

Subsector Study: Chicken Meat

The National Agricultural Marketing Council



Report No 2007-03

The National Agricultural Marketing Council
and
Commark Trust



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Foreword

In his February 2006 State of the Nation Address, President Thabo Mbeki identified agriculture as a key contributor to South Africa's 6% economic growth target. The sector's importance lies in its potential to provide significant contribution to economic development through job creation, assisting with poverty alleviation and earning foreign exchange.

Certain agricultural subsectors are currently delivering growth and are therefore well positioned for further growth through carefully-designed government collaboration and support. Others, although important in terms of achievement of broader national objectives, are not yet competitive and will require government to play a more leading role in unlocking their potential. A recent study by the Monitor Group identified subsectors that could be considered both nationally attractive in terms of broader development goals and international competitiveness. Using the Monitor Group study as a reference, the National Department of Agriculture commissioned the National Agricultural Marketing Council (NAMC), who later partnered with ComMark Trust, to undertake diagnostic studies whose purpose would be to identify growth and development constraints and challenges in each of the following key subsectors, as well as to recommend interventions to be made towards unlocking their potential for contribution towards ASGI-SA:

Beef cattle; Poultry meat; Citrus; Viticulture; Wool; Deciduous fruits; Potatoes; Goats; Rooibos; and Honeybush tea

Six of the subsector reports were outsourced to NAMC partners in academia and industry, while the rest were prepared within NAMC and Commark Trust.

The Chicken Meat Report is the third in a series to be published over the next few months.

TR RAMABULANA
CEO: NAMC

January 2007

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1 Executive summary

The National Agricultural Marketing Council (NAMC) and ComMark Trust commissioned this report after a study in 2006 by the Monitor Group revealed that the poultry meat subsector (broiler industry) is an attractive investment opportunity, but is currently uncompetitive (NAMC 2006). The broiler industry is one of the largest consumers of yellow maize in the South Africa (SA), one of largest, if not the largest, agricultural subsector being responsible for an estimated turnover of R14 532 million at the retail level and the employment of 54 000 people during 2005.

The aim of this report is to (1) provide an overview of the broiler industry and (2) identify opportunities for growth within the industry, employment creation and poverty alleviation.

In the domestic market, per capita consumption of chicken has increased by approximately 34% from 16.7 kg to 22.41 kg during the period 1994-2005. This increase has been partly driven by increasing imports, domestic expansion and further processed chicken supply. Future per capita poultry meat consumption is expected to increase if the population's standards of living and economic growth continue to rise.

South Africa produces 85% or more of SADC's broiler meat and, despite intrinsic disadvantages, SA broiler producers are in positive competition with those in other SADC countries, with possibly two exceptions. This means that if problems occur in the South African broiler industry, it is only a matter of time before they flow into neighbouring states, possibly causing serious harm to their economies. The South African exchange rate is important in determining export volumes as it is generally believed that a window of opportunity for South African exports exists when there is a constant decline in currency value resulting in competitive domestic prices.

There is a definite pattern of high concentration in production. This can be seen in the geographical distribution of producers and the small number of producers in the commercial sector, which contributes the bulk of production, vs. the majority of producers, who are in the informal sector and produce the balance. At the provincial level approximately 73.5% of production is concentrated in the Western Cape, North West, Gauteng and KwaZulu-Natal (listed in order of contribution size in 2005) (SAPA, 2006). At the large scale commercial level, where the 68% (DoA)-97% (SAPA) of domestic production takes place, four producers accounted for approximately 76% of production in 2005. Many of these larger broiler producers are vertically integrated with poultry feed businesses. Within the 1 745 subsistence and SMME producers known by SAPA, a similar trend of concentrated production can be observed with 30 producers producing 93% of the total and hundreds supplying the balance. These trends in concentration have been observed despite new entrants being free to enter the industry, with the only limitations being the availability of day-old chicks, capital and expertise.

The broiler industry is essentially cyclical. Major upturns depend on simultaneous augmentative cycles in aspects such as the maize price, prices of red meats, market demand (consumer spending), imports, exchange rate, health status and disease challenges. Extremely high cycles are experienced every 12 to 15 years and seasonal cycles show normal peaks in December and April. These annual cycles are forced down by imports during most years, excluding the very good market demand phase experienced over 2004/2005. It remains difficult to establish when these annual cycles will occur since there are a number of variables in the industry/market, most of which have a major impact.

Importing pure lines at the great-grandparent level, in line with Livestock Improvement Act No 60 of 1997 stipulations, results in a lag time in the expansion of commercial chick numbers is 18 to 20 months. This is in spite of the decrease in the average length in production cycle from approximately 62 days in 1968 to 38 days in 2004, through the use of commercially imported bird breeds. The cost of producing day-old broilers inhibits the constant availability of such chicks, especially when the market experiences an unexpected increase in broiler demand, and lag time prevents quick expansion.

The SA broiler industry can be seen to be competing in two different markets. The first is the domestic market, where broiler meat competes with other protein sources for market share. There are several generic reasons as to why the broiler meat industry is perceived as having a competitive advantage in the domestic meat market against other South African meat sources. These include the higher speed in genetic progress due to a shorter breeding cycle, nutritional progress and performance pressure due to domestic and international competition.

The second market in which SA broiler producers compete is the international broiler market. In this setting it is clear that there are intrinsic disadvantages for poultry production in SA, which prohibit both commercial and small-scale farmers from being named among the best producers in the world. Limiting aspects include the low yield per hectare (and relatively high prices) of grains, high transport costs and lower efficiency levels due to the high altitude at which production takes place. As a result of these factors, tariff levels and SPS standards are very important in maintaining the competitiveness of the industry.

It is presently the perception among producers that differences in SPS standards for imports and exports are hampering industry performance and that the same stringent standards should be implemented for the verification of imports as exports. The current SPS standards for exports prevent exports to the European Union and the US (SAPA 2006).

The broiler industry has shown an average annual growth rate of 1% over the last six years, including 2005/06. Another important trend in the supply of broiler meat to SA consumers is the increasing market share taken up by imports (SAPA 2006). According to SAPA (2006), these imports have been largely attributed to exchange rate movements

and together with unfavourable cost to sales price ratios, have been responsible for the displacement of expansion possibilities in eight of the last ten years. The fact that cheaper cuts and offal are imported and sold into institutional and other markets adds to the indirect effect of these imports.

Brazil is currently the leading exporter of broiler meat to South Africa. Since 1999, the volumes of exports from Brazil have risen dramatically. This has caused alarm within the industry, largely because of Brazil's perceived competitiveness and the threat of a possible loss in protection resulting from the introduction of FTAs, especially one between SA, Brazil and other MERCOSUR members. Factors contributing to Brazil's competitive edge include exchange rate dynamics, currently attained economies of scale, favourable climatic conditions and the support that has been provided by the Brazilian government.

Another country that has aroused concern in the industry is the US, against which an anti-dumping duty for leg quarters was instituted in 2000. The maintenance or increase of this duty is seen as important by industry role-players as a previous application for an increase in the duty levels was denied, after which imports grew exponentially (SAPA 2006).

Tariff rates need to be reviewed and adjusted as deemed necessary. Anti-dumping clauses need to be maintained in both bilateral and multilateral agreements. The current view within the broiler industry is that the R2.20 tariff on cuts and offal (bone-in portions) needs to be maintained (SAPA 2006).

The feed and chick cost per kilogram of live bird differs markedly for the small farmer sector and the commercial farmer sector mainly because of differences in economies of scale, transport costs and management. In 2004, Dr Ed Wethli indicated, that the majority of problems encountered by small-scale chicken farmers centred on land tenure, funding, business planning, training and technical assistance. He also highlighted the potential benefits of working together collectively.

In general, the commercial producers face serious shortcomings in the non-availability of middle and high level staff (SAPA 2005). Small-scale farmers and the extension officers of the DoA lack technical skills and also require training in other aspects such as production management, financial management and marketing. In reaction to these shortages SAPA has devised a training plan and strategy, which incorporates efforts of various organisations such as SAPA, AgriSETA, Department of Labour and the National Skills Fund.

Another constraint that the industry faces is a lack of health control, which is mainly a function of management and access to veterinary services. Health diagnostic services need to be made available to broiler producers. There are currently very few veterinarians available in outlying areas, and state veterinarians are not trained in poultry. The provincial authorities in charge of animal health should have specialist poultry veterinarians and

animal health technicians to ensure good bio-security, vaccination and production guidance in order to alleviate the risk of unnecessary disease transfer via less bio-secure production units.

There are various points of entry for empowering newcomer farmers (DPFO & SAPA 2005), namely (1) contract growing, (2) empowerment purchases of existing operations, (3) strategic partnerships and (4) resource centres. Items (1) to (3) have all or most of the required support structures, but are extremely limited in terms of availability. There are, however, prerequisites in all cases, especially when looking at the requirements (risk mitigating factors) stipulated by banking institutions. In the case of empowerment purchases and strategic purchases, the individual circumstances will dictate the nature of the deal. Such deals usually involve a going concern where most of the requirements for becoming a contract grower are met.

Role-players in the broiler industry have developed a plan for assisting SMMEs in attaining profitability using resource centres. Where the resource centres are essentially based on the concept that central distribution points will allow farmers to organise into buyer groups or small cooperatives. The envisioned centres are expected to consist of ten commercial farmers and 20 to 30 trainees at 200-bird level, which can tie in the governments' CASP program and can carry out several functions such as co-ordinating extension work, making veterinary services available, gaining economies of scale in sourcing inputs and more effective and efficient marketing of end-products. In order to increase the chances of the candidates success, it is felt that they should be screened based on several criteria that have been identified e.g. having previous business experience and a grade ten level of educati

1 Introduction

This report has been commissioned by the National Agricultural Marketing Council (NAMC) and ComMark Trust under a directive from the national Department of Agriculture (DoA). The report was commissioned in response to President Mbeki's identification of agriculture as a key contributor to South Africa's growth target of 6% in his 2006 State of the Nation Address, and a recent study by the Monitor Group, which identified the poultry meat subsector (broiler industry) as being an attractive, but not yet competitive, agricultural subsector (NAMC 2006).

