or packed per month.

5.10 Challenges and prospects for the South African egg industry

With the drought easing in most regions of the country, stocks tight and egg prices still elevated, local egg producers move into 2018 with renewed optimism. Good rains in the maize-growing regions of the country will support another generous harvest in the coming season and the local soybean crop is predicted to break records. As winter approaches, producers will hope that there are no further outbreaks of HPAI in commercial flocks and that improved biosecurity reduces the risk of transmission from infected wild birds. Egg prices are expected to soften through the year as flocks are repopulated but should remain above 2017 prices, year-on-year. Producers continue to fight retailers for a fair share of the price consumers pay for eggs. There is concern that the rising margins applied to eggs by retailers are in danger of hindering demand for the product.

Besides avian influenza, egg producers in some regions still face challenges from lingering drought. In December 2017, dam levels in the worst hit provinces were as follows: Western Cape 33 % (down from 51 % y-on-y); Eastern Cape (61 % cf 59 % a year ago); and KwaZulu-Natal 47 % (cf 41 %). In Cape Town, “Day Zero” (the day the taps run dry; with dams at average of 13.5 %) is set to arrive in mid-May 2018. In its October 2017 Seasonal Climate Watch briefing, SAWS indicated the possibility of higher than average rainfall in the summer rainfall areas, associated with the El Niño Southern Oscillation (ENSO). This is expected to develop into a La Niña phase, albeit it a weak one, throughout the summer months to February 2018. The higher number of rainfall days will be associated with lower than normal temperatures in the summer rainfall regions. The south-western Cape faces a long, hot summer with almost no rainfall days in the long-term forecast.
With McDonald South Africa’s announcement that it will follow its parent company’s lead and “uncage the Egg McMuffin” in this country by 2025, the cage-free revolution and disposal of male chicks are no longer “horizon issues” for South African producers. The revolution has arrived on our shores and could have profound consequences for producers if they do not recognise, evaluate and respond to it effectively and in good time. The OIE’s drafting of a code of practice for the keeping of laying hens is also likely to impact local producers. Some local producers are already restructuring their businesses to take advantage of changes in the global industry.

Local demand for eggs dropped in 2017, because of egg shortages and consumer resistance to inflated egg prices (128 eggs per person per annum. Consumption should rebound in 2018 as prices drop but are expected to remain 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 357 per person per year (IEC). 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. South Africa’s consumption of eggs in 2016 (before the AI outbreak) was 32 % higher than in 2001; against a population increase of 23.4 % so consumption has increased slightly more than the population rate. 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, 318 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. As the egg industry begins to move into more profitable waters in 2018, now might be the time to look at how social media, egg printing, etc., could be used to reinforce in the public’s mind all that is good about eggs (selenium, vitamins A, B₁₂, D, riboflavin, folate, high quality protein, choline, etc.) and to further dispel any lingering cholesterol concerns and cultural egg-eating taboos.
6. BROILER INDUSTRY

6.1 Overview

The 2016/2017 maize crop was the biggest on record at 16.7 million tonnes. By August, broiler feed prices had dropped to levels last seen in 2013 and 2014, before the crippling drought struck. Average feed prices in 2017 were just 4.1% higher than feed prices back in 2014. Despite the relief this offered to hard-pressed broiler producers, the imbalance in supply and demand caused by excessive levels of poultry meat imports continues to place tremendous pressure on profit margins. Constrained consumer spending also weighs on poultry markets.

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 in this manner. 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. South African broiler operations can produce a whole slaughtered chicken for less than any EU country and at almost the same cost as the United States (US), despite their economies of scale, direct and indirect subsidies, and cheaper feed ingredients.

Although final anti-dumping duties of between 3.86% and 73.33% were gazetted in 1Q 2015 against imports from the UK, Netherlands and Germany, avian influenza outbreaks have been more effective in stemming imports from plants in these three countries. The industry made further representations to the International Trade Administration Commission (ITAC) in relation to EU bone-imports in July 2016. The industry pushed to have further safeguard measures put in place. In response to this application, ITAC issued a second essential facts letter which stated that South Africa is suffering a threat of serious disturbance from imports; that the main cause of the disturbance is from EU imports; and that exceptional circumstances exist. They imposed a safeguard tariff of 13.9% to correct the imbalances in December 2016. The 13.9% duty fell away on 3 July 2017 as this type of measure can only legally be in place for a maximum of 200 days. ITAC was due to make an announcement by the end of May on whether the safeguard should be retained and increased but had yet to do so by the end of the year. There is no doubt that a full investigation is being pursued by ITAC and, in August 2017, the Association of Meat Importers and Exporters (AMIE) announced that it had instituted a legal challenge to the continuation of the investigation. In the action, lodged against SAPA and the Minister of Trade, AMIE seek an order to set aside the ITAC’s decision to entertain SAPA’s application; based on technical arguments about the relationship between successive trade agreements (TDAC, followed by SADC-EU EPA). On the other hand, SAPA and the industry feel the safeguard tariff is too low and are working with ITAC to have it raised to the MFN (most favoured nation) tariff of 37%.

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, several large, integrated poultry businesses announced downscaling of their operations and, with this, associated retrenchments.
The Congress of South African Trade Unions (COSATU) voiced its concern over the looming retrenchments, and history was made when SAPA, integrated producer RCL Foods, the Food and Allied Workers Union (FAWU) and advocacy group FairPlay signed a pledge to work together to ensure the survival of the industry.

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. Nevertheless, in January 2017 RCL Foods closed 15 farms in KwaZulu-Natal and retrenched 1 350 employees, severely affecting the economy in the small town of Hammarsdale. Three hundred workers were relocated to other operations and RCL committed to paying for reskilling courses for other workers. Country Bird Holdings (CBH) announced it would be forced to shed 1 500 jobs in the few months thereafter, if business did not improve. Mike's Chickens in Limpopo had already been closed in 2016, putting about 1 000 staff members out of work. SAPA estimates that, over the past 5 years, between 4 000 and 5 000 people have lost their jobs because of the closure of 12 poultry farms. 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 unquestionably need an enabling environment in order to thrive. If the poultry industry were to collapse, it would have serious consequences for the maize and soya growers, along with the feed milling industry. The executive director of the Animal Feed Manufacturers Association (AFMA), De Wet Boshoff, urged government not to underestimate the benefits that halting poultry imports would have on the entire food and grain value chains, including fertiliser and seed suppliers, and storage and processing facilities.

On 1 February, about 500 disgruntled people, including representatives from industry, SAPA, FAWU and retrenched workers, marched on the EU Delegation in Pretoria to hand over a memorandum expressing their anger over cheap imports. In response, Ambassador Cornaro dismissed claims that the EU was dumping chicken and reiterated that the problems faced by our industry were due to internal issues. He cited a lack of competition, high feed and electricity prices, and brining as contributory factors. However, Minister in the Department of Trade and Industry, Rob Davies, has conceded that the industry is in distress. Despite his claims that the government is tackling the issue on several levels, the response to the crisis has been slow.

In February, SAPA CEO Kevin Lovell appeared before parliament’s Portfolio Committee on Agriculture, Forestry and Fisheries to report on the extent of dumping. FAWU general secretary Katishi Masemola represented the interests of workers. Minister Davies reiterated his support for the poultry industry, confirming that it needs protection, including anti-dumping measures, provided trade rules were not broken. Garth Strachan, deputy director general of the Department of Trade and Industry, said the industry needs to commit to improving its competitiveness through investment in technology. He confirmed that government was reviewing policy measures and trade agreements. The DTI has stated its intention to launch agro-processing incentive programmes to improve production, operating systems and levels of management. In March, South Africa's deputy president, Cyril Ramaphosa, gave assurances that government would deploy incentives and other
support measures to protect the industry, save jobs and ensure food security. He said government would also vigorously defend the industry against dumping and unfair trade practices within the rules of the World Trade Organization and our economic partnership agreements.

In the continued absence of firmer government protection, Country Bird Holdings announced in March that it would be closing one of its abattoirs in the North West province. On 17 March, COSATU marched to the Free State provincial offices in Bloemfontein to appeal to the local authorities to prevent unmarked chicken from being sold in shops. The Select Committee on Trade and International Relations, which falls under the National Council of Provinces, urged the DTI to deal speedily with the challenges facing the industry. Chairperson Eddie Makue encouraged the industry to work on transformation and explore export opportunities. He also expressed concern about the large retail mark-up on chicken products.

On 23 March, SAPA and AMIE made presentations to parliament’s Portfolio Committee on Trade and Industry, in a heated debate. Kevin Lovell lamented the jobs that had been shed in the poultry sector in the past few years, while AMIE finally agreed that dumping was occurring. Garth Strachan pointed out that there is an opportunity to produce mechanically deboned meat (MDM) in South Africa. The committee was angered in May when four major retailers failed to attend a meeting where they were expected to provide insight into their pricing and mark-up policies. AFMA and the EU also made presentations to the committee.

The EU’s executive arm denied it was dumping chicken and accused the local industry of suffering from structural problems that affect its competitiveness. It blamed 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 additional 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’ confirms that EU chicken exports are undermining efforts to develop local production in an increasing number of sub-Saharan African countries. In the article, he discusses 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 has been in the form of frozen imports (at 44% in 2014). Local industries have not enjoyed 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 need only exceed the cost of transportation minus the cost of alternative disposal methods (rendering/incineration, etc.) to make exportation financially viable. Importantly, Goodison states 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. Goodison recommends that the EU needs to:

- Get to grips with policy coherence issues in poultry sector trade with sub-Saharan Africa;
- Apply the concept of a ‘right to development’;
- Be flexible in its application of EPA commitments;
- Structure trade to support local efforts; and
- Promote a code of conduct for responsible trade in poultry portions.

In conjunction with the University of Johannesburg, FairPlay held a summit in August bringing together non-government organisations and business to devise a plan. A ‘cry for action’ petition was signed by more than 8 000 poultry employees and retrenched workers, and afterwards delivered to President Jacob Zuma and Minister Davies.

The government task team gathered information on the structure of the industry, import penetration, cost drivers, competitiveness and transformation. Its aim was to study the value chain as a whole. Various work streams were established but it is regrettable that, to date, very little progress has been made. The reduction in imports seen in 2H 2016 and 2017 is simply because of AI-related trade bans against a large number of EU countries; not because of any measures applied by the South African government to protect its farmers from illegal dumping – and not because the EU has recognised the illegality of these exports and limited the practice. As soon as the AI-related trade bans are lifted, EU imports will again flood into the country.

In other trade matters, SAPA, RCL Foods and Afgri Poultry had lodged an application in October 2016 to initiate a sunset review of anti-dumping duties on US bone-in imports. These anti-dumping duties were due to expire on 4 April 2017. On 24 March ITAC launched the inquiry and invited interested parties to comment. After reviewing all comments, ITAC found that the expiry of the anti-dumping duties was likely to lead to the recurrence of dumping and of material injury to the broiler industry. ITAC therefore made a final recommendation to maintain the anti-dumping duties at 940 cents/kg for selected tariff codes.

The import tariffs agreed on in 2013 are also up for review with 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 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.

The news that dominated the poultry industry in the second half of the year, and undoubtedly distracted government from trade issues, was the countrywide highly pathogenic avian influenza (HPAI) outbreaks. The first confirmed case was on a broiler breeder farm in Mpumalanga in June and subsequently the virus spread rapidly in northern and southern clusters. Although the HPAI virus caused more damage to the egg industry, (perhaps because of lower biosecurity standards than commonly applied in the broiler industry), broiler producers were advised to review their biosecurity measures. An estimated 700 000 broiler breeder birds died or were culled. Consumers were assured that the chicken meat found in supermarkets was safe to eat because of meat inspection procedures at abattoirs. Fast food chain KFC experienced a shortage of chicken wings as a result of the AI outbreak.