The main aims of this subsector study are to:

- Provide an overview of the broiler industry
- Identify opportunities as well as potential for industry growth, employment creation and poverty alleviation

Specific attention is paid to identifying opportunities for increasing the rate of pro-poor growth, employment and exports, as called for under the terms of reference set out by the NAMC (2006). Recommendations regarding key policy and possible strategic interventions in this regard will also be emphasised.

Section 2 of this report gives an overview of the type of firms and structure of the South African broiler industry as it is at present. Section 3 concentrates on the different markets in which the broiler industry operates as well as the trends found within the industry. Section 4 looks at current government policies affecting the industry and in Section 5 the constraints and challenges facing the industry are identified. Opportunities for developing the broiler industry's growth and including small developing farmers are identified and discussed in Section 6.

2 Broiler industry structure

2.1 Types of firms and market supply structure

On a national scale, commercial broiler producers and contract growers produce the majority of broiler meat in South Africa, accounting for approximately 379 and 196 industry suppliers respectively. The concentration of production can be clearly seen in Table 1, which shows the market share of broiler producers based on the number of birds slaughtered per week on a national basis (Competition Tribunal 2005).

Table 1 – Market shares of larger commercial broiler producers

Producer	% Market share
Rainbow	36
Astral	27
Country Bird	8
Tydstroom	5
Daybreak	4
Chubby Chick	4
Rocklands	4
Argyle	2
Others	10

Source: Competition Tribunal (2005)

According to the Competition Tribunal (2005), these larger broiler producers are often vertically integrated with poultry feed businesses, for example the Astral Foods Group with Meadow Feeds, Rainbow with Epol, Tydstroom with Pioneer Foods and Country Bird with Senwesco Voere.

The main estimates regarding the industry size as well as the contributions by large scale broiler producers and SMMEs come from SAPA and the DoA. According to SAPA (2006), small, medium and micro-enterprises (SMMEs) contributed approximately 3% to the volume of commercial chicken meat produced in 2005, with an estimated 488 181 broilers produced per week. The Southern African Poultry Association (SAPA) has indicated that it knows of about 1 745 small farming ventures owned by previously disadvantaged individuals (PDIs) – a fair number of which were established by government. The DoA, however, estimates that 32% of the broilers produced in 2005 were by subsistence farmers, who are sometimes classified as SMMEs. The number of informal subsistence farmers is currently not known.

The relative sizes of producers and their market share can be seen in Figure 1, which also gives an indication of the marketing channels and role-players in the South African broiler industry.

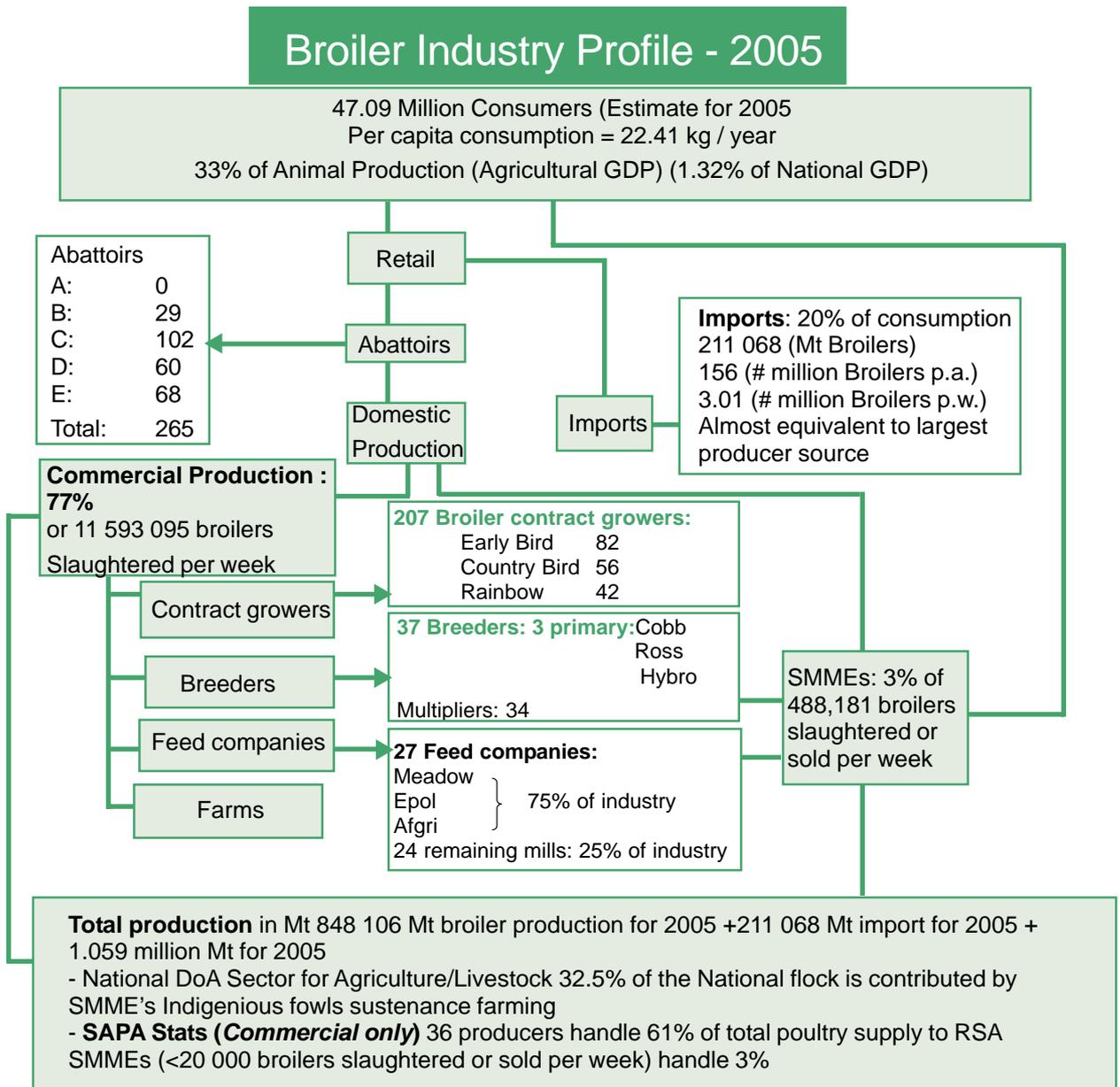


Figure 1 – Marketing channels and industry structure

Source: SAPA, 2006

Figure 2 clearly indicates the degree of dominance and integration of the larger commercial broiler producers. The upcoming informal sector shows a similar trend, with 30 producers producing 93% of the total and hundreds supplying the balance (SAPA 2006). New entrants are however, free to enter, the only limitation being the availability of day-old chicks, capital and expertise (SAPA 2006).

Since the economic upswing (2005/06) various changes have occurred with ownership and expansion. Afgri (previously OTK) sold its 50% holding in Earlybird to Astral Foods making Earlybird wholly owned by Astral. (Tiger Oats previously owner of the companies now in the Astral group listed its agribusiness sector as Astral Foods whilst changing its name to Tiger Brands with no intensive agricultural interest.) Adding County Fair as part

of Astral this has brought the total Astral group's broiler production to just below that of Rainbow. Also part of the Astral Foods group, are Natchicks (chicken supply) and Meadow (feed supply) as other legs of the group. It should be noted that Earlybird and County Fair have maintained their different identities and management for reasons of distance and continuity, as well as other strategic reasons.

Since then, Afgri has purchased Daybreak as a re-entry into the broiler industry and declared an intention to expand to one million birds per week in production size.

Both Country Bird and Agri Chicks were acquired by a group of Zimbabwean (2005/6) producers (previously from Crest Zimbabwe) and their expansion has been nothing less than formidable, already exceeding one million broilers per week, with plans to become serious contenders for the big league both in South Africa and in supplying day-old chicks into Africa. This group has every intention of listing on the JSE and importing the Arbour Acres breeding line in the near future. During January 2007 the one director of this group joined forces with Chubby Chick's owner and jointly bought out Senwes Voere – closing the chapter of 'poultry farmer support' of the Sentraalwes co-operative as they have divested from poultry and feed activities.

At the level of chick supply, the Cobb Bird was imported approximately in 2003 by Rainbow to supply its own and outside broiler producers with day-old chickens. These two breeding lines (Arbour Acres – imported by Supreme/- the previous Country Bird and Cobb Bird – RSA franchise in Rainbow camp are therefore the suppliers for the whole industry apart from Tydstroom in the Pioneer group. Tydstroom – who holds the Hybro franchise is also the only user of Hybro birds – with their own pure lines and breeding operation and no known outside sales of day-old chickens to other producers (confirmed by their termination of promotion of Hybro lines in South Africa.

In all of the above companies, and in most other companies in the broiler subsector, expansion plans which were previously held back due to unfavourable markets and cost to sales price ratios have revived and great expansion is taking place. This is partly to have product to supply to the recently buoyant markets stemming from the upswing in consumer spending over the 18 months prior to June 2006.

Figure 2 highlights the provincial distribution of South African producers in the broiler industry as estimated in 2005. Note, however, that the figure is based on the known producers and cannot be taken as representative of the entire industry, only of a major part of it.

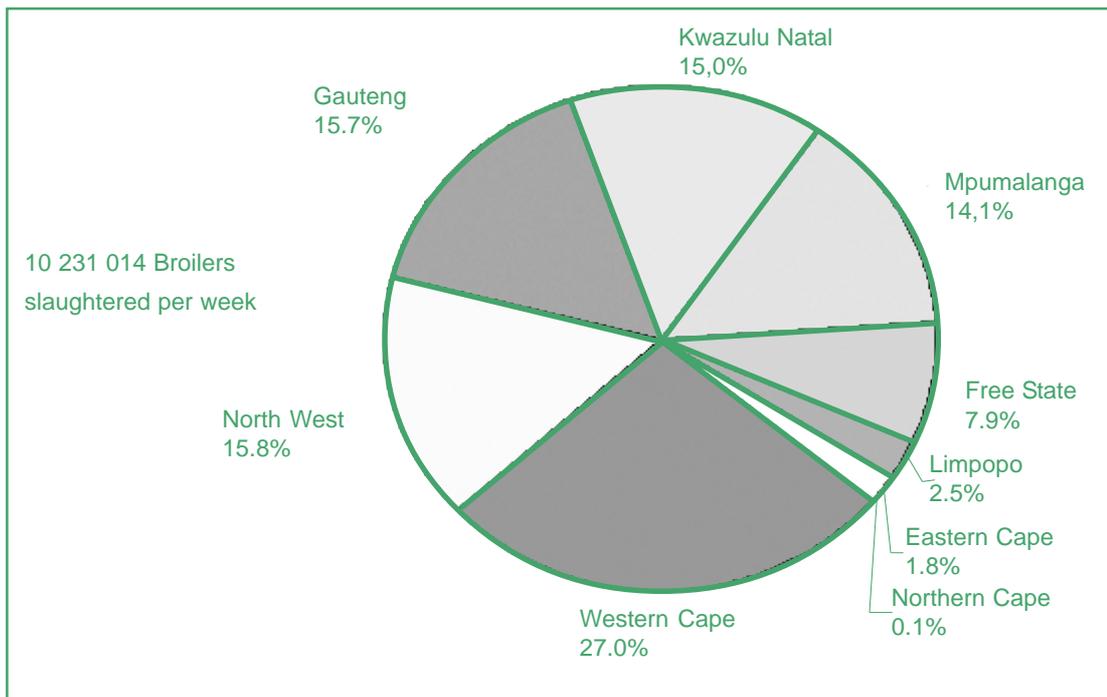


Figure 2 – Geographic dispersion of broiler producers in November 2005

Source: SAPA (2006)

2.2 Associations and forums

The Southern African Poultry Association (SAPA) is a federation of four sub-organisations, which together effectively act as a poultry forum. An overview of SAPA's structure and sub-organisations is presented in Figure 3.

The central body or Management Committee addresses issues that are of common interest to all four sub-organisations and tries to ensure that together the organisations run at the lowest cost possible. Each of the four sub-organisations has its own constitution and independently run projects that fall under its specific sphere of interests.

SAPA's Chick Producers Organisation is made up of members who are engaged in the breeding and/or production of chickens or the production of fertile eggs (SAPA 2002). These members supply the day-old broiler and layer chicks into the broiler and layer subsectors of the poultry industry and many are integrated into the large groups as wholly-owned subsidiaries of a mother company. The broiler and layer subsectors are similarly represented in SAPA by the Broiler Organisation of the Southern African Poultry Association and the Egg Organisation of the Southern African Poultry Association respectively.

The Developing Poultry Farmers Organisation (DPFO) was established in 2003 and is totally dependent for the financing of its activities on other affiliates' subscription contributions. The limited funding available to the DPFO has inhibited the potential scope

of its activities and impact on the sector. Previous applications for funding from various agencies, including the National Development Agency (NDA), were not well supported and as a result efforts to develop this branch into an almost autonomous service sector have fallen by the wayside.

The type of work undertaken by each of the sub-organisations differs greatly. The Egg Organisation will typically work on aspects such as egg packaging regulations, generic advertising for promoting egg consumption and addressing animal welfare groups' claims. The Chick Producers Organisation will, on the other hand, typically address aspects of importation and quarantine, international and national trends in breeding, accreditation of hatcheries, etc. The Broiler Organisation, again, works on aspects such as statistics, tariffs, imports and support for the Department of Customs and Excise provided through Agrilnspec.

Collectively, the Management Committee of SAPA will address aspects such as feed cost, diseases (non-competitive issues as they represent a common threat), food safety (through the Food Safety Committee), training, sector education and training authorities (SETAs) and events staged on behalf of the industry. Broadly speaking, marketing is left to each group or producer as it has been found to be a sensitive topic that causes division within the industry body which, in turn, negatively impacts on its capacity to function.

SAPA enlists advisors to assist with matters such as capacity development and addressing the more technical aspects, which cannot always be handled by company personnel. This is especially true when competition with domestic and imported products trims the margins of companies to such a level that excess personnel (even specialists) are laid off or have no free time or capacity to engage in outside activities.

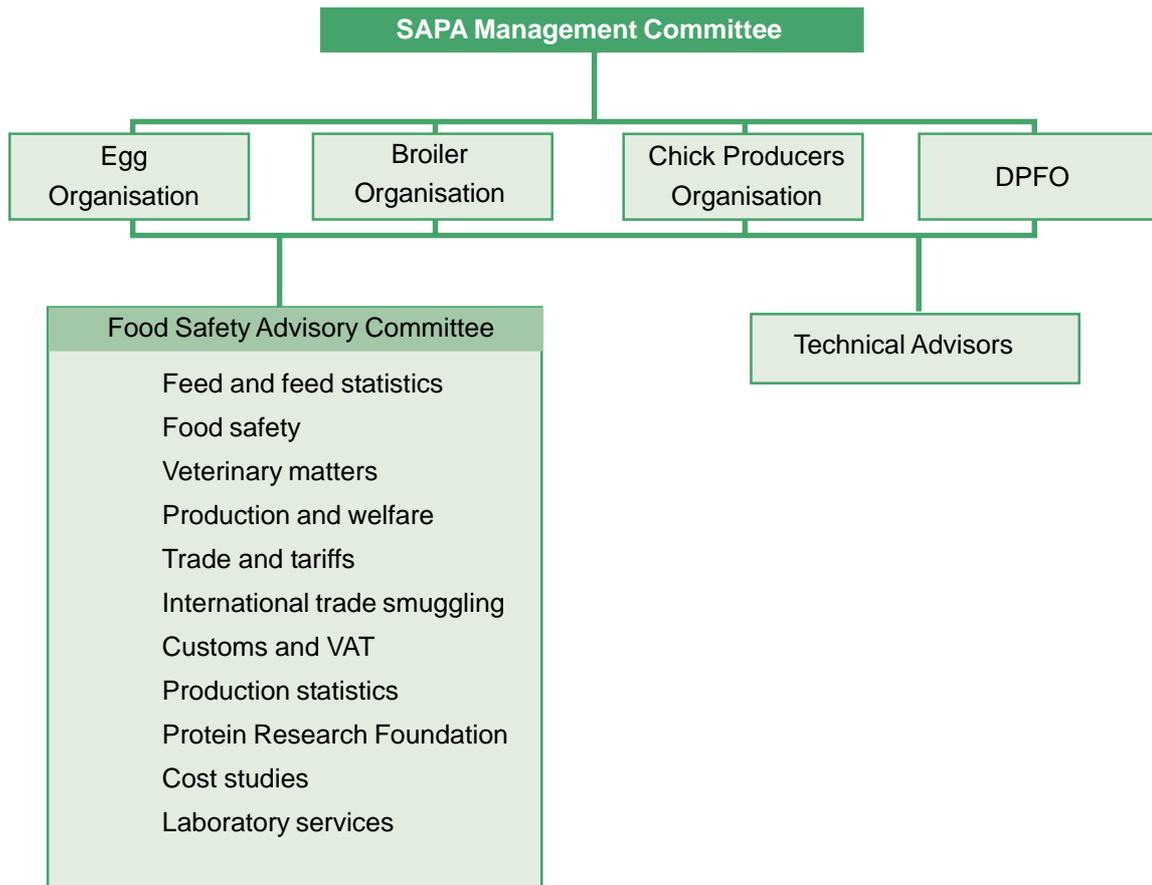


Figure 3 – Flow diagram of SAPA and its four sub-organisations

Source: SAPA Poultry Bulletin

2.3 Employment, skills and labour absorption

An estimated 74 000 people are directly or indirectly dependent on the poultry industry for income (SAPA 2006). This excludes dependants but includes a percentage of workers in upstream industries such as maize, as well as some downstream workers. The broiler industry is said to be responsible for the employment of 54 000 (or 73%) of these 74 000 people.

During the 1960s the fledgling poultry industry imported expertise from abroad. This expertise was then supplemented by the state, which actively provided support and training to small farmers. As the industry matured, the industry began to rely on locally trained staff to fill posts at higher levels of management, while lower levels of management were trained in-house. The Agricultural Research Council (ARC), as previously constituted in the previous political dispensation, greatly assisted the industry before 1995 through its efforts to accommodate researchers engaged in doing their master's degrees, after which they were normally bought off by industry. This practice frustrated the ARC's ability to serve the modern industry, although it did feed new talent into the system. In more recent years, the reduction of the ARC's budget for poultry specialist posts has caused this source of staff to dwindle to almost nothing.

Larger companies that are active in training do so only to lose the trainees to competition, in a “musical chairs” exercise. The new corporate production environment, in which companies become listed and owned by large groups (Astral, Afgri, etc.), has its own, new requirements which were not met by staff trained in the traditional way. All of this has added to perceived shortages.

It should be noted, furthermore, that more than 85% of the industry falls within the formal definition of SMMEs – even in the previous dispensation. These small producers are not geared to do effective training. Add to this the renewed interest on the part of state and developing agencies and the need for better trained people becomes obvious.