Requests were made to DAFF to be allowed to import fertile hatching eggs to make up for the shortfall and the fertile egg importation protocol was approved by DAFF in October. Ireland has been confirmed as a source of hatching eggs, and the USA will be an alternative source once the necessary health certificate is awarded.

6.2 Turnover

The gross value of primary agricultural production from poultry meat (inclusive of all types of poultry) for the period 2017 was R40.04 billion, reflecting an annual decrease of 20.1 % (source: DAFF).

Poultry meat production is the largest product sector in agriculture in South Africa, ahead of all other animal sectors (beef production (R36.6 billion), milk (R17.5 billion) and eggs (R10.8 billion)) and ahead of all field crop and horticultural sectors. The maize sector, for example, had a gross value of R29.8 billion and deciduous and citrus fruit were valued at R19.0 and R19.2 billion, respectively. Poultry meat’s share of the gross value of all agricultural production was 15.9 %, and of all animal products 32.1 %.

6.3 Production

A total of 927.1 million broilers were produced for slaughter in 2017; 8.4 million (- 0.9 %) less than in 2016 (Table 10).

Based on the number of day-old parent pullets placed to December 2017, the size of the breeder flock is expected to decrease by 9.8 % to 6.23 million during the first four months of 2018. The forecasting model predicts a potential production of broilers to July 2018 of 19.27 million per week.

These figures do not take exports into account, nor the possibility that some fertile eggs may not be incubated as the industry attempts to adjust to the oversupply situation.
### Table 10: Summary of key results: broiler production

<table>
<thead>
<tr>
<th>Forecast period</th>
<th>Day-old parent pullets placed</th>
<th>Breeder hens</th>
<th>Broiler chicks placed</th>
<th>Broilers slaughtered (based on actual chicks)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>/year</td>
<td>average</td>
<td>/year</td>
<td>1000/year</td>
</tr>
<tr>
<td>2016</td>
<td>9 302 492</td>
<td>7 095 720</td>
<td>991 136 544</td>
<td>935 572 025</td>
</tr>
<tr>
<td>2017</td>
<td>8 828 675</td>
<td>6 491 043</td>
<td>988 681 466</td>
<td>927 147 249</td>
</tr>
<tr>
<td>Change</td>
<td>-473 817</td>
<td>-604 676</td>
<td>-2 455 078</td>
<td>-8 424 776</td>
</tr>
<tr>
<td>% change</td>
<td>-5.1</td>
<td>-8.5</td>
<td>-0.25</td>
<td>-0.9</td>
</tr>
</tbody>
</table>

### 6.4 Feed usage and cost

In 2017, approximately 3.28 m tonnes of feed were used by the broiler industry. Approximately 2.8 m tonnes of feed were used to grow broilers while the remaining 493 363 tonnes were used in the broiler breeder industry.

The feed usage for broiler breeders and broilers is summarised in Table 11 below.

### Table 11: Feed usage for broiler breeders and broilers in 2017 (tonnes)

<table>
<thead>
<tr>
<th></th>
<th>Broiler parents</th>
<th>Total broiler breeding stock</th>
<th>Broiler production</th>
<th>Broiler industry</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>rearing per annum</td>
<td>laying per annum</td>
<td>per annum</td>
<td>per week</td>
</tr>
<tr>
<td>2016</td>
<td>99 429</td>
<td>441 664</td>
<td>541 073</td>
<td>10 348</td>
</tr>
<tr>
<td>2017</td>
<td>90 332</td>
<td>403 032</td>
<td>493 363</td>
<td>9 462</td>
</tr>
<tr>
<td>Change</td>
<td>-9 098</td>
<td>-38 612</td>
<td>-47 710</td>
<td>-887</td>
</tr>
<tr>
<td>%</td>
<td>-9.15</td>
<td>-8.74</td>
<td>-8.8</td>
<td>-8.57</td>
</tr>
</tbody>
</table>

According to the Animal Feed Manufacturers Association (AFMA), national feed sales for broilers from 1 January to 31 December 2017 amounted to 2 569 420 tonnes (- 5.3 %) and, for breeders, 470 290 tonnes (- 0.84 %). These figures exclude non-members of AFMA.

The average broiler feed price indicator for 2017 was R5 016 per tonne; a decrease of 10.5 % in comparison with 2016. This followed year-on-year increases of 5.2 %, 2.2 % and 13.5 % in 2014, 2015 and 2016, respectively. The broiler feed price includes distribution, but excludes medication, additives and VAT. The movement in the index feed price is shown in Figure 20.
"Better together as partners"
Small footprint. Big impact.

Figure 20. Broiler feed price indicator (average across feed phases) from 2011

Figure 21. Year-on-year percentage change in broiler feed price and producer price on a yearly basis
The year-on-year percentage changes in broiler feed price and chicken price are shown in Figure 21, above. The graph clearly indicates why margins were under enormous pressure during 2012. From January 2011 to July 2013, feed prices escalated year-on-year, with particularly high increases during most of 2012. The graph shows that percentage year-on-year increases in broiler producer prices during this period were not as high as the year-on-year feed price increases, which would have impacted negatively on profit levels in the industry.

Only from January 2013 have producers been able to maintain some level of year-on-year increase in the broiler producer price, even when feed prices are rising (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 again for broiler producers from August 2015, with annual increases in feed prices outstripping annual 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 have 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, while year-on-year changes in producer prices have climbed steadily, exceeding + 15 % for several months of the year.

### 6.5 Consumption

**Poultry consumption**

According to DAFF estimates for 2017, total production of poultry meat (including turkey, ducks, geese and guinea fowl) was 1.688 million tonnes whereas consumption (including backyard consumption) amounted to 2.215 million tonnes (+ 0.7 %). The per capita consumption of poultry meat for 2017 was 38.89 kg per annum, down 0.4 % from 39.04 in 2016 (Figure 22).

DAFF based its calculations on its own estimates of production data. DAFF also uses trade statistics from a source other than the South African Revenue Service (SARS). DAFF’s estimate of poultry meat consumption is 2.9 % larger than SAPA’s estimate. According to SAPA’s calculations, poultry consumption amounted to 2.152 million tonnes. The per capita consumption of poultry meat for 2017 was 38.08 kg, compared to 38.88 kg in 2016 (- 2.1%). 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 chicken around the world, according to OECD-FAO data for 2017, is shown in Figure 23.

**Chicken consumption**

Chicken production, including subsistence farming and depleted breeders in the broiler and egg industries, was 1.657 million tonnes (99.9 % of total poultry production). Consumption of chicken meat amounted to 2.122 million tonnes in 2017. The per capita consumption of chicken meat for 2017 was 37.55 kg per annum, down 2.2 % from 38.38 kg in 2016 (source: SAPA).
Figure 22. Per capita consumption of poultry meat in South Africa from 2010

Figure 23. Approximate per capita consumption (kg) of poultry meat worldwide (OECD-FAO Agricultural Outlook 2017)
6.6 Trade

South Africa is among the most unprotected markets in the world. Exporters such as Brazil and the EU taking 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 tariffs of between R4.40 and R15.15 per kg on poultry imports (at exchange rate of R14.18: 1€), and 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 %). 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 and therefore there was, in effect, almost no duty raised on bone-in portions. In 2017, only 21.9 % of imported bone-in portions came from the EU (because of AI-related trade bans against EU nations), 33.5 % came from Brazil and 33.5 % came from the US. At least duties would have been payable on some of these imports.

Tariffs have no direct effect on the price of local chicken. The average 2017 producer price of chicken was lower, in real terms, than it was in the previous two years.

Annual broiler imports

According to the audited figures of SARS (verified), the annual broiler imports for 2017 totalled 524 259 tonnes; only a 0.8 % decrease on 2016 levels despite anti-dumping duties in place against imports from the UK, the Netherlands and Germany, and despite many EU nations suffering from outbreaks of avian influenza at times throughout the year. Despite the slight annual decrease in broiler imports, 2017 levels are still 25 % higher than the 5-year average (2012 – 2016).

Broiler imports represent 94.1 % of the total poultry products imported (556 877 t; includes turkey, ducks, geese and guinea fowl). Turkey imports in 2017 amounted to 31 428 t (5.8 % of total poultry imports). The broiler imports for 2017 had a free on board (FOB) value of R5.92 billion (+ 18.2 %).

Frozen broiler meat imports

Of the total broiler meat imported through 2017, 99.84 % was frozen (523 428 t). Frozen broiler meat imports decreased by 0.9 % in 2017 over levels imported during 2016 (528 108 t). Broiler imports contributed 24.7 % of broiler consumption in South Africa in 2017; from 24.7 % in 2016. If frozen mechanically deboned meat (MDM) imports are excluded, then broiler imports contributed 15.2 % of broiler consumption; from 15.6 % in 2016.

Leaving MDM out of the calculation ignores the effect that 201 795 tonnes of chicken entering the market at R6.76/kg has on overall pricing.
Mechanically deboned meat (MDM) contributed 38.6 % to frozen broiler meat imports (201 795 t), while bone-in broiler portion imports contributed 44.5 % (233 046 t); whole broilers 1.8 %; carcasses 2.7 %; boneless portions 4.2 %; and offal 8.2 %.

Annual imports of frozen mechanically deboned meat (MDM), frozen whole chickens and frozen bone-in portions are given in Figures 25 (a) to 22 (c); illustrating the increase in importation of MDM and frozen bone-in portions and a three-year, substantial increase in the importation of whole frozen chickens.

**Origin of imports**

The origin of imports has changed over the past decade, with a significant increase in tonnages from the European Union, which enjoys a free trade agreement with South Africa. However, because avian influenza-related trade bans were in place against several EU countries at intervals through 2017, Brazil has remained the main country of origin of South African broiler imports. Brazil accounted for 61.3 % (from 41.3 % in 2016), or 321 463 t, of total broiler imports into the country in 2017; up 47.2 % on 2016.
Figure 25. Annual imports of mechanically deboned meat (MDM), whole frozen chickens and frozen bone-in portions
The US was the second largest importer into the country in 2017, with 15.7% or 87,059 t. Argentina and Canada increased exports to South Africa to account for 6.3% (32,816 t) and 1.0% (5,455 t) of 2017 broiler imports, respectively. Of the EU exporters, only Ireland, Belgium, Denmark and Spain exported significant quantities to South Africa in 2017: 24,094 t (4.6%), 23,451 t (4.5%), 16,858 t (3.2%) and 10,520 t (2.0%), respectively. Thailand exported 3,858 t to South Africa in 2017 (0.7% of total imports). All other importing countries contributed only 0.7% to imports of poultry into South Africa in 2017 (Figure 26).

If the EU countries are considered as a single entity, 14.6% of broiler imports entered SA through the EU in 2017, compared to 49.6% in 2016 and 42.6% in 2015. In tonnage terms, a total of 76,539 t of broiler meat was imported from the EU in 2017, compared to only 262,352 t last year and only 4,139 t in 2009. Broiler imports from the EU declined by 70.8% between 2016 and 2017 (~185,833 t). This drop in 2017 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 the EU exported more to the Ukraine, Hong Kong, Ghana, the Philippines and Saudi Arabia.
The EU has been, for at least the last five years, the major supplier of bone-in portion imports into South Africa (Figure 27) but this year outbreaks of HPAI have eroded EU market share, from 81.1 % in 2016 to just 24.5 % in 2017. Belgium (9.5 %), Denmark (5.8 %) and Ireland (6.6 %) were 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 33.5 % in 2017. Similarly, the US increased its share from 9.2 % in 2016 to 33.5 % in 2017. The Argentinians also increased exports of bone-in portions to South Africa in 2017, claiming 6.2 % of the market against 1.2 % in 2016. Brazil remains the biggest exporter of mechanically deboned broiler meat to South Africa; accounting for 97.3 % of MDM imports in 2017.

The main product imported from the EU in 2017 was frozen bone-in portions, accounting for 73.3 % of total poultry imports from the Union and 74.6 % of broiler imports. This was followed by frozen carcasses, whole frozen chicken and mechanically deboned meat (MDM) at 13.1 %, 7.9 % and 2.3 %, respectively. The main product imported from Brazil was mechanically deboned meat (58.2 % of Brazilian poultry imports; 61.1 % of broiler imports); down from 80 % in 2016. Bone-in chicken portions made up 23.1 % of Brazilian poultry imports in 2017; along with offal at 4.6 % and boneless chicken portions at 4.4 %. Frozen bone-in portions made up 89.6 % of total US poultry imports in 2017 (94.7 % of broiler imports).
Value of imports

The value of broiler imports into South Africa amounted to R5.923 billion at the free on board (FOB) level in 2017; a 18.0 % increase over 2016. Frozen bone-in portions were imported at an FOB value of R3.297 billion (55.7 % of total) and frozen MDM at R1.364 billion (23.0 %). The value of total poultry imports into South Africa, including broilers, turkeys, geese, ducks and guinea fowl totalled R6.44 billion, a 17.5 % increase in comparison with the value of total poultry imports for 2016.

Poultry exports

A total of 62 842 tonnes of poultry products (chicken, turkey, ducks, geese and guinea fowl) were exported at an FOB value of R 1.345 billion during 2017. This is a decrease of 15.1 % over 2016 tonnages. This is likely a result of trade bans put in place by neighbouring countries and other nations as a consequence of the HPAI outbreak in 2H 2017.

Chicken exports accounted for 94.3 % of total poultry exports in 2017 (59 240 t), and 92.4 % of the rand value (FOB; R1.24 billion) of total poultry exports. Turkey exports totalled 1 692 t in 2017; geese exports 914 t; duck exports 175 t; guinea fowl 1.1 t and mixed product (ducks, geese or guinea fowl; not specified) 820 t.

Of the total 62 842 t of poultry exports, 42 786 t were frozen products (including 13 358 t of frozen bone-in portions; 12 030 t MDM and 7 997 t of whole frozen chicken); and 17 179 t were fresh poultry products (including 15 741 t of fresh chicken cuts and offal). There were also 2 875 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 18 839 t (31.8 %), Mozambique at 16 782 t (28.3 %), Namibia at 12 860 t (21.7 %), Botswana at 3 194 t (%.4 %), Zimbabwe at 1 623 t (2.7 %), Swaziland at 1 509 t (2.5 %), Zambia at 1 016 t (1.7 %) and the DRC at 840 t (1.4 %) of the 62 842 total tonnes exported.

6.7 Provincial distribution of broiler farms

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

Table 12 gives the provincial distribution of broiler farms (breeder and rearing).

A total of 545 farms reported in the NAI survey, of which 121 were broiler breeder farms and 424 were broiler rearing farms.
Table 12: Provincial distribution of broiler chickens in South Africa

<table>
<thead>
<tr>
<th>Province</th>
<th>Broiler birds</th>
<th>% of total broiler birds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Cape</td>
<td>7 508 361</td>
<td>7.2 %</td>
</tr>
<tr>
<td>Free State</td>
<td>6 943 844</td>
<td>6.7 %</td>
</tr>
<tr>
<td>Gauteng</td>
<td>11 104 107</td>
<td>10.7 %</td>
</tr>
<tr>
<td>KwaZulu-Natal</td>
<td>6 696 594</td>
<td>6.4 %</td>
</tr>
<tr>
<td>Limpopo</td>
<td>2 343 780</td>
<td>2.3 %</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>23 265 311</td>
<td>22.4 %</td>
</tr>
<tr>
<td>North West</td>
<td>24 286 311</td>
<td>23.4 %</td>
</tr>
<tr>
<td>N &amp; W Cape</td>
<td>21 746 385</td>
<td>20.9 %</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td><strong>103 894 738</strong></td>
<td><strong>100 %</strong></td>
</tr>
</tbody>
</table>

6.8 Performance efficiency

Feed conversion ratio (FCR) and performance efficiency factor (PEF) values will depend on the management of each enterprise. However, top South African broiler farms are capable of achieving FCR figures of around 1.55 and PEF figures of around 351. Average slaughter age is now 33 – 34 days at a weight of 1.85 kg.

6.9 Challenges and prospects

Good rains in the maize-growing regions of the country will support a second bumper post-drought harvest in the 2017/2018 season and with healthy global stock-to-use ratios for maize and soybean, market conditions should support a return to profitability and growth in 2018. However, much will depend on how successful the industry is in convincing Government to protect local producers and jobs from dumping of frozen chicken products by the EU, the US and Brazil. In addition to the challenges presented by imports and a sluggish economy, there remains the threat of further outbreaks of highly pathogenic avian influenza as the winter months approach. The role of vaccination in controlling HPAI will continue to be debated. Government will have to design effective compensation models which encourage farmers to quickly report suspected cases of HPAI without fear of crippling financial losses when birds are culled.

Poultry producers have been urged to look for export opportunities for white breast meat because a key part of the government-led task team findings was that we become significant exporters 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. This year, exports decreased by 15.6 % because of AI-related trade restrictions in 2H 2017. 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. The minister of the Department of Agriculture, Forestry and Fisheries
(DAFF), Senzeni Zokwana, confirmed that market-access requests had been sent to the EU, the Gulf countries, Angola, Kenya, Swaziland, Tanzania, Uganda, Hong Kong and Singapore. The EU had reservations about whether South Africa’s state veterinary services were sufficiently equipped in all provinces to guarantee sanitary and phyto-sanitary standards. 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. Export to African neighbours is limited since, as developing economies, these countries protect their local producers. 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 DAFF, in order to allow competition in international markets.

The DTI launched an agro-processing support scheme, with a budget of one billion rand, to stimulate investment in the local economy by agribusinesses. Applicants need to demonstrate that the grant will be used to increase capacity, create employment, modernise machinery and equipment, improve competitiveness and productivity, and broaden participation. An ideal opportunity exists for a black empowerment group to invest in equipment to produce MDM. In addition, government institutions were instructed to procure poultry meat products from domestic producers.

It is hoped 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. The DTI claimed in March 2017 to have invoked this regulation to help support local poultry producers.
7. SMALL-SCALE POULTRY FARMERS

7.1 Overview

Emerging and contract broiler farmers contribute perhaps 2% of 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 (see Chapters 10.3 and 12.2 for more information).

7.2 Small-scale poultry 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 28 shows the distribution of survey respondents in South Africa for the period October to December 2017.

The most common challenges facing respondents in the 4Q 2017 were difficulty sourcing reasonably priced day-old chicks due to the shortage caused by HPAI, and the high feed, electricity and transport costs. Unstable or poor markets force small farmers to give birds to customers on credit, with non-payment of these accounts common. Smaller farmers struggle for market share due to the high level of imports. Further difficulties experienced are given below:

- Poor condition of facilities and insufficient equipment to raise the chicks;
- Theft of stock and damage to structures;
- High mortality due to the hotter weather;
• Unable to source funding to expand the business or renovate poultry buildings;
• Struggling with electricity supply, or no access to electricity at all (alternatives are costly);
• Poor growth of the birds and unable to afford vaccines;
• Late feed deliveries;
• Food safety audits;
• Lack of training on how to raise chicks;
• Poor water supply;
• Struggling to find reliable transport to collect the day-old chicks and feed;
• Vermin infestation;
• High cost of processing birds at the abattoir; and
• Battling to locate an abattoir nearby and a place to buy good quality chicks, medication or feed.

Despite these difficulties and lack of profitability, many respondents want to expand their businesses.

Figure 28. Distribution of survey respondents (October to December 2017); excluding contract growers
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 29 depicts the distribution of small broiler producers in South Africa in 2017. The survey results are summarised in the tables below.

A large number of broiler producers exited the market in the third quarter of 2017, as the HPAI outbreak reduced breeder flocks and availability of day-old chicks (Table 13).

Table 13: Small broiler producers: survey respondents and business activity in 2017

<table>
<thead>
<tr>
<th>Period</th>
<th>Small commercial broiler farmers 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1 2017</td>
</tr>
<tr>
<td>Number of respondents</td>
<td>231</td>
</tr>
<tr>
<td>Completed questionnaires</td>
<td>192</td>
</tr>
<tr>
<td>Number that stopped farming</td>
<td>39</td>
</tr>
<tr>
<td>Number that resumed farming</td>
<td>17</td>
</tr>
</tbody>
</table>
The average costs of inputs paid by survey respondents, for the four quarters of 2017, are shown in Table 14 below. Prices exclude VAT and delivery. Where possible, prices paid by commercial farmers are shown in italics. 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.

Table 14: The average input costs of survey respondents in 2015: broiler producers

<table>
<thead>
<tr>
<th>Input costs</th>
<th>Q1 2017</th>
<th>Q2 2017</th>
<th>Q3 2017</th>
<th>Q4 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day-old chicks (R/bird)</td>
<td>6.63</td>
<td>6.78</td>
<td>6.95</td>
<td>6.91</td>
</tr>
<tr>
<td>Broiler starter (R/t)</td>
<td>6 714</td>
<td>6 545</td>
<td>6 161</td>
<td>6 022</td>
</tr>
<tr>
<td>Broiler grower (R/t)</td>
<td>6 388</td>
<td>6 301</td>
<td>5 827</td>
<td>5 709</td>
</tr>
<tr>
<td>Broiler finisher (R/t)</td>
<td>6 234</td>
<td>6 023</td>
<td>5 666</td>
<td>5 518</td>
</tr>
<tr>
<td>Av. commercial broiler feed (R/t)</td>
<td>5 560</td>
<td>5 022</td>
<td>4 705</td>
<td>4 778</td>
</tr>
</tbody>
</table>

Figure 30 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. There is a noticeable difference between small-scale and commercial feed prices. Expressed as percentages, these differences are + 7 %, + 24 %, + 24 % and + 19 % for the four consecutive quarters. Large broiler producers generally qualify for volume discounts which give them a substantial advantage.
Production volumes and selling prices for 4Q 2017 are summarised in Table 15 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 R5.05 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 15: Production volume and selling prices of survey respondents in 4Q 2017: broilers

<table>
<thead>
<tr>
<th>Period</th>
<th>Q4 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live sales volume (birds)</td>
<td>1 023 453</td>
</tr>
<tr>
<td>Average price (R/bird)</td>
<td>50.58</td>
</tr>
<tr>
<td>Live sales as a % of total sales</td>
<td>90.5</td>
</tr>
<tr>
<td>Slaughtered volume</td>
<td>101 855</td>
</tr>
<tr>
<td>Average price (R/kg)</td>
<td></td>
</tr>
<tr>
<td>Small-scale</td>
<td>33.84 (or R62.73/bird)</td>
</tr>
<tr>
<td>Commercial</td>
<td>21.45 (NSV)</td>
</tr>
</tbody>
</table>

The estimated margin over feed cost for abattoir-slaughtered birds, for small-scale and commercial producers, is shown in Figure 31.

Figure 31. Estimated margin over feed cost per quarter (broilers) for small-scale and commercial farmers.
In doing the calculation for margin over feed cost, 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).

As seen in Figure 31, the small-scale broiler farmers enjoy a substantially larger margin than commercial farmers, despite their higher feed prices, because of their inflated selling price. However, compared with margins over feed cost of over R30/bird back in 2014, it can be seen that feed costs and perhaps constrained bird prices are starting to reduce margins for smaller farmers.

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 16). A smallholder egg farmer is defined as a person producing less than, or equal to, 20 000 eggs per day, that is, 1 667 dozen per day.