In general, the industry confronts a serious shortcoming in the non-availability of middle and high level staff (SAPA 2005). SAPA has, accordingly, devised the following training plan and strategy:

- Accredit SAPA as the leading service provider in training with a view to directing and facilitating training throughout South Africa – with preparatory training course content and presentations and administration structures to ensure that Seta funding could be accessed, with the view to coordinate and facilitate independent training and ensure quality of such training in the Poultry Industry.
- Establish and use the Training and Bursary Committee of SAPA to motivate the needs of the industry at AgriSETA and the Department of Labour, National Skills Fund, and other bodies that may be in a position to support and fund training for the poultry industry in South Africa.
- Develop the required screening instruments and methods for SMMEs and other levels of training to ensure a higher degree of success of trainees in establishing sustainable businesses and performance in their workplace.
- Facilitate training needs of the commercial and SMME sectors of the industry across the country to be self-sustaining over the medium term. Self sustaining in the sense that funding could be accessed via existing channels to be able to continue the ongoing training needs of this sector
- Maintain, establish and expand existing refresher courses and other training in which SAPA was previously involved.
- Identify and screen poultry training service providers, negotiate with them and promote their services as part of SAPA accredited training.
- Utilise funding from the financing authorities to facilitate and stage training at all service levels, with special reference to the needs of the commercial industry, using SAPA course material, existing service providers and all facilities that can be accessed to promote and stage courses of a high standard.
- See to the screening and accreditation of training service providers to ensure that only trainers of substance are accredited and enable their trainees to recover training costs from AgriSETA.

It is important to note that the development and training of developing poultry farmers requires a medium to long-term intervention programme driven by dedicated people and industry participants.

3 Markets and trends

3.1 Domestic production and imports

3.1.1 Value of annual turnover and investment

According to SAPA (2006), the poultry industry is the biggest or second biggest agricultural subsector, depending on the size of the maize crop. Figure 4 illustrates the relative sizes of some of the larger agricultural subsectors over the last several years.

The poultry industry is regarded as comprising the following:

- Day-old chick supply industry
- Egg industry
- Broiler industry¹

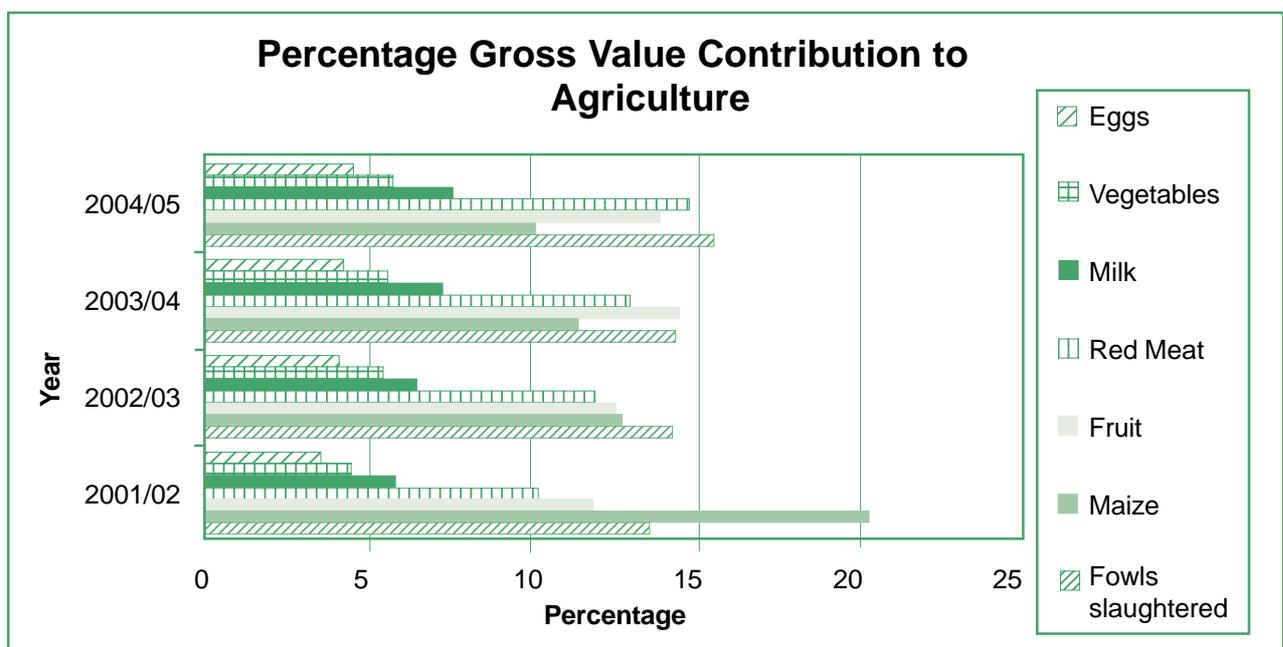


Figure 4 – Gross value of individual products

Source: DoA (2006)

¹ For our purposes, broilers are the chickens hatched from the eggs of breeders. These birds are grown purely for slaughtering purposes. The term “breeders” is used to refer to the parent chickens that produce fertile eggs, which are hatched to produce broiler chicks. Layers, on the other hand, are breeders which produce eggs that are sold directly as table eggs (Competition Tribunal 2005).

In 2005, the total turnover of the poultry industry was estimated (based on average production volumes and prices) to have been R11 282 million at the producer level. Of this, R8 693 million was generated by the broiler industry. At the retail level the poultry industry had a turnover of approximately R18 029 million, with the broiler industry contributing R14 532 million (SAPA 2006).

The industry is essentially cyclical. Major upturns depend on simultaneous augmentative cycles in aspects such as maize price, market demand (consumer spending), imports, exchange rate, health status and disease challenges. Extremely high cycles are experienced every 12 to 15 years and seasonal cycles show normal peaks in December and April. These annual cycles are forced down by imports during most years, excluding the very good market demand phase experienced over 2004/2005. It remains difficult to establish when these cycles will occur since most of the variables make a major impact. These variables include South Africa's openness to world trade and trends, international grain price movements, exchange rate fluctuations, international poultry disease scares, diseases in competing products, supply and demand trends (pork, red meat, etc.; domestic and international), economic phases frequently based on inverted US dollar strength, and climatic variables. This in turn leads to the typical "Hogg cycle" of "boom and bust". It would require extensive modelling to combine all the potential variables in one model for prediction purposes, and even with a large-scale model, forecasting the poultry cycle would be a daunting task. See Figure 17 which explains a few aspects in relation to price movements (Imports, feed price etc.) for an analysis of a limited number of variables (sales price, production costs and imports).

3.1.2 Production

The Livestock Improvement Act, No 60 of 1997, stipulates that only pure lines may be imported into South Africa (SAPA 2006). Pure lines are currently imported at great-grandparent level. Importing pure lines at the great-grandparent level means that the lag time in the expansion of commercial chick numbers is 18 to 20 months. The expansion time could be reduced to approximately six months if pure lines were imported at the parent stock level (SAPA 2006). Such a system would, however, undoubtedly stretch the bio-security risk with regard to imported diseases since importing greater numbers and more batches would certainly increase the number of vectors of disease transfer via this channel.