![Figure 32. Distribution of surveyed small-scale egg producers 4Q 2017](image)
Figure 32, above, 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.

### Table 16: Survey respondents and business activity in 2017: small-scale egg producers

<table>
<thead>
<tr>
<th>Period</th>
<th>Surveyed small-scale egg producers 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1 2017</td>
</tr>
<tr>
<td>Number of respondents</td>
<td>90</td>
</tr>
<tr>
<td>Completed questionnaires</td>
<td>73</td>
</tr>
<tr>
<td>Number that stopped farming</td>
<td>17</td>
</tr>
<tr>
<td>Number that resumed farming</td>
<td>3</td>
</tr>
</tbody>
</table>

The cost of inputs is summarised in Table 17 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.

### Table 17: The average input costs of small-scale survey respondents in 2017: eggs

<table>
<thead>
<tr>
<th>Period</th>
<th>Input costs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1 2017</td>
</tr>
<tr>
<td>Day-old pullet (R/bird)</td>
<td>8.08</td>
</tr>
<tr>
<td>Point-of-lay pullet (R/bird)</td>
<td>56.50</td>
</tr>
<tr>
<td>Laying mash (R/tonne)</td>
<td>4 422</td>
</tr>
<tr>
<td>Small-scale</td>
<td>3 971</td>
</tr>
</tbody>
</table>

The feed price in R/kg for the four quarters of 2017 is shown in Figure 33. 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 +11 %, +52 %, +20 % and +48 % for the four consecutive quarters.
Bird numbers and egg production are shown below (Table 18). 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, or access to credit. Smaller producers may also find it hard to source point-of-lay pullets or the ability to market larger numbers of birds effectively.

Table 18: *Pullet and hen numbers: Small-scale layer farmers 2017*

<table>
<thead>
<tr>
<th>Period</th>
<th>Pullet and hen numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1 2017</td>
</tr>
<tr>
<td>Number of pullets being reared</td>
<td>16 734</td>
</tr>
<tr>
<td>Number of laying hens</td>
<td>135 167</td>
</tr>
<tr>
<td>Farm capacity</td>
<td>322 580</td>
</tr>
<tr>
<td>%</td>
<td>42</td>
</tr>
</tbody>
</table>

Average selling prices and the estimated margin over feed cost are given below (Table 19). The average prices obtained by commercial egg producers are shown in italics (source: SAPA survey, published in *Monthly Egg Price Report*).

Figure 34 shows the average price for eggs for the four quarters of 2017. Small-scale producers generally sell their eggs at a much higher price than commercial producers. Expressed as percentages, these price differences are +3.8 %, +6.1 %, 4.7 % and 15.7 % for the four consecutive
quarters. Because the small producer generally sells ungraded eggs in 30-egg trays, there is no grading cost and the packaging material cost is lower.

Table 19: Average selling prices and margin over feed cost: small-scale layer farmers 2017

<table>
<thead>
<tr>
<th>Period</th>
<th>Average selling prices and margin over feed cost</th>
<th>Q1 2017</th>
<th>Q2 2017</th>
<th>Q3 2017</th>
<th>Q4 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egg price (R/doz)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-scale</td>
<td></td>
<td>12.93</td>
<td>13.42</td>
<td>14.44</td>
<td>15.13</td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td>13.42</td>
<td>14.24</td>
<td>15.12</td>
<td>17.50</td>
</tr>
<tr>
<td>Cull price (R/hen)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-scale</td>
<td></td>
<td>35.90</td>
<td>33.89</td>
<td>37.63</td>
<td>38.23</td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td>25.21</td>
<td>29.67</td>
<td>28.42</td>
<td>33.03</td>
</tr>
<tr>
<td>Feed cost (R/doz)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-scale</td>
<td></td>
<td>7.18</td>
<td>8.79</td>
<td>8.30</td>
<td>7.46</td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td>6.45</td>
<td>5.79</td>
<td>6.94</td>
<td>5.03</td>
</tr>
<tr>
<td>Margin over feed cost (R/doz)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small-scale</td>
<td></td>
<td>5.75</td>
<td>4.63</td>
<td>6.14</td>
<td>7.67</td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td>6.85</td>
<td>8.45</td>
<td>8.18</td>
<td>12.47</td>
</tr>
</tbody>
</table>

Figure 34. Average producer price per quarter, for small-scale and commercial farmers
The cull hen price obtained at the end of the laying cycle puts the DPFO members in a strong position to purchase new point-of-lays. However, the cost of point-of-lays increased by 7.7% in 2017 but cull prices have risen by only 2.8%. In 2016, the average cull price of R35.43/hen was 62% of the average point-of-lay price (R57.10). In 2017, the average cull price of R36.41/hen was 59% of the average point-of-lay price (R61.49).

In the above table, the estimated feed cost in rand per dozen is a calculation based on the feed price (R/kg) and on the assumption that the hens are eating 115 grammes per day and are laying at a rate of 85%. In the fourth quarter, for every one-dozen eggs produced it cost the small-scale farmer R7.46 in feed (compared to R8.96 in 4Q 2016).

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:

R15.13/doz – R7.46/doz = R7.67/doz (compared to R3.89 in 4Q 2016)

Figure 35 shows the quarterly margin over feed cost for commercial and small-scale farmers.

![Margin over feed cost 2017](image)

**Figure 35.** Average margin over feed cost per quarter, for small-scale farmers (laying hens)

In 2014, small-scale egg producers had a much better margin over feed cost than commercial farmers, despite paying a higher price for feed. This was because they were often selling their eggs directly to the end user or to the informal market. Large commercial producers selling to the formal market pay substantial rebates to the retailers. In 2016, with feed prices escalating and less money in consumers’ pockets, small-scale farmers realised lower margins, below those realised by
commercial producers. In 2017, small scale farmers realised only slightly better egg prices than commercial producers whilst paying, on average, 31% more for feed. Thus, their margins over feed cost were below commercial producers this year. In the 4Q 2017, when egg shortages were being felt across the country, commercial producers benefitted disproportionately from higher prices and much lower feed costs, and the margin over feed cost was much higher for commercial farmers in this quarter as a result.

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.

**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.

Note that all of the statistical reports produced by SAPA are available on the SAPA website. If the way in which information presented does not meet the needs of SAPA members, contact our data collection team at Silverpath Consulting (cynthia@silverpath.co.za) and we will make the necessary changes to reports.

### 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 10.3 and a report on the activities of this Committee can be found in Chapter 12.2.
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 straightforward. Specific markets are needed for smaller new entrants that will allow these 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 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 have 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 as a means 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 (such as *Salmonella enteritidis*), HPAI and any other low pathogenic AI infections.

Funded, until recently, funded and managed 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 DAFF 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, Forestry and Fisheries: 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 2017

Notifiable Avian Influenza (NAI)

On 19 June 2017, an outbreak of HPAI (H5N8) was reported in Mpumalanga. To improve epidemiological capacity, a disease-tracking database and website were quickly developed, allowing members to track the HPAI 2017 outbreak in near real time.

Attempting to contain the disease at the start of the outbreak, DAFF announced a ban on the sale of live chickens. However, this ban impacted negatively on traders and a compromise had to be reached.

To provide the desired disease management outcomes and improve traceability, whilst still allowing
businesses to continue with their operations, the sellers of live chickens (including commercial farmers and traders who buy and resell chickens) were required to register with the PDMA. Farmers could only sell live chickens certified as healthy by a veterinarian or animal health technician, and live bird traders were required to send monthly reconciliations of their purchases to the PDMA for the traceability of movement of sold birds.

Over 3,000 live bird traders registered with the PDMA. Registrations, monthly reconciliations and signed health permits from veterinarians and farmers are dealt with on a daily basis by the PDMA. The Agency was tasked with developing a database of poultry producers and registered cull bird traders, and keeping records of all transactions involving the sale of live birds off the farm. As with the disease-tracking website, the live bird movement database is being improved to allow for movement analysis across the country.

With fears of the disease spreading, SAPA, DAFF and agricultural organisations undertook to inform commercial poultry producers and backyard farmers of the need for heightened biosecurity measures. The general public was asked to be on the alert for sick or dead wild birds and DAFF imposed a countrywide ban on the sale of live hens. Zimbabwe, Namibia, Zambia, Botswana and Mozambique suspended poultry imports from South Africa. DAFF urged the country’s trade partners to continue accepting poultry exports from registered compartments.

Despite control measures, further outbreaks occurred in farmed birds in Gauteng, Mpumalanga, the Western Cape, KwaZulu-Natal, North West, the Free State and the Eastern Cape, with the commercial layer sector the worst hit. There were calls for a vaccine to be made available, but experts agreed that it would not be in the long-term interests of poultry producers or the country. Vaccination can potentially create an endemic situation, affecting surveillance efforts and export certification. Vaccinated birds can still become infected and transmit the disease, but the symptoms are masked. Vaccination also has unfavourable trade implications, as some countries do not accept exports from a country that cannot produce an HPAI-free certificate.

The Western Cape suffered the greatest losses, with its population of 28 million chickens at risk of decimation. By mid-September, 17 chicken farms in the province had been confirmed as being infected with HPAI, 46 ostrich farms were under quarantine, and more than a million birds had died or been culled. Chicken traders were affected by a shortage of healthy cull birds in some areas. By the end of September, reports listed 36 confirmed cases, 70 quarantined ostrich farms, 2 million dead or culled birds, and projected production losses of R800 million. A joint operations centre was established in the Western Cape. Egg shortages started to take effect because of a 70% reduction in supply. Despite increased control measures, the virus continued to spread rapidly in the Western Cape, bringing the total number of confirmed cases for all types of poultry to 64 by October.

In addition to farmed birds, State Veterinarians reported 48 “outbreaks” in wild birds and hobbyist birds in a second report to the OIE (23 January 2018), which covers all cases listed to 3 December. Summer temperatures eventually slowed the spread of the vaccine and no new outbreaks in commercial or backyard flocks were reported from late October in either the northern or southern clusters.
DAFF applied for more funding from Treasury to deal with the crisis, while officials met with company CEOs to discuss compensation guidelines and control measures. DAFF confirmed it would compensate farmers for culling uninfected birds, but not for mortalities or sick birds, the cost of disinfection, or production losses.

As the outbreak subsided, the PDMA commissioned the Bureau for Food and Agricultural Policy to conduct a study on the economic impact of the HPAI outbreak. The impact evaluation was conducted in terms of a retrospective, as well as forward-looking analysis considering the following areas:

- Quantification of the number of birds lost or culled and the associated value of such birds;
- Quantification of the direct costs associated with the outbreak, including the cost of culling and disposal;
- Income foregone as a result of the reported outbreaks in the broiler and layer industries;
- Quantification of the impact on prices, the repopulation strategy and the resultant impact on the value of production in the broader agricultural sector. This included the impact on related industries such as grain production;
- Evaluation of the possible impact on trade patterns as a result of HPAI becoming endemic in South Africa.

The report will be available in 2018.

The PDMA has also during this period sourced resources support for the industry to aid with recovery following the HPAI outbreak. This led to the approval of a R100 million relief facility by the Land and Agricultural Development Bank of South Africa for farmers. It was estimated that at least 1 000 jobs were lost due to the devastation caused by the virus. The Department of Labour initiated a scheme to discourage farmers from retrenching staff. If employees were retained, the government accepted to pay 75% of their salaries for a period of up to six months.

**Disease surveillance and mapping**

The country’s routine surveillance programme for Notifiable Avian Influenza (NAI) uses a protocol which follows OIE guidelines and has been in place since September 2005. According to this protocol, all commercial ostriches, chickens, and non-commercial chickens should be sampled and tested six-monthly for both the H5 and H7 avian influenza sub-types. The surveillance protocol undergoes periodic revision to keep it up to date.

The PDMA aggregates AI surveillance data for the industry, as agreed with DAFF. It receives AI data submissions from farmers and reports on these biannually for the periods January to June and July to December. Samples are taken to be tested for AI at a DAFF-accredited laboratory. Results are then sent to the PDMA office for consolidation.
At present, the surveillance by DAFF in the ostrich industry uses protocols and diagnostic techniques on a par with the best in the world, including a standardised testing protocol developed by Deltamune, OVI and DAFF and advanced diagnostic methods implemented by Professor Abolnik (University of Pretoria) who is sponsored by the poultry industry. It is of the utmost importance that the poultry industry continues its surveillance for avian influenza at such a level and remains supportive of DAFF’s efforts to control this potentially devastating disease.

During the period under review, the AI reporting protocol was improved from six months to one month post the survey period. Improvements also included improved quality assurance processes. A project to enhance the AI surveillance database was also initiated and its implementation is ongoing. The project will allow DAFF and provincial authorities to access the PDMA database remotely.

An active and reliable poultry disease surveillance system is a priority to enable a better understanding of the country's disease situation and to facilitate disease control. The PDMA has continued to approach industry’s role players to provide the agency with past and current confidential data on diagnosed cases to allow the planning of a reliable disease surveillance system. In the same vein, the PDMA has appealed to the Directorate of Animal Health (DAH) in DAFF to regulate this activity and make it compulsory for all industry players, laboratories, farms, abattoirs, etc. to report cases, and to put in place penalties for non-compliance.

Even before this year’s HPAI outbreak, the NAI surveillance monitoring programme had been in the spotlight in 2016. The South Africa government suspended export permits held by various poultry facilities due to a lack of reliable NAI information. Such steps are unavoidable if submissions are not made by producers and their operational veterinarians. According to the Animal Diseases Act, Act 35 of 1984, it is compulsory for all operating poultry farms to test for AI and submit results to their provincial state veterinarian and the PDMA office.

The government’s inability to negotiate better terms, especially regarding salmonella protocols, with the USA over the AGOA renewal should be a strong motivation for the industry to get programmes for controlled diseases in place through the PDMA as soon as possible. These programmes will also be a prerequisite for the envisaged farm-to-fork meat safety system, as well as to comply with export requirements.

**Disease incidence reduction**

The PDMA has together with DAFF and the Poultry Group of the South African Veterinary Association drafted a vaccination proposal for HPAI. This proposal seeks to protect the national flock through the selective use of vaccination leading to the eradication of H5N8.

**Government engagement**

The engagement between the Poultry Disease Management Agency (PDMA) and government has grown since 2012 and continues to work well. DAFF now consults the PDMA on poultry-related disease control, epidemiology, imports and exports, and veterinary public health matters. On-going
disease risk assessment, to establish where diseases are most likely to originate, will enable effective protection of the national flock from disease outbreaks.

We are on track to promote awareness, through multi-agency collaborations and interactions between government, academia and the industry, of the regulation and control of veterinary antimicrobial agents and recommended best practices for the management of antimicrobial use, stewardship and resistance.

**Poultry veterinarians’ placement programme**

Capacity development is a key element of disease management. To this end, the PDMA conducts poultry health training workshops at the University of Pretoria (UP) Faculty of Veterinary Science at Onderstepoort, Tshwane. The training is facilitated by Dr Buks Wandrag and Dr Deryn Petty. This project was conceived in appreciation of the low levels of exposure of veterinary science students to poultry science and production. The programme aims to create a group of poultry experts who can be absorbed by the industry without the need for extensive further training. The trainees are exposed to operations on broiler and layer farms and at a hatchery. Attention is paid to problem identification, post-mortem analysis and defining solutions. The veterinarians are also linked to private poultry practitioners to hone their skills. Thus far a total of 89 state veterinarians have gone through poultry health training since 2013. Included in this figure are the 18 veterinarians trained in 2017 during courses that ran for five days in January, February and May. The programme was, however, disrupted by the HPAI outbreak.

**Development of the National Residue Monitoring and Microbial Reduction Programmes**

Historically, DAFF only tested for chemical residues in meat at a few abattoirs. Large poultry producers and retail companies conducted their own monitoring of residues in their products. Following a request from DAFF to co-operate with the implementation of a National Residue Monitoring Programme (NMRP), government released a draft paper on residue monitoring in poultry. The paper proposes that all available records of residue analyses conducted on behalf of retailers be made available to the programme. These data would enable the country to comply with international requirements for exports and allow the establishment of maximum residue levels (MRL) in imported products.

Whether exporting their products or supplying major retailers, poultry producers appreciate the need for a strong National Residue Monitoring Programme. Local consumers have a right to high quality and safe poultry products. The NRMP and the Microbial Reduction programmes are essential tools that the industry can use to standardise the quality of the product that South African consumers buy. These projects are a collaboration between SAPA and the DAFF Veterinary Public Health Directorate (VPH). The Epidemiology Section of the University of Pretoria is also involved.

A broiler sampling protocol has been designed and tested at three large processing facilities. The next phase will be to determine the basic guidelines for routine sampling of residues and microbial agents; then, based on the outcome of the results, an application to test the rest of the country will
be made. The National Department of Health (DoH) has been invited to participate in the research, to facilitate a ‘One Health’ approach. The long-term objective of the programme will be to enable the export of products, irrespective of farm size, with endorsement from DAFF based on standardized testing and monitoring programmes; whilst simultaneously benefiting health amongst local poultry consumers.

The PDMA, in collaboration with DAFF’s Veterinary Public Health (VPH) division, ran a successful pilot study of egg sampling, residue and microbial presence testing as a first step towards the development of a national residue and monitoring programme for eggs. A total of 32 commercial and 6 small-scale layer farms were included in this preliminary sampling around Gauteng province. The egg sampling protocol is currently the subject of two MSc projects. The outcomes of these two projects, which started in early 2015, will be used to set the minimum testing requirements for egg producers in the formal and informal sectors. The testing protocols will also be used for export purposes, where national programmes are required by importing countries. Most importantly, the protocols will provide the egg industry with benchmark levels from which improvements can be made and measured. The programme will allow for continuous monitoring, evaluation and improvement of disease and residue procedures.

In light of the outcomes of the Antimicrobial Resistance Summit held in October 2014, the poultry industry has to commit to being part of the solutions team and make sure that it plays its role in addressing the issues. The Department of Health (DoH) is very clear with regards to the actions they wish to see, and producers, veterinarians and the pharmaceutical industry need to join hands with DAFF to start looking at solutions for the meat producing industries. Proactive interventions are needed to avoid being left with regulations which are not practical in the field. The process will begin with a three-year review of the use of antimicrobials in animal feeds and additives.

The PDMA has also during this period sourced resources support for the industry to aid with recovery following the HPAI outbreak. This led to the approval of a R100 million relief facility by the Land and Agricultural Development Bank of South Africa for farmers. Other programmes that were sourced in this area include the Department of Labour’s training lay-off scheme which would assist farmers in distress by paying a stipend to employees while improving their skills, for a maximum of six months.

**Meat Safety Scheme**

On 7 July 2017, the Department of Agriculture, Forestry and Fisheries promulgated the Meat Inspection Scheme, which falls under the Meat Safety Act, Act 40 of 2000. In conjunction with industry, government has tackled the issue of independent meat inspection (IMI) over the past few years as the absence of such a scheme for poultry negatively impacts retailer audit scores and certain export opportunities.

The scheme involves enhancing meat safety practices; conducting surveys; offering training; investigating food-borne diseases; promoting good hygiene practices; determining the origin of meat and animal products; monitoring residues in meat and animal products; creating assessment
services; creating standard microbiological testing protocols, etc. All national production should be produced to a common minimum standard. All imported products can be then be tested against the scheme standard and all further processing by importers can also be tested against local standards. Import barriers, relating to the minimum standard, can be put in place to protect consumers where necessary.

Implementation of the scheme began in mid-2017. All interested meat inspectors, who comply with the provisions of the scheme, were expected to apply to become meat inspection assignees by 4 August 2017.

**Developing a searchable registered products database**

Information on registered products is available on the PDMA website. There has been great progress in the submission of package inserts from various companies since the notification sign was uploaded to the landing page of the website. The PDMA would like to thank all the companies for their time and contribution. The database will be an effective tool to assist producers with farm management. The website is open to the public: [www.poultrydiseases.co.za](http://www.poultrydiseases.co.za).

**Research Chair in Sanitary and Phytosanitary Risk Analysis**

Funding has been secured from the Department of Science and Technology and DAFF to establish a Research Chair in Sanitary and Phytosanitary Risk Analysis. The joint funding will be for five years at a cost of R3 million a year; renewable for a maximum of three five-year terms. The National Research Foundation (NRF) included this position in both its June 2016 and January 2017 call for research chairs. The animal health industries, through the National Animal Health Forum, will suggest projects and provide project funding. The chair will be responsible for building the country’s risk analysis capabilities by training postgraduate students.

**Informal chicken market (GDARD project)**

In South Africa, the majority of chickens sold in urban communities originate from layer or broiler farms, where it is mandatory to adhere to strict slaughter procedures. Abattoirs are regularly inspected by veterinary public health officials and the chickens sold at retail outlets are also subjected to monitoring by government agencies.

However, in rural and township communities, large numbers of chickens coming out of commercial farms as spent hens are slaughtered and processed daily under unhygienic conditions. In these informal markets, there is no monitoring of quality (microbial or antimicrobial residues) at either the slaughter or sale levels and this poses a risk of food poisoning for the consumer. In an effort to address this and stamp out illegal slaughter, the Gauteng Department of Agriculture and Rural Development (GDARD) has fully funded a pilot study to assess the hazards posed by these outlets which should positively guide government policy towards monitoring and ensuring meat safety for the public.
The objectives of this project are stipulated below:

- Determine the distribution of informal chicken outlets in Gauteng province, the different processing practices and the sanitary practices during slaughter, dressing and packaging;
- Identify the critical control points in the operations at the outlets, as well as the risk factors for bacterial contamination;
- Determine the prevalence of *Salmonella* spp., *Campylobacter* spp., *Escherichia coli*, *Staphylococcus aureus*, total coliforms and total aerobic plate count at various stages of processing;
- Determine the occurrence and types of antimicrobial residues in the livers of the chickens;
- Characterise the pathogens by phenotypic and molecular techniques regarding the presence of toxic, virulence and resistance genes;
- Recommend intervention strategies for sanitary practices at the outlets that will lead to safer chickens being sold to consumers.

As part of the work on this project, a total of 151 cloacal and carcass swabs from birds sold in the targeted informal markets were collected and subjected to bacterial isolation and identification, such as gram staining and biochemical tests for *E. coli*. Furthermore, 151 rinse and drip water samples relating to each bird sampled were collected. From the 151 samples collected from cloacal swabs, carcass swabs, rinse water and drip water, the frequency of isolation of *E. coli* was 16.6%, 19.2%, 68.2% and 46.4% respectively.

Antimicrobial sensitivity tests were also performed to determine the susceptibility of *E. coli* to antibiotics used in the poultry industry. The pathogen was found to be resistant and sensitive to a number of antibiotics. Further molecular characterization for the enterotoxigenic *E. coli* and enteropathogenic *E. coli* serotypes will be conducted as the study continues. One PDMA employee is involved in this study as part of her MSc programme. Results will be shared upon completion of the study.