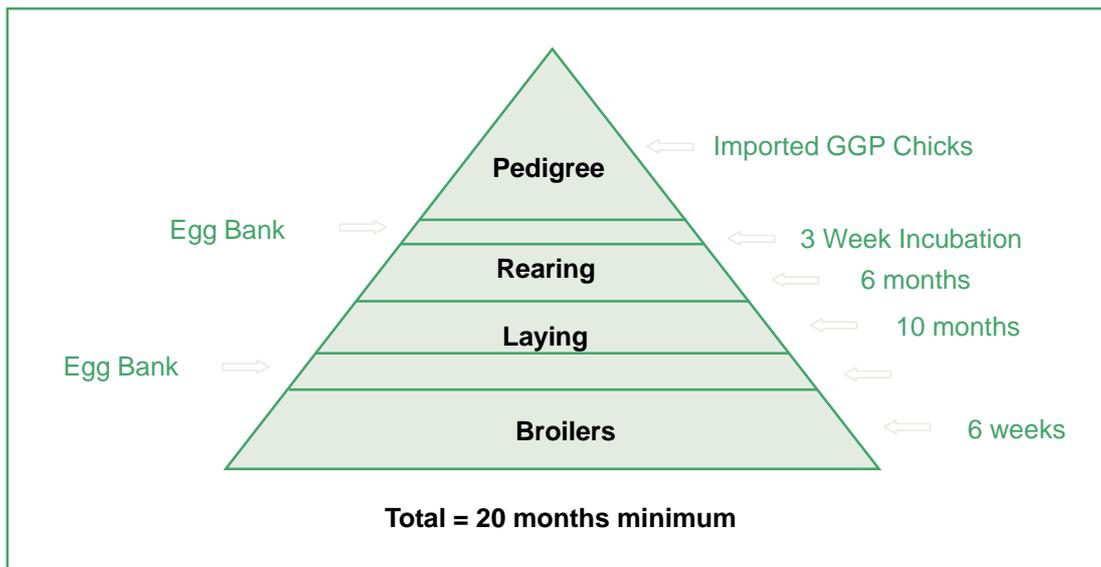


Figure 5 – Poultry production process and time to expand national flocks

Source: SAPA, 2005

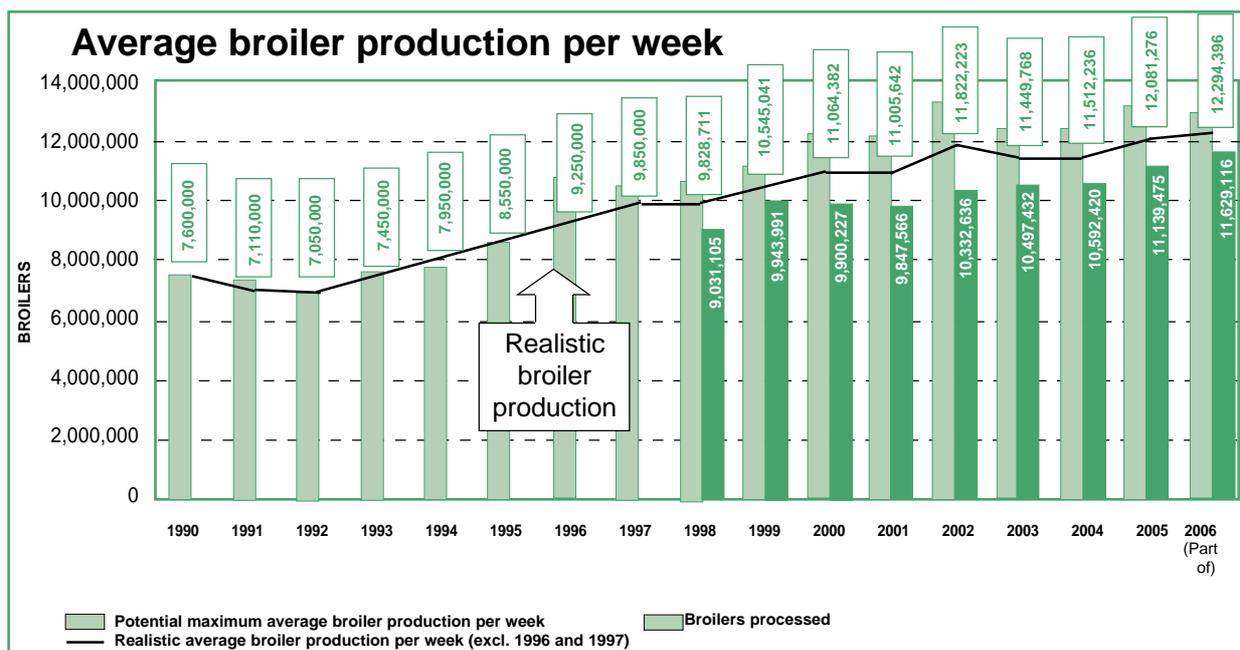


Figure 6 – Average weekly broiler production

Source: SAPA (2006)

Currently, 5.9 million parents are required to produce commercial progeny for the broiler industry from 37 000 grandparents and 4 000 pure line birds.

The availability of chicks to the industry at large is such that figures based on parents placed indicate that substantial oversupply is possible. Statistics show a steady increase in potential availability of commercial chicks, to the level of close on 12 million and more

per week. It is estimated that, in 2005, 12 million broilers were produced or slaughtered per week at 1.35 kg dressed mass, at 38 days of age and sooner. Of these, 1.2 million were in the informal sector.

As may be seen in Table 2, the average production cycle (time between placing of previous batch of day old chicks and the next) currently takes about six weeks with an added 10-day rest period for the poultry housing to be cleaned and disinfected and given a period in which infectious agents could die out. This is substantially quicker than the 8 to 10 weeks it took for a turnover in stock in 1968.

Table 2 – Changing length in production cycles

Broiler trait	1968	1998	2004
Slaughter age	62 days	42 days	38 days
Live mass	1.18 kg	1.79/1.86 kg	1.82 kg

Source: SAPA (2006)

It should be noted that these results have been obtained through the use of commercially imported bird breeds. Indigenous breeds are not regarded as commercially viable as they have such low productivity levels. There are also no reliable indigenous breeders in this field (DPFO & SAPA 2005).

3.1.3 Imports

Another important trend in the supply of broiler meat to South African consumers is the increasing market share taken up by imports (SAPA 2006). According to SAPA (2006), these imports have been largely attributed to exchange rate movements and have been responsible for the displacement of expansion possibilities in eight of the last ten years. The fact that cheaper cuts and offal are imported and sold into institutional and other markets adds to the indirect effect of these imports. The very buoyant market of 2004/05 has obscured the impact of imports – mainly from Brazil – to such an extent that, given the general disapprobation of protectionism and the free trade agreements (FTAs) established by South Africa, it seems unlikely that new protective duties will be instituted. Even if this were to happen, the FTAs would exclude protection against product from the areas they cover. The trend in increasing import volumes compared to local production can be clearly seen in Figure 7.

The exchange rate should, in theory, regulate fair international trade. It is, however, driven by many other variables such as inverse currency value and perceptions not based on facts – where facts hopefully should prevail as the driver. In other words, many distorting

vagaries of the (currency) markets obscure the effectiveness of the exchange rate as the regulator of all international trade. Broadly, however, international competitiveness is indeed determined by the exchange rate and the ability to supply products to another country in competition with world suppliers. As example: A weak rand can lead to high maize prices as the import parity price increases (depending on short supply of product domestically). The converse also applies under certain market conditions. Higher maize costs in comparison to those of other international poultry product suppliers reduce competitiveness and our ability to supply. This observation is made in an effort to find key drivers and indicators in regard to the poultry subsector. The industry is not dependent on the exchange rate as it has to recover input costs in the domestic market, but it remains a determining factor when considered retrospectively especially with the threat of international competition. Most of the ailments flowing from currency distortion can, however, be overcome if the domestic market is firm and can handle locally produced and imported product, at prices which can yield a substantial return.

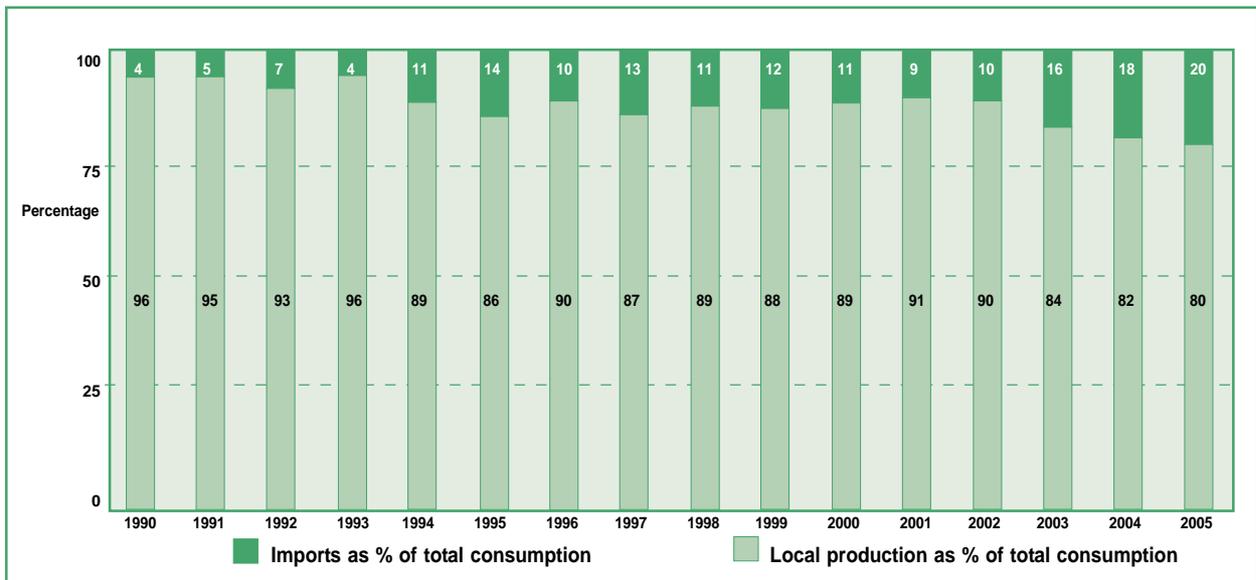


Figure 7 – Market share of broiler meat imports

Source: SAPA (2006)

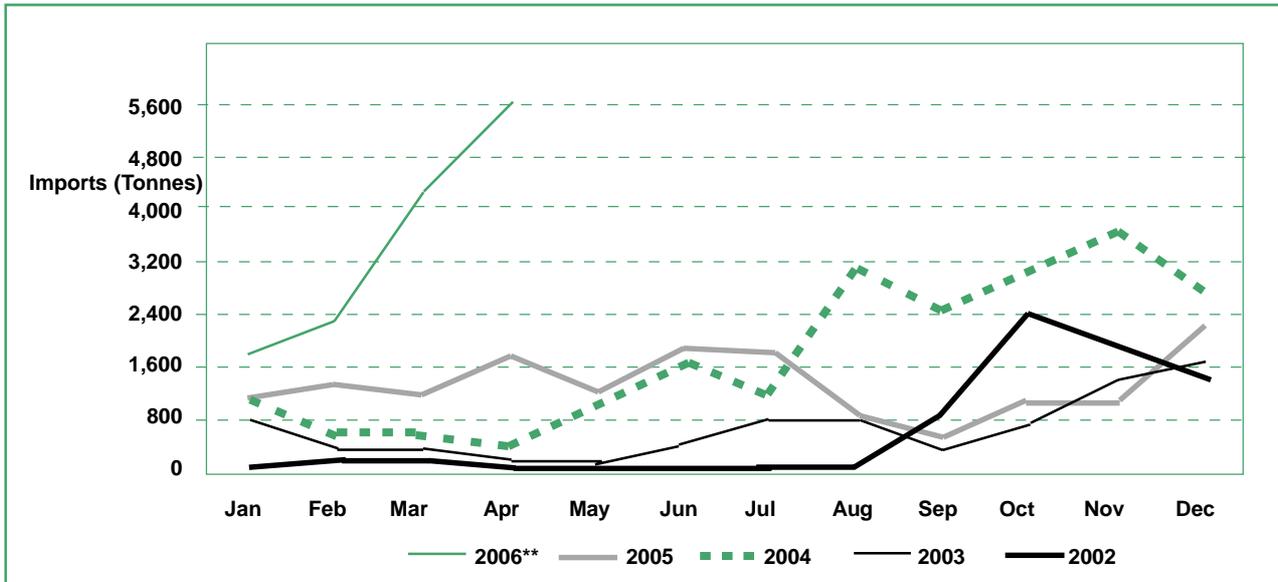


Figure 8 – Monthly imports of whole frozen fowls

Source: SACU database

**The 2006 values are based on January to April's values, which were extrapolated.

The current policies that protect the domestic industry from imports include a R2.20/kg import tariff on cuts and offal (bone-in portions) from any source country, a general ad valorem duty of 27% against imported whole frozen broilers and an anti-dumping duty on bone-in portions from the United States (US). This implies that an average of R2.35/kg is added to the import tariff (R2.20/ kg) on US imports falling under this tariff heading. The anti-dumping policy is currently under review.