**National Animal Health Forum**

The PDMA represents SAPA at the National Animal Health Forum (NAHF). Some key discussions that have involved and affected the poultry industry are:

*Managing the use of anti-microbials in animal husbandry*

South Africa pledged its commitment to the World Health Assembly resolution EB 134/37 “Combating antimicrobial resistance including antibiotic resistance”, adopted in May 2014. In October 2014, the Antimicrobial Resistance (AMR) National Strategic Framework was launched domestically. Key stakeholders within the sectors of human and animal health, agriculture, and science and technology supported the initiative, which aims to combat AMR in South Africa and conserve the efficacy of antimicrobials for optimal use in the management of human and animal disease and infection. The AMR Strategic Framework defines South Africa’s approach to the appropriate use of antimicrobials by healthcare and animal health professionals.
More information on the stewardship guidelines can be found at:

**Implementation of the Provision of Veterinary Services Report recommendations**


**The manufacture and use of unregistered products**

The manufacture and use of unregistered products is increasing and is of particular concern where vaccine and antibiotics are concerned. The NAHF is working to find solutions to the issue and to protect the human food chain.

**8.3 Poultry research Chair: 2017**

An industry-sponsored Chair in Poultry Health and Production at the University of Pretoria (UP) was formally established in August 2012. The mandate of the Chair, Professor Celia Abolnik, is to conduct research into poultry diseases with the aim of improved control. Regrettably, SAPA can no longer afford to financially support the Research Chair and approached the National Research Foundation (NRF) and Department of Science and Technology (DST) to create a South African Research Chairs Initiative (SARChI) chair in poultry health and production. After a rigorous application process that involved international review of the proposal submitted by Professor Abolnik, the University of Pretoria was successful in its application, and Professor Abolnik will be funded by the NRF and DST from 2018 to 2022 to continue poultry research. SAPA’s envisioned role in the new SARChI Chair will be to provide funds for specific research projects via proposals submitted through the SAPA Research Committee.

**Progress with research**

The HPAI H5N8 outbreak took precedence during 2017. Fifty-one complete genome sequences of outbreak strains isolated by national laboratories were produced and analysed. The molecular epidemiology of the outbreak strains was analysed and periodically reported to the Poultry Group of the South African Veterinary Association, and local and national government officials.

A clinical trial to test the efficacy of the Volvac B.E.S.T. H5 vaccine against a local H5N8 field strain was completed for Boehringer Ingelheim in December.
Two Tshwane Animal Health Cluster/Technology Innovation Agency (TAHC/TIA) projects, one for the expansion of the national influenza A virus antigen panel and the other for the development of poultry mycoplasma diagnostic assays, ended in June and final reports were submitted.

A third TAHC/TIA project for the production and validation of H5, H6 and H7 ELISA assays for chickens and ostriches was extended. The filing of patents is being investigated.

The Chair, two PhDs and the postdoctoral fellow attended the XXth World Veterinary Poultry Association Congress from 4–8 September 2017, in Edinburgh, Scotland. Three posters and two oral presentations were presented.

Scientific papers

In 2017, the following peer-reviewed scientific papers appeared in press, or were accepted for publication:


Students

Dr D.G. Bwala was awarded his PhD with a thesis entitled ‘*Mycoplasma gallisepticum* infection dynamics and vaccine protection in South African poultry’;

PhD students C. Mubamba (Newcastle disease in Zambia), S. Theobald (antimicrobial resistance in *E. coli* in South Africa), A. Beyleveld (mycoplasma genomics and diversity), A. Laleye (notifiable AI) and T. Smith (H6 vaccines produced in plants) are on track with their respective projects. A. Beyleveld and A. Laleye are expected to submit dissertations for examination in 2018;
MTech student T. Phiri completed her project and submitted her dissertation to Vaal University of Technology for examination;

New student R. Pieterse registered for the degree MSc (Tropical Animal Health) to work on influenza in ostriches.

8.4 Technical support for emerging farmers

During the HPAI outbreak, the PDMA conducted a number of seminars in areas relating to the emergency response. The PDMA was invited to give presentations on inter alia biosecurity, emergency disease response and HPAI to small-scale poultry farmers, agricultural officers and veterinary officers. The presentations addressed the importance of biosecurity as a preventative tool.

8.5 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) have 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.

In August, an agricultural school in Gauteng came under fire in the local press for keeping hens in battery cages. The cage-free movement has gained momentum in the US and Europe over the past 3 years and is being felt in South America, Australia, India and South Africa. With McDonalds South Africa's announcement that it will follow its parent company's lead and "uncage the Egg McMuffin" in this country by 2025, the cage-free revolution and disposal of male chicks are no longer "horizon issues" for South African producers. Swiss company Nestlé, the world's largest packaged foods supplier, announced in November that it aims to use only cage-free eggs in Europe and the USA by the year 2020. As with McDonalds, the company will come under pressure to introduce this policy in all of its operations worldwide. Global companies General Mills and Kraft Heinz have extended their cage-free pledges to include their African and Asian offerings by 2025. Kraft Heinz currently offer six products in South Africa, including their Miracle Whip mayonnaise. General Mills produce Cheerios and Hâagen Dazs icecream.

The first draft of the OIE's global layer welfare standards was made available for public scrutiny in late 2017. Producers were invited to comment by 9 January 2018 on the chapter `Animal welfare and laying hen production systems.’ It is anticipated that the final draft will be submitted for approval at the OIE General Session in May 2019.
SAPA continued to work with the South African Bureau of Standards on developing welfare standards for poultry, using SAPA’s Code of Practice as a source document. The issues of cage sizes, age at beak trimming and long-distance transportation received special attention. The proposal that the space per hen in battery cages should increase from 450 cm$^2$ to 550 cm$^2$ understandably met with huge resistance, owing to the financial implications. Producers were encouraged to voice their opinions at several meetings held around the country. The revised Code of Practice was approved at the Broiler and Egg organisations’ annual general meetings held at Congress in June 2017, with some amendments on stocking densities to the layer code. The Code of Practice is available on SAPA’s website.
9. **AGRICULTURAL POLICY ACTION PLAN**

SAPA has collaborated with the Department of Agriculture, Forestry and Fisheries (DAFF) 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, Forestry and Fisheries should develop a plan that addresses the vision of the National Development Plan (NDP) and the New Growth Path. Under the Medium Term Strategic Framework of the NDP, agricultural development is seen as a 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 is 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 through successful land reform, job creation and poverty alleviation”

The National Development Plan, Chapter 6, sets out clear targets and actions to realise this vision. It identifies 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 aims 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 will receive the most support. The Department says 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 identifies 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 has identified important agricultural value-chains and will target government investment accordingly. The Department is 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 is 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 was 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 aims 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 are also being put in place to help achieve the development objectives, especially in integrating planning, monitoring and evaluation between the Department of Rural Development and Land Reform and DAFF 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.

- Poultry production systems have a high dependency on imported feed grains for animal feed; about 63 % of soya oilcake is imported, pushing up feed prices.

The strategy of the Key Action Programme for poultry focuses on import substitution. When the KAP was drafted, there existed hope that the new import tariff structures would stimulate local production. However, with the US now allowed to export 65 000 tonnes/annum of frozen chicken portions to South Africa, free of anti-dumping duties, and with the EU and Brazil still enjoying favourable access to the local poultry market, import substitution and growth of the South African broiler industry are likely to be problematic.
The Department of Agriculture, Forestry and Fisheries sees 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 is pushing 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 will be amended, and regulations relating to the retention of protected soya bean seeds will be developed and implemented. Smallholder training programmes focused on soya bean and yellow maize production and post-harvest practices will be refined and expanded. Off-take agreements with feed companies will be sought.

A national Poultry Support Programme will be developed and implemented in partnership with SAPA. Research programmes will 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. This approach is already paying dividends. With maize prices dropping at the end of 2016, a bigger area (573 950 ha; + 14 % year-on-year) was planted to soybean and the harvest is estimated at 1.32 million tonnes (+77 % over 2016; Crops Estimate Committee). Industry commentators expect South Africa to move even closer to self-sufficiency with the 2018 harvest, which should be higher even than this year’s record volume. Farmers have indicated an intention to increase plantings by 25 % over 2017 hectares.

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:

In the State of the Nation address in February 2016, President Zuma announced a “Nine point plan” to rejuvenate the flagging economy. One of the nine points is the “revitalisation of agriculture and the agro-processing value chain”; now known as RAAVC. During 2016, the Government also introduced the concept of Operation Phakamisa, initially with the ocean and mining economies and then, in spring 2016, with the agricultural sector. Operation Phakamisa is derived from Malaysia’s Big Fast Results methodology which has been used successfully to achieve rapid economic transformation. Its broad aim is to stimulate growth, foster job creation and instill transformation along the agricultural and agro-processing value chain. The Departments of Rural Development and Land Reform (DRDLR) and DAFF held a series of strategic workshops in six-month consultation period in order to produce a scoping document to be used at a 5-week Operation Phakamisa laboratory in September/October 2016. There were 161 registered participants at this laboratory and poultry producers made their voices heard in the Livestock work-stream. Of the 27 initiatives decided on during the course of the laboratory (which are aimed at accelerating delivery of the National Development Plan), five fell under the Livestock workstream:

1. Livestock Skills and Knowledge Upgrading Programme
2. Access to commercial and alternative livestock value chains
3. National Livestock census and animal identification and traceability programme; to strengthen exports; improve disease control; and ensure adherence to international trade protocols.
4. Enhanced animal health, through revolutionary veterinary services
5. Fortified veld management; for sustainable livestock production; aiming to rehabilitate 550 000 hectares of old lands and eroded and cleared areas, with a 20% improvement in grazing capacity by 2030.

Over the past three years, a lot of plans and strategies have been adopted in relation to agriculture and rural development. It remains to be seen whether the plans will be matched with action on the ground.
10. SAPA RESTRUCTURING

10.1 Restructuring 2013 to 2015

In October 2013, the need for a new, more efficient SAPA became clear. Members insisted that the activities of SAPA be made more relevant to all of them. In January 2014, SAPA took the decision to consolidate 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 CPO and the DPFO would be absorbed into their respective product value chains, falling under either the Broiler Organisation or the Egg Organisation.

With revised national and provincial structures decided upon, a draft Constitution was drawn up. The need for two completely separate representative bodies was mooted and, in the end, a further revised but unified membership structure (two member bodies and a Board composed equally of both bodies) was accepted by the Executive Committee of all four organisations.

Under the new SAPA structure, membership representation of the Association will be by category, as follows:

Subsistence farmers

Broiler: less than 1 500 birds per cycle

Egg: 1 – 499 hens

Small commercial farmers:

Broiler: more than 1500 birds per cycle; less than 40 000

Egg: 500 – 50 000 hens

Large commercial farmers:

Broiler: more than 40 000 birds per cycle; less than 40 000

Egg: More than 50 000 hens

The provincial structures for both the Broiler and Egg Organisations will nominate representatives to participate in the relevant national structure. The provincial and national structures of both the Organisations will need representation from all sectors of their value-chains; for example, abattoirs will need to be represented within the Broiler Organisation structures, and pullet-rearers within the structures of the Egg Organisation.
The Management Committee accepted the draft constitution in April 2015 and agreed that the new SAPA member structure should go before the SAPA Congress in June 2015, for member approval. Besides the consolidation of the organisations, key changes which would be discussed at Congress included:

*The provincial structures.*

These will now be voluntary, less formal and self-funding, rather than part of a formal lower tier of the national SAPA structure. They will have increased flexibility to set their own rules, without the need to have these rules proposed and accepted at a SAPA AGM.

*The Egg Organisation.*

Egg producers will have a dedicated person to serve their needs.

*Project management.* SAPA staff will no longer be involved with project management on any research projects undertaken by either of the two new organisations. All project management costs must be fully funded by the project itself.

At the 109th Congress of the South African Poultry Association, members in each of the four SAPA subsidiaries voted to create two new organisations representing the egg and broiler value chains. They also voted to establish a Board to manage all non-egg and non-broiler specific affairs and to be an over-arching and unifying authority. The SAPA Board will have four representatives from each of the two Committees, and two alternatives. The initial leadership of the two producer bodies and the Board was determined by the current Management Committee, to allow for continuity in management while the new structures were launched. From SAPA Congress 2016, normal voting processes have applied.

Once it had been accepted by Congress, the new SAPA constitution had to be approved by the Commissioner of SARS. The existing SAPA structures therefore had to remain in place until SARS were satisfied with the constitution – this approval was received in October 2015. The new Constitution could then be implemented, by virtue of written resolutions prepared and signed by the new Committees in the months leading up to the SARS announcement.

In order to realise the new SAPA strategy, the existing funding structures changed. The two committees used a draft funding proposal to draw up and agree to their own budgets, including their contribution to the shared services budget (cost of secretariat, statistical services, website, etc.). The bulk of the decision-making is thus done at individual committee level, with the SAPA Board ratifying the shared services budget only at the end of the process. Expected expenditure decreased by 40% in 2015 and this level was to be maintained through 2016 and 2017.

The Egg Organisation held its first meeting on 12 November 2015 and opted for a voluntary flat-rate funding model of 1 c/dozen eggs, on top of a basic membership fee of R400/year. In March 2016, the Chairman of the Egg Organisation wrote to all egg producers to appeal to them to support the Egg Organisation. Without the support of producers, the Organisation would have to be dissolved.
as organisational income was below the level needed to sustain expenditure. The response to the appeal was disappointing, even with some new members climbing on board. By the end of the year, the Egg Organisation decided that a statutory levy would be the only solution to allow the organisation to carry on with its work on behalf of all producers. This work includes the collection and distribution of statistics, health and welfare work through the PDMA, food compliance work and government and media engagements.

The new Broiler Organisation held its first meeting on 26 November 2015. Its voluntary funding model is based on the number of birds slaughtered per week. Broiler breeder producers tentatively agreed to carry 14% of the Broiler Organisation costs. As with the Egg Organisation, finances have been stretched in 2017, putting paid to any thoughts of advertising campaigns or research projects in this financial year. Legal expenses continue to be a huge drain on resources for the Broiler Organisation.

Under the new membership structure, the provincial organisations are expected to conduct a survey of the producers in their province and to recruit producers and build membership of SAPA to increase its relevance. Databases of producers at provincial level will be maintained and shared with the SAPA national structures. Provincial organisations are expected to lobby the relevant authorities on local issues and to identify empowerment opportunities and development projects.

10.2 Renewed change in 2017

Early in the year, one of the larger egg producers tabled a resolution to consider dissolution of the Egg Organisation. Funding had been problematic for some time and the Egg Organisation in its current form was not viable. Although the resolution was voted down at the AGM in June, this was just the beginning of new upheavals in the two member organisations. The Broiler Organisation was hit by the withdrawal of one of its largest members and further restructuring became inevitable to ensure that SAPA remains representative of the majority of poultry and egg producers in South Africa.

Kevin Lovell, who had served as SAPA’s CEO for 11 years, stepped down from his role in August and Dr Charlotte Nkuna was appointed as interim CEO from September 2017. Meetings of both the Egg and Broiler Organisations were held in September, which gave members a platform to evaluate the work SAPA was doing and to decide what work should be focused on. The organisational structure to support this work was debated.

The egg producer’s meeting discussed the threats facing the industry and producer apathy. The meeting resolved that it was important for producers to stand together to tackle these existing and future threats and that a representative body was a necessity. It was agreed that the industry would seek a statutory levy to fund its activities and gradually deplete its historical deficit. The EO has presented a case to the National Agricultural Marketing Council (NAMC) for the reintroduction of a statutory levy. The motivation was positively received by NAMC. A further Egg Organisation meeting was held in October at which a budget was drafted. This budget formed the basis for the
application made to NAMC in November 2017. A levy of 1.5 c/dozen was proposed. The proposal will be published in the Government gazette and a public participation process will followed. The process could take from six to eighteen months to complete, depending on the extent and nature of objections from interested and affected parties.

Key stakeholders in the broiler industry met in late September and also resolved to put aside their differences and to work together to address the issues besetting the industry. The producers adopting this resolution together account for about 70 % of production in South Africa. The Organisation will now seek buy-in from the other 30 % as it debates the structure to be adopted going forward and the work to be done. The Broiler Organisation has opted for a voluntary funding model.

A turbulent year ended with new optimism and greater co-operation amongst producers. Further meetings of both organisations are scheduled for January 2018 which will outline the roadmap to a new organisational structure at SAPA.

10.3 Industry transformation

A strategic transformation session was held in August 2015 and a decision was taken at this meeting to produce a draft transformation document. This document defined the scope and nature of the work to be done by SAPA to support transformation initiatives. The Management Committee accepted that the role of SAPA in transformation is to facilitate work that brings about social, political and economic change in the industry, rather than to do it directly. The Transformation Committee produced a draft report which details the poultry industry’s racial history, its status at the time, a strategy and an action plan.

At its December 2015 meeting, the Transformation committee identified three key areas for SAPA’s transformation agenda. The first focus area is simply to report on success stories in the industry, both at the small-scale farmer level and within big business. The Poultry Bulletin and annual Avi Africa Congress are the perfect vehicles for spreading the word on transformative projects. These media avenues also lend themselves to providing technical information and industry statistics to small scale farmers.

The second focus area is SAPA’s internal transformation as an organisation. Significant steps forward were taken in this regard in 2016 with the first black chairpersons in SAPA’s 112-year history being elected at the AGM, during Avi Africa. Achmat Brinkhuis and Willie Bosoga took the positions of chairperson of the SAPA Board and the Egg Organisation respectively. At the beginning of 2017, Dr Ziyanda Majokweni took up her position as the new director of the Poultry Disease Management Agency (PDMA). Dr Charlotte Nkuna is a Senior Executive and, as the Egg Liaison in SAPA, is the main contact person within the organisation for transformation matters.

The third focus area for the Transformation Committee is to assist and report on transformation in the industry itself. While SAPA cannot interfere in the running of individual businesses on
transformation issues, it can continue to liaise with Government on behalf of the industry and provide the industry with feedback on these discussions. Large companies will, of course, be subject to government progress audits according to the seven pillars of the AgriBEE charter. However, the Organisation has more power to influence transformation at grass roots level, amongst small scale farmers. The transformation agenda cannot succeed though unless all stakeholders are involved.

In an attempt to bring all parties together, a multi-stakeholder meeting was held in Sandton on 19 April 2016, attended by SAPA, the Department of Trade and Industry (dti), DAFF, the Department of Rural Development and Land Reform, the GDARD, and the Industrial Development Corporation (IDC). All parties agreed that transformation efforts and finances need to be better coordinated. The newly formed steering committee was tasked with putting a detailed transformation programme together, with budgets. The IDC and SAPA will take the lead in this regard. The Agricultural Policy Action Plan (APAP), launched in 2015, has transformation as a cornerstone. APAP is an official Cabinet-approved policy with the purpose of prioritising spending within DAFF. Poultry is one of the priority sectors in terms of APAP (Chapter 9).

Complaints had been heard from some small-scale commercial farmers who felt that they had lost their voice when the Developing Poultry Farmers’ Organisation (DPFO) was disbanded. Part of the Transformation Committee’s mandate is thus to develop provincial structures, as provided for under the new SAPA constitution, and, in so doing, encourage smaller producers to join SAPA. SAPA provincial meetings were held in Gauteng in February and North West in March 2017.

The termination of the statutory levy at the end of 2013 reduced the amount of money available for small-scale farmer-specific projects and general organisational work within SAPA. However, the SAPA Board agreed towards the end of 2015 to earmark SAPA’s statutory levy surplus for transformation projects, under the direction of the new Transformation Committee. The goal is to establish an evergreen trust with surplus funds from the now defunct levy. Growth in the fund would allow roughly 6% to be used annually to support development and transformation projects. The National Agricultural Marketing Council accepted the idea in principle and the necessary legal trust deed was drawn up and approved by the NAMC and DAFF in 2Q 2017. The trust then had to be registered and trustees appointed. SAPA trustees include three small-producer representatives and one large-producer representative. The latter will rotate between the Egg and Broiler Organisations. Trustees will also be nominated by DAFF and NAMC. Once tax exemption has been granted by SARS, SAPA will be able to transfer the surplus funds to the trust. Additional funds will be sought to bolster the trust fund.

Industry transformation will focus on creating more and better opportunities for previously disadvantaged producers; improving access to quality inputs, information, finance, veterinary services and abattoir facilities; providing mentorship; assisting in the creation of regional networks for smallholder producers; and expanding market access. 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.
11. TRAINING AND SKILLS DEVELOPMENT

11.1 DAFF small farmer training

The primary focus of SAPA’s training activities in 2017 was the DAFF small-scale farmer training initiative. The initial agreement was to train a total of 250 small farmers using the funding provided by DAFF. A total of 94 small farmer candidates benefited from the training in 2017, bringing the final total to 356 candidates – exceeding the goal by 106.

From inception, the intention was to maximise the number of farmers benefiting in an effort to stretch scarce resources as far as possible without compromising standards. The enthusiastic support provided by DAFF’s National Office through Livhuwani Mudau was instrumental in ensuring the success of this project. The efforts of the extension officers in assisting with the coordination of the training interventions, as well as the commitment of training providers KwaZulu-Natal Poultry Institute and Dumela Poultry Solutions, need to be recognised. SAPA continues to assist small farmers on a daily basis in an effort to provide some support and advice.

11.2 AgriSETA funding

Funding support through the Agricultural Sector Education and Training Authority (AgriSETA) continued in 2017. This funding is of great value in addressing skills shortages in the industry. Further to receiving funding from AgriSETA, SAPA is now represented on the AgriSETA Poultry Subsector Committee, as well as on the Grant and Funding Allocation Committee.

One of the goals for 2017 was the commencement of courses for poultry training facilitators. With the outbreak of AI, this did not take place and will be reviewed in 2018.

**Poultry meat examiners and inspectors**

There is a constant need for suitably trained Poultry Meat Examiners (PME) in the poultry sector. AgriSETA granted SAPA R336 000 for poultry meat examiner (PME) and poultry meat inspector (PMI) training in 2017. This training intervention was successfully started in October and will last for a period of 6 months with 30 PME and 15 PMI candidates being trained.

**Poultry processing qualifications**

During 2014, an application was sent to AgriSETA for the development of poultry processing qualifications in terms of the Quality Council for Trades and Occupations (QCTO) Qualifications Framework. The application covered four abattoir qualifications: poultry slaughterer; poultry slaughterer (poultry processing); poultry slaughterer (poultry meat examination) and poultry slaughterer (poultry meat inspection). The Council for Trades and Occupations registered one of our qualifications in 2016: Poultry Farm Worker.
11.3  Avi-Africa: annual exhibition and conference

Avi Africa is the biggest poultry exhibition and conference in Africa. It is held every winter in Gauteng. Avi Africa showcases the latest in products, services and technology and provides attendees with parallel sessions of presentations by invited local and international speakers.