The difficulty with establishing a “price” for imports that could be used for, say, the purposes of PSE (Producer Support Estimate) calculations, lies in the fact that the imports represent cheaper cuts and offal. Should the average declared price of imports (as per bills of entry) be used, the benchmark prices, besides being subject to understatement for a number of reasons, will certainly be well below the USDA (United States Department of Agriculture) or Urner Barry prices which are recorded in the US. No total carcass cost, unaffected by market and country specific downward influences, can be obtained with such a method. It is a better procedure to use US recorded prices as a basis, incorporating exchange rate and freight to a CIF (cost insurance and freight) figure for that purpose, to which the duties can be added. Table 3 clearly demonstrates the low level of declared prices (Free on Board (FOB) at R 3.62 per kg – excluding freight, costs and duty).

Table 3 – Declared free on board (FOB) prices of broiler imports

Tariff code	Description	Jan	Feb	Mar	Apr	Declared price
		2006	2006	2006	2006	
		Tonnes	Tonnes	Tonnes	Tonnes	
0207.1200	Whole frozen fowls	1 799	2 323	4 264	5 595	3.94
0207.1300	Cuts and offal, fresh or chilled	0	0	0	0	0
0207.1405	Frozen fowl offal excluding cuts (Mechanically Removed Meat)	5 281	4 484	4 416	4 567	1.04
0207.1410	Frozen (boneless portions)	2 162	1 982	2 014	2 451	7.94
0207.1420	Fowls offal	5 188	3 685	2 054	2 278	1.90
0207.1490	Poultry (bone-in portions) (leg quarters)	7 018	5 697	7 460	6 492	3.64
0207.2400	Whole fresh turkeys	0	0	0	0	0
0207.2500	Whole frozen turkeys	15	9	38	0	0
0207.2700	Frozen turkey portions and MRM	2 555	1 339	1 504	1 914	5.23
0207.3300	Ducks, geese or guinea fowl: frozen portions	0	0	0	0	0
0207.3400	Ducks, geese or guinea fowl: fatty livers, fresh or chilled	0	0	0	0	0
0207.3600	Ducks, geese or guinea fowl: whole frozen	0.011	7	0	0	0
	Other	0	0	0	0	0
	TOTAL	24 018	19 526	21 751	23 297	3.62

Source: SAPA (2006)

During the period May 2005 to April 2006, approximately 19% of the imports under tariff heading 0207 consisted of domestic broilers, turkey meat and offal consumption. The origins of these imports may be broken down as illustrated in Figure 9.

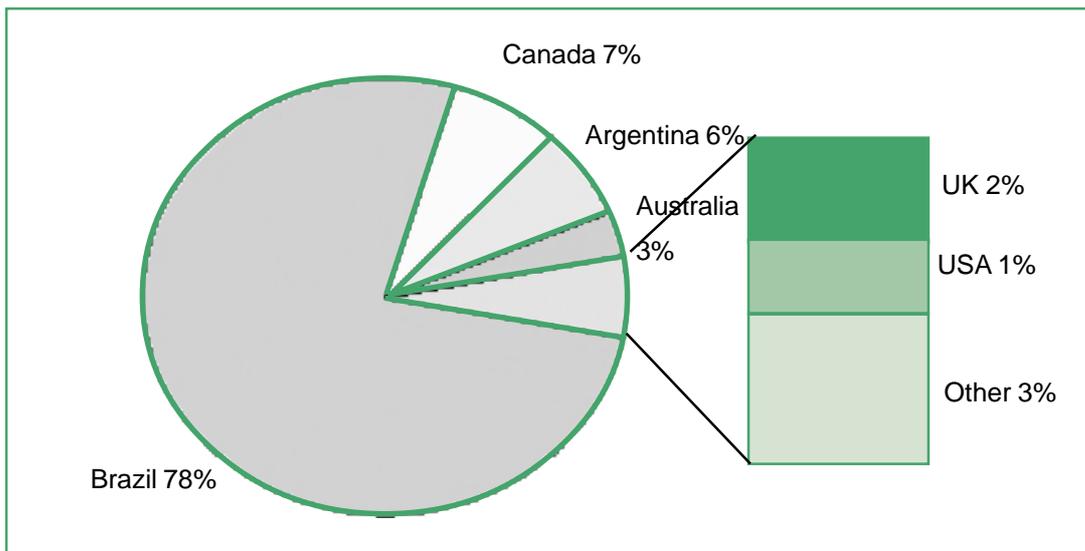


Figure 9: Origin of 229 913 tonnes of South African broiler meat imports – May 2005 to April 2006

Source: SAPA (2006)

Figure 9 clearly shows that Brazil is currently the leading exporter of broiler meat to South Africa. What is even more important to note, however, is the increasing volumes of exports from Brazil that have arrived in South Africa since 1999. This trend is shown in Figure 10.

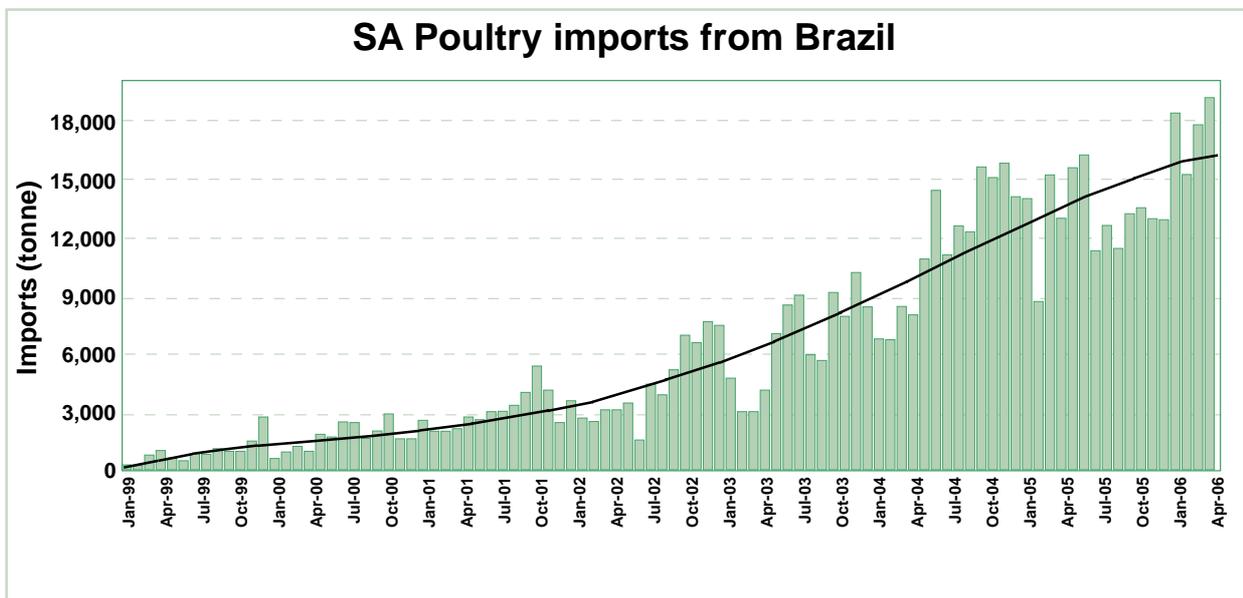


Figure 10 – Annual volume of broiler meat imported from Brazil

Source: SAPA (2006)

The rising levels of imports from Brazil have caused alarm among South African broiler producers, not only because of Brazil's perceived competitiveness in broiler production globally, but also because Brazil is targeting South Africa as an export destination (SAPA 2006). Factors contributing to Brazil's competitive edge include the following:

- Brazil's exchange rate dynamics
- The economies of scale it has attained
- Favourable climatic conditions
- Brazilian government support

The low production costs of other MERCOSUR countries, including Argentina, Uruguay, Paraguay and Venezuela (Wikipedia 2006), make them internationally competitive, allowing them to export poultry to other countries at a landed price well below the local producer price of designated countries, including South Africa.

Brazil's main line of poultry supply is frozen broilers and, according to SAPA (2006), it is only the present 27% duty on whole frozen broilers that is preventing these from flooding the domestic market. The introduction of an FTA between South Africa, Brazil and other members of MERCOSUR would result in a loss of protection for the broiler industry and would put South Africa's broiler industry at risk, should poultry be included in the FTA.

Another country which has aroused concern among domestic role-players is the US. As previously mentioned, an anti-dumping duty for leg quarters was instituted in 2000 to control imports from the US (see Figure 11).

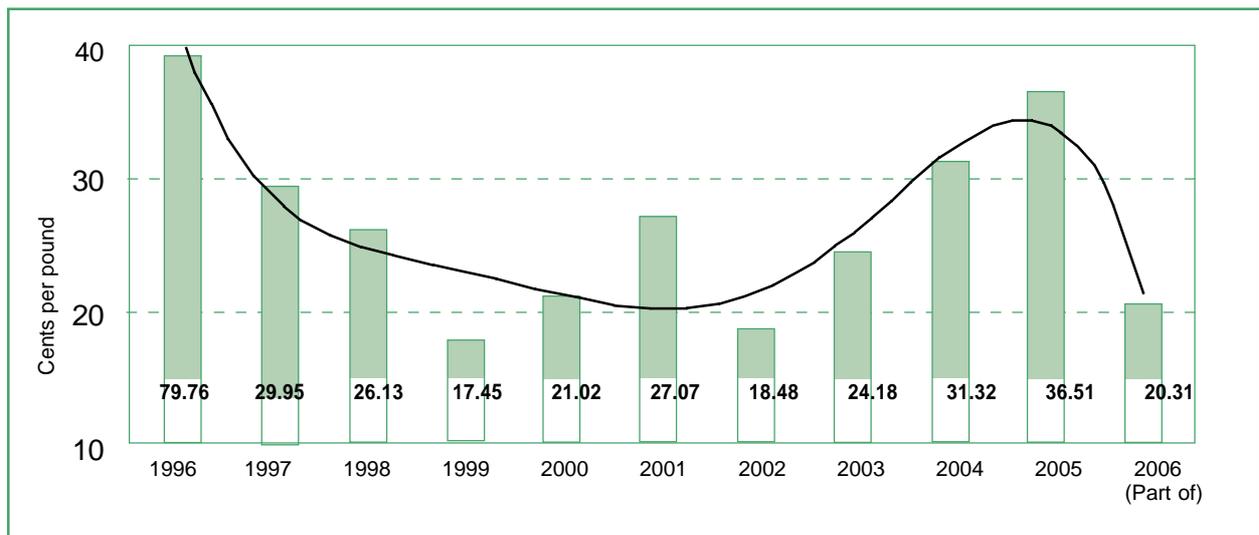


Figure 11 – Price of US leg quarters up to May 2006

Source: SAPA (2006)

In addition to the concerns surrounding legitimate imports, smuggling is a growing concern and has taken on special significance with the growing awareness of the threat of avian influenza (AI). Agrilnspec and the Customs and VAT Enforcement Caucus are involved in combating smuggling (SAPA 2006).

Previously the profitability of both commercial large and small-scale broiler producers was under pressure due to the increasing costs of production, the state of the economy and imports (SAPA 2005). Some commercial producers have subsequently started to invest in the production of value-added products in order to protect themselves against imports and to exploit or develop niche markets. Smaller producers may have to do the same, as it has been reported that the informal market for live birds is partially saturated (DPFO & SAPA 2005). The upswing which manifested itself during 2005 created a 15-year high in the industry (previously 1989/91). Pressure from the retail sector is indeed creating a (partially forced) system of HACCP (Hazard Analysis and Critical Control Point) and quality assured systems in the supply chain. This has intrinsic advantages as a protection against loss of markets, creating niches which would also be advantageous should major diseases break out, and fending off imports.

3.2 Domestic consumption and exports

Per capita consumption increased over a ten-year period, from 16.7 kg in 1994 to 22.41 kg in 2005 (34.2% increase), as can be seen in Figure 11. This increase was partly driven by the more than 20% of domestic supply which emanates from abroad and, of course, domestic expansion and further processed chicken supply. Future per capita poultry meat consumption is expected to increase if the population's standards of living and economic growth continue to rise. Poultry producers see their fortunes as being closely linked to the level of disposable income (SAPA 2006). This was proven right when the economy entered its boom period. The latest income elasticity reported by the Bureau for Food and Agricultural Policy (BFAP) for poultry meat is 0.58.

The average broiler production per week, as shown in Figure 6, indicates a straight average growth of just 1.8% per annum in domestic supply over six years, including 2005/06 – when the increases actually mainly took place. Expansion was placed on hold in the preceding period as imports took market share in a soft domestic market.

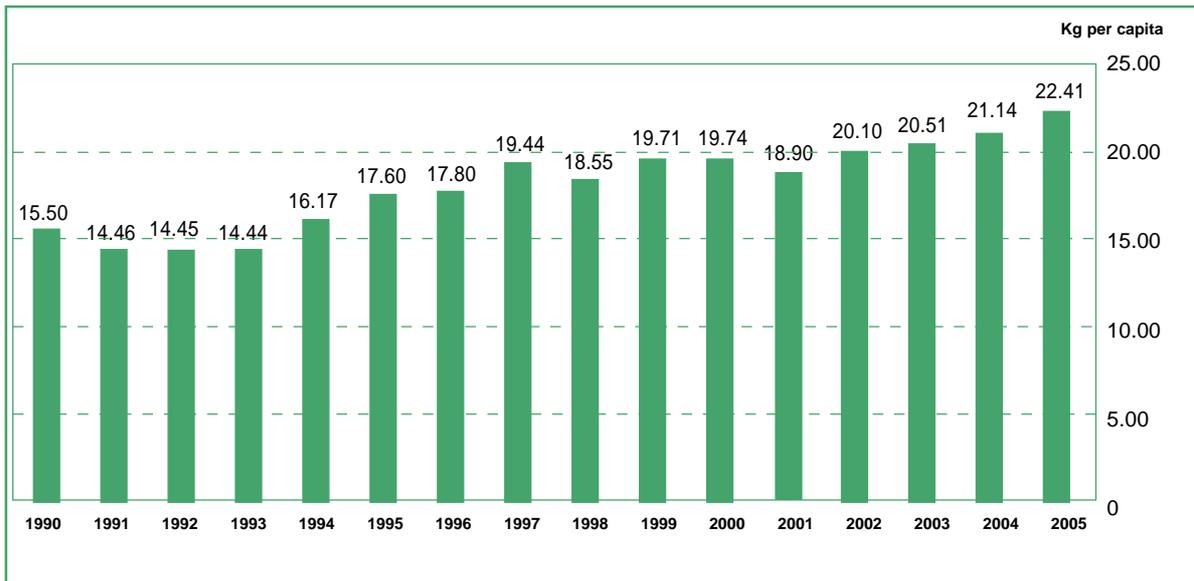


Figure 12 – The trend in per capita consumption of broiler meat

Source: SAPA (2006)

Poultry prices tend to follow red meat prices, with poultry prices normally following the red meat cycles, which are linked to the economic cycle as well as to climatic factors. The annual price cycles of the red meat and poultry industries normally reflect highs in Easter and December (SAPA 2006). Figure 13 illustrates the meat price cycles as well as the relative price structures generally exhibited in the meat industry.

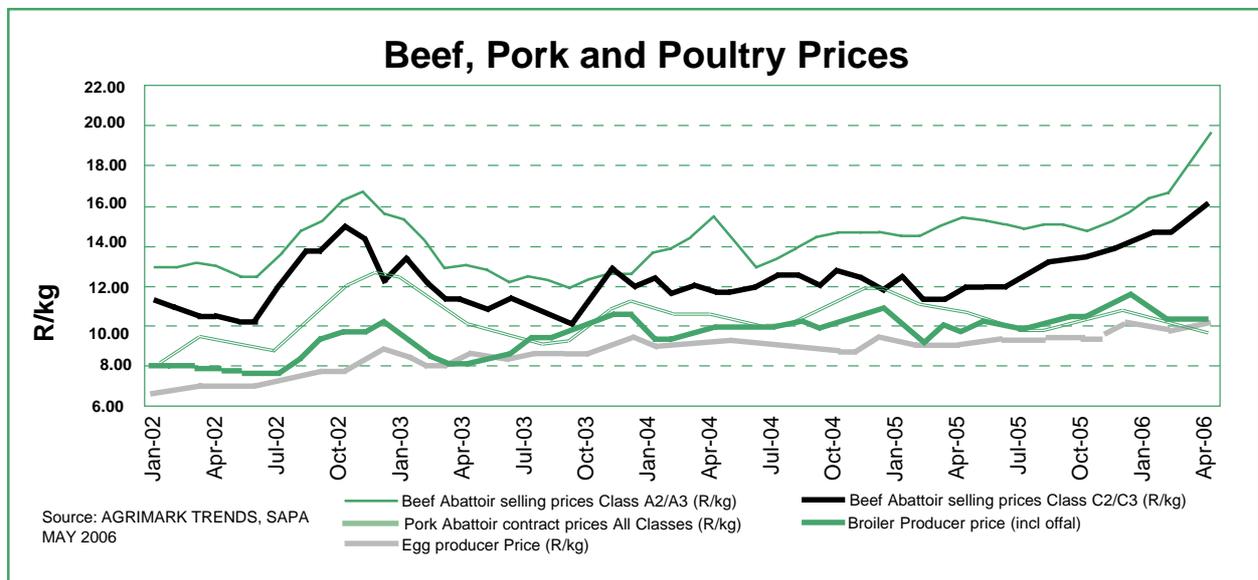


Figure 13 – South African meat producer prices

Source: SAPA (2006)

South Africa produces 85% or more of SADC’s broiler meat. This means that if problems occur in the South African broiler industry, it is only a matter of time before they flow into neighbouring states, possibly causing serious harm to their economies. The South African exchange rate is important in determining export volumes.

It is generally believed that a window of opportunity for South African exports exists with constant decline in currency value. In other words, when the currency devalues, costs (prices for maize, oilcake, etc., driven by import parity) are still factored in at the previous levels as stocks have been purchased at the previous lower price levels and other elements are hedged into the equation at previous lower prices. It takes 5 to 7 months for this effect to work through our system, with input costs then rising and eventually reducing competitiveness internationally. During this window there is a competitive advantage for exporting. If the rand does not depreciate in value again (or constantly) this opportunity closes or works through the system and South African exports reduce in competitiveness. Thus exports expand dramatically in a declining phase (2002) and reverse totally when the rand firms in value (2003) (see Figure 14). Export market development takes time (to establish oneself as a supplier in the world market) but reverses suddenly as domestic prices cannot compete when currency firms up. Niches may, to a degree, partly counterbalance this as can be seen from the 2004 figures depicted in Figure 14, where AI in the rest of world allowed an opportunity to supply discerning Middle East countries with KFC chicken cuts for a while, until the disease also inhibited our exports.