In 2017, the following talks were given in the three conference sessions:

**Economics and Trade:**

- Dr Langa Simela (ABSA): *Opportunities for supporting and financing developing transformation*
- Garth Strachan (dti): *Task team work*
- Linda Kekana: *The hidden market*
- Vijan Chetty (PPECB): *Export requirements for poultry*
- Peter Arts (Hendrix Genetics): *How to maximise genetic potential of modern layers*
- Kevin Lovell (SAPA): *Local is lekker!*
- Michelle Mokone (Grain SA): *Projection of the grain industry linkage to poultry*

**Production:**

- Joop Colsen (Aquest): *Unlocking the full potential of poultry manure*
- Prof. Hannes Routenbach (SAWS): *Climate change and products from the SA Weather Service*
- Dr Gina Pocock (Vita One8): *Water efficiency*
- Leon Harmse: *Environmental health feedback*
- Andre Westerveld (Elanco): *The truth about food*
- Bernard Green (Aviagen): *Minimum ventilation*
- Leon Janse van Rensburg (I-Cat): *Environmental compliance and performance for poultry operations*

**Health:**

- Prof Celia Abolnik (UP): *Research to support H6 influenza and Newcastle disease control in South Africa*
- Dr Ziyanda Majokweni-Qwalela (PDMA): *Removing H6 from the flock*
- Dr Luke Stooker (Immunovet): *Maximising the benefit of serological monitoring and reporting*
- Johan Jacobs (Deltamune): *The importance of E. coli and the relationship between the isolates*
- Dr Mpho Maja (DAFF): *Global avian influenza update*

In addition, a workshop for small producers was held on 21 June, featuring talks on production planning, diseases, opportunities in Agri BEE and the challenges faced by small scale farmers.
12. SAPA TECHNICAL COMMITTEES

12.1 Introduction

The modern-day poultry industry consists of a series of logistically planned, high-tech production operations, requiring intensive management inputs, which rely strongly on technical support from both South Africa and abroad. The role of the SAPA technical committees and work groups is to assist the industry in successfully continuing with sustainable supplies of high protein food from the modern-day poultry breeds by minimising environmental and disease-orientated stress factors, and by applying production practices which will optimise the potential of the most genetically advanced food animal species. The industry needs to adopt a broad-based self-regulatory policy for situations which need proactive control; for example, disease control, poultry welfare, antibiotic use, product safety. This approach should include research trials under South African conditions; timely development of standards; unconditional participation in disease control programmes and application of all necessary and relevant customer-oriented procedures (COPs) in practice to produce products of the required quality under acceptable conditions.

Meetings of the different work groups, that is, the Transformation Committee, the Poultry Health and Welfare Work Group, the Food Compliance Work Group, the Training Committee and the Research Committee, were held irregularly through 2017 because of SAPA restructuring and the HPAI outbreaks. Meetings are expected to be convened more regularly in 2018.

12.2 The Technical Committees and Work Groups

Transformation committee

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, with the emphasis 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.
The Transformation Committee works hard to find ways in which meaningful transformation can be realised but engagement with producers is essential. The issue of lack of transformation in the poultry industry remains a constant topic for discussion at all meetings between government and SAPA. It is a stumbling block that needs to be taken seriously in order for the industry to get full support from government.

In 2017, SAPA called on members to provide information on transformation initiatives undertaken by individuals or companies to assist the association in its engagement with government departments.

Several government departments and financial institutions have set aside funds for transformation projects which provide opportunities for poultry producers to assist black farmers to participate in the value chain. These include the Land Bank, the Industrial Development Corporation, the Public Investment Corporation, and the Department of Trade and Industry (dti). In addition, Old Mutual has indicated its willingness to finance partnerships between established and new-entrant farmers. Producers are encouraged to take advantage of these opportunities to make a positive contribution to South Africa’s economy.

Several commercial egg producers have been proactive on the transformation front, working hard to be more inclusive. SAPA has been instrumental in linking them to black farmers who wish to participate in partnerships, as well as to source potential funders for the initiatives.

Early in the year, the first few historically-disadvantaged contractors were signed up for the GDARD Tshwane fresh market processing plant. Integrated broiler producers Astral Foods and Country Bird Holdings provided technical support during the planning phase. A project manager was appointed to oversee the construction phase, including the installation of a processing line and cold storage facilities. SAPA played an important role as the implementation agent by managing the funds and co-ordinating the project, using experts to ensure a high standard. Setsong Sarona was identified by GDARD as the facility operator and at the end of 2017 the processing facility was ready to start operating. This is an exciting venture for SAPA, GDARD and the proposed beneficiaries.

**Research Selection Committee**

This Committee’s purpose is to consider and evaluate various research proposals that will utilise available funds for market or scientific research. Research proposals must be of broad-based practical advantage to the industry, addressing issues such as disease management, nutrition, production, abattoir operation, agricultural engineering and economics, etc.

At least 20% of the research conducted must benefit the goals of industry transformation, assisting smallholder farmers entering the commercial sector. Committee members represent the main sectors of the industry, and include nutritionists, veterinarians and other relevant scientists.
Training Committee

This Committee’s purpose is to consider proposals and issues relating to training and development within the established commercial and developing poultry farmer sectors. Emphasis is placed on the development of a national training and development strategy for the sectors and the establishment of minimum standards for skills development.

In addition to this, the committee’s role will be the establishment of a national network of SAPA-recognised providers of both poultry specific and non-poultry training.

The Committee works with the broader industry, developing farmers, statutory organisations and interested parties. Work group participants include members from industry (egg and broiler); local government and veterinary supply companies.

The Research Selection and Training Committees work together on matters relating to bursaries and scholarships at local universities, for both undergraduates and post graduates. Through the Research Committee, relationships are built with the Universities for the Training Committee to build on. The Committees strive to ensure growth in poultry science studies and research and in the number of poultry veterinarians and foster the establishment of centres of poultry excellence in South Africa.

SAPA’s Training and Development manager arranges and co-ordinates industry training by service providers that include the KwaZulu-Natal Poultry Institute and works to improve training resources. In this role, his function is informed and supported by the SAPA Training Committee comprising human resource managers from SAPA member companies and invited consultants.

Poultry Health and Welfare Work Groups

The Poultry Health Work Group considers issues related to poultry health and poultry disease control; working with Government where appropriate to prevent and manage diseases that threaten the national flock. Topics under discussion include controlled and other diseases (especially those that have the potential to decimate the industry’s commercial well-being), and events that reduce bio-security effectiveness. The group monitors international movements in poultry welfare and reacts accordingly (see Chapter 8.5).

Along with the contributions of this work group, poultry health is managed through the PDMA, the Research Chair at Onderstepoort; and the National Animal Health Forum, of which SAPA is a member.

Work Group participants include members from industry [egg and broiler] and industry consultants, central and local government, University of Pretoria (OP), the PDMA, and poultry veterinary supplying companies.

The Poultry Welfare Work Group considers proposals and issues relating to poultry welfare, including international practices and trade movements. Outcomes are recorded in SAPA’s Code of
Practice, with which members are obliged to comply as a *minimum* standard. Standard operating procedures are being discussed concerning poultry welfare in commercial production (including work on layer hen caging, broiler housing and stocking densities, handling and slaughter of birds) which will allow the industry to properly justify and defend production systems to consumers and the media.

**Food Compliance Work Group**

The Food Compliance Work Group interprets and considers relevant Food Safety Acts (Department of Health and DAFF), regulations and industry standards. It is the role of this work group to inform the industry how it needs to react to ensure continuous compliance when working with Government and consumer bodies.

Matters of food safety and compliance that require input from the poultry industry, DAFF, the Department of Health and product-control persons/food technologists from larger retailers, etc., include:

- The effect of salmonella and avian influenza on poultry production and consumption in South Africa in the event of an outbreak in the country;
- Broiler-processing regulations (Notice No. 153 of 24/02/2006 under the Meat Safety Act (Act 40 of 2000)) and their effect on the availability of safer chicken meat products for the consumer;
- Regulation R146 under the Foodstuffs, Cosmetics and Disinfectants Act (Act 54 of 1972) which deals with regulations on labelling and advertising of foodstuffs. It affects a number of marketing and production practices;
- The Consumer Protection Act; the regulations of which came into effect in April 2011;
- Pathogen-reduction plans and the responsible use of antibiotics in broiler and egg production;
- The ethical responsibility of poultry farmers and veterinary poultry consultants in their use antimicrobial remedies;
- Water pick-up and flavour enhancement, referred to as “brining”; measurement and monitoring of brine injection levels during production runs, using NIR meat scanners to maintain accuracy;
- Food safety and quality audits.
13. CONCLUSION

South Africa ended 2017 with the rand buoyed by Cyril Ramaphosa’s victory in the ANC’s December presidential election and the hope that further credit rating downgrades can now be avoided. However, record levels of unemployment and declining disposable income will not be solved overnight. In its October World Economic Outlook, the International Monetary Fund adjusted its growth estimate for the South African economy downwards from 1.0 % to 0.7 % for 2017. Despite a good year for agricultural production and more favourable export commodity prices, the IMF sees political turmoil sapping business and consumer confidence and has adjusted its forecast for growth in 2018 down to an optimistic 1.1 %. On the upside, good rains in the maize-growing regions of the country supported a bumper harvest in the 2016/2017 season and the 2017/2018 crop looks set to be another big one. Global soybean prices have also moderated, so market conditions support a return to profitability and growth.

In the egg industry, no new outbreaks of avian influenza have been reported since late October. However, the industry has been seriously affected by the disease and over 4 million birds have been culled, squeezing egg production and pushing up prices for farmers not affected by the AI culls. Some businesses may never re-open and others face huge losses with little assistance from government coffers. Egg prices are expected to drop through 2018 as flocks are repopulated. Producers continue to fight retailers for a fair share of the price consumers pay for eggs and will hope that there are no further outbreaks of HPAI in commercial flocks in the 2018 winter. Improved spending on biosecurity, on all farms, should reduce the risk of transmission from infected wild birds.

Local consumption of eggs (141 per person per year in 2016; 128 in 2017) remains disappointingly low. 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. As red meat prices soared while farmers restocked and rebuilt herds after years of drought, egg farmers might have enjoyed increased sales as the cheapest animal protein – but then the avian influenza outbreak brought with it egg shortages, pushing prices up by more than 20 %. Per capita consumption in 2017 fell well short of the 2016 mark. The egg industry will need to claw these losses back in 2018, through clever advertising and promotion of a highly marketable product. 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 this era of social media campaigning.

The reintroduction of the statutory levy of 1.5 c per dozen on all eggs sold will help reposition SAPA as a champion of South African egg producers. The organisation will push to have eggs included in school feeding programmes in more provinces and explore export opportunities on behalf of producers. The Egg Organisation must again take the lead in promoting consumption of eggs, making full use of social media and events such as World Egg Day to educate consumers and increase sales. It is in everyone’s interests to pull together as producers and to work with SAPA, DAFF and the PDMA to preserve the egg industry.
In the broiler industry, 2018 should be another year of strong performances, given the lower feed prices. Much will depend on how successful the industry is in convincing government to protect the industry and local jobs from dumping of frozen chicken products by the EU, the US and Brazil. The EU EPA safeguard is only a temporary measure and no one in the industry expects a duty of 13.9% to have any effect on EU imports of bone-in portions. Imports from the EU are expected to increase through 2018, as AI-related trade bans are lifted. It must be hoped that government and industry together will find a way forward in 2018 – to stimulate growth and job creation in the South African poultry industry whilst still allowing fair trade with exporting nations.

Looking beyond tariff protection, the broiler industry must seek to unlock export opportunities in conjunction with DAFF 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) locally but the high levels of imports and a sluggish economy currently experienced are not conducive to this type of investment.

At special meetings of stakeholders held in September, both egg and broiler producers voted to put aside past differences and adopt a united front in the interests of all concerned. After years of apathy and discord, this was a major step forward. SAPA is committed to representing the interests of both large and small producers and to protecting the industry from further contraction. SAPA remains committed to its vision, namely 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. The poultry industry has the capacity to create jobs and provide food security, but support from government is crucial to its survival. At the end of an extremely difficult year, we are closer to government than before and this relationship will be nurtured going forward.

Poultry producers will hope that 2018 brings the promised rain, relief from further outbreaks of HPAI and concrete steps to protect local farmers from the predatory strategies of meat importers. It is important to remember that, for every tonne of egg and meat product not imported, local jobs could be created.
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