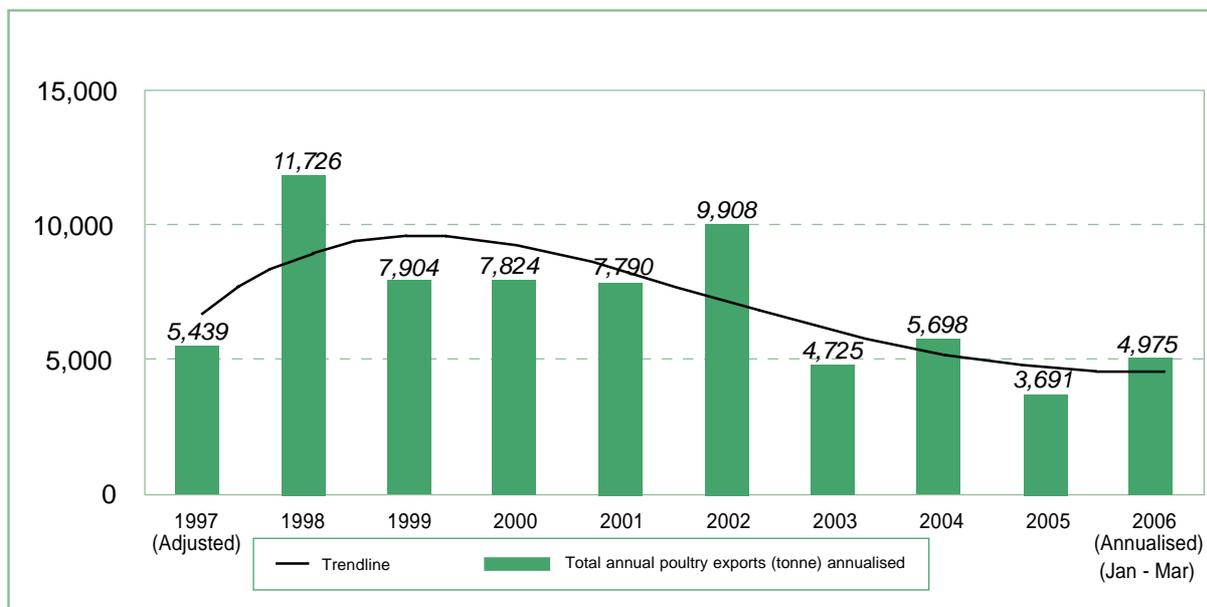


Figure 14 – South African annual broiler meat exports

Source: SAPA (2006)

3.3 Competitiveness

The SA broiler industry can be seen to be competing in two different markets. The first is the domestic market, where broiler meat competes with other protein sources for market share. The second is the international broiler market.

3.3.1 Competitiveness of the domestic market

In the domestic market, broiler meat is considered to be a substitute for other protein sources such as pork, beef and mutton. In Figure 13 one can clearly see that broiler meat has a considerable price advantage in competing for consumer spending compared to other meats. The substitution relationship between the meats is also visible through the interaction of the different meat price cycles.

The generic reasons as to why the broiler meat industry has a competitive advantage in the domestic meat market against other South African meat sources are as follows:

- Breeding progress: faster than other livestock due to short breeding cycle
- Nutritional progress: extensive research to reduce cost of production
- Health management: sick birds waste feed
- Bio-security: limits disease spread
- Contract farming systems currently in place: use capital resources more effectively and risk is shared
- Level of support given by suppliers: their vested interest in helping producers survive ensures full support to every substantial buyer of their goods, feed, or services
- Current level of training and knowledge of industry role-players: at times lagging compared to the rest of the world, but generally higher than many competing industries
- Performance pressure as a result of imports: forces improvements in production efficiency
- Performance pressure as a result of free market forces: price determines cost, not cost determines price
- Short production cycle of broiler compared to other livestock: leads to much faster genetic progress than other comparable industries

3.3.2 International competitiveness

On an international level the South African broiler industry has to compete with the performance levels attained in other countries. This is especially true for exporting countries where South Africa is a possible destination for their product. There are various performance criteria that one can look at in order to try and establish how competitive an industry is. The following section elaborates on the improvements in performance that have been attained by the South African broiler industry, by looking at a few performance indicators.

The Production Efficiency Factor (PEF) improved from 150 to 263 while international PEFs are constantly represented at between 270 and 300. The trend in PEF performance as well as in the feed conversion ratio (FCR) is shown in Figure 14. Notwithstanding this progress, expensive feed processed efficiently via a chicken still gives rise to an expensive product. Only if the supply of feed ingredients can become cheaper, and other production and market environmental factors coincide with that, can the poultry industry advance strongly – however, decreases in the price of feed ingredients occur cyclical and relatively far apart chronologically.

Disease has a large impact on the performance of broiler production, making good health management essential (SAPA 2006). In 1994 the mortality rate at the national level was estimated at 15% to 20% due to Newcastle disease, followed by a 8% to 10% rate in 1995/6. Efficiency improvements in broilers led to a 3% reduction in mortalities between 1995 and 1997 (SAPA 2006). Since 1997 there have been even greater improvements of this parameter of efficiency, which is now in the order of 4% to 6% (on a par with the US at 4%).

Along with feed conversion and intermingled with it, health and liveability represent the major technical drivers of production efficiency. The drive since 1996 to improve the mortality status of South African flocks led to drops in mortalities of close on 10% (13.6% to 3% to 4%), with concomitant improvements in competitiveness and profitability.

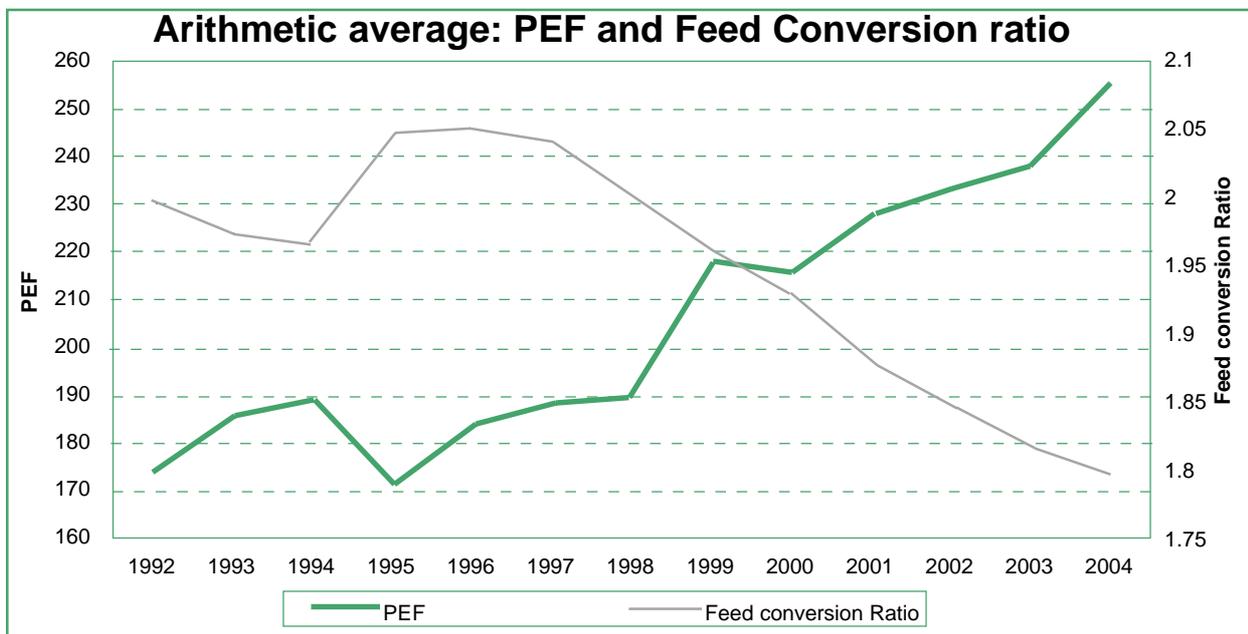


Figure 15 – Improvements in broiler production efficiency, 1992 – 2004

Source: SAPA (2006)

Another indication of broiler production performance is the relationship between the weight of a broiler and its age. The improvement in South African producers' performance with regard to the age–weight relationship is clearly indicated in Figure 16.



Figure 16 – Relationship between broiler age and weight

Source: SAPA (2006)

3.3.2 Limitations on poultry production in South Africa

There are intrinsic disadvantages for poultry production in South Africa, which prohibit it from becoming one of the best producers in the world. Aspects limiting the potential ability of South African broiler producers are the following:

- Low yield per hectare (and relatively high prices) of grains is a limitation, aggravated by the buffer effect of domestic and international freight and duty.
- A large portion of the poultry production done in South Africa is at high altitudes, which results in lower efficiencies being achieved.
- Culled birds (even those that are diseased) are allowed to move freely. Our cull layer sales can spread disease effectively and the practice runs counter to general bio-security rules. Its value is, however, such that supplying these birds as meat for the poor will not easily be stopped.
- Many informal flocks can act as disease vectors if not managed perfectly. Even if done well, the plethora of small units increases the statistical probability of disease spread.

- There are relatively unhindered (at zoosanitary level) imports of poultry meat from many countries. There is a strong perception among producers that imports are easily allowed into the country, but that any attempt to export is frustrated by very strict requirements, thus some efforts at export are seriously hampered by the meticulous requirements of animal and human health authorities. In contrast only a small sample of imports (1%) is reportedly being tested for a limited number of diseases – counteracted partly by the inspection and approval of supply abattoirs in the countries of origin.
- Feed has been identified as the main cost factor for broiler producers and a perennial problem area (SAPA 2006). This is despite the free maize marketing system. One of the reasons for this problem is the impact of high transport costs for raw materials via Spoornet's rail service, which substantially adds to the import parity prices of feed ingredients.

Despite the intrinsic disadvantages outlined above, South African broiler producers are in a positive competitive position with regard to SADC, with the exception of possibly two countries namely, Zimbabwe (under politically 'normal' conditions) and Zambia (SAPA 2006).

3.4 Market opportunities and future growth potential

Import price pressure and free market competition over the past decade have forced prices down in the poultry subsector and created greater demand due to lower prices. This has placed pressure on local suppliers and forced efficiency improvements (1989 to 1991 and 2005/06). The good market phase (2005/06) experienced recently has seen major expansions in poultry production capacity and the technology that is applied. This good market phase was driven by low feed costs and good chicken meat prices driven by the strong demand (see Figure 17), but hampered by disease (NCD and erosive effects of feed ingredients)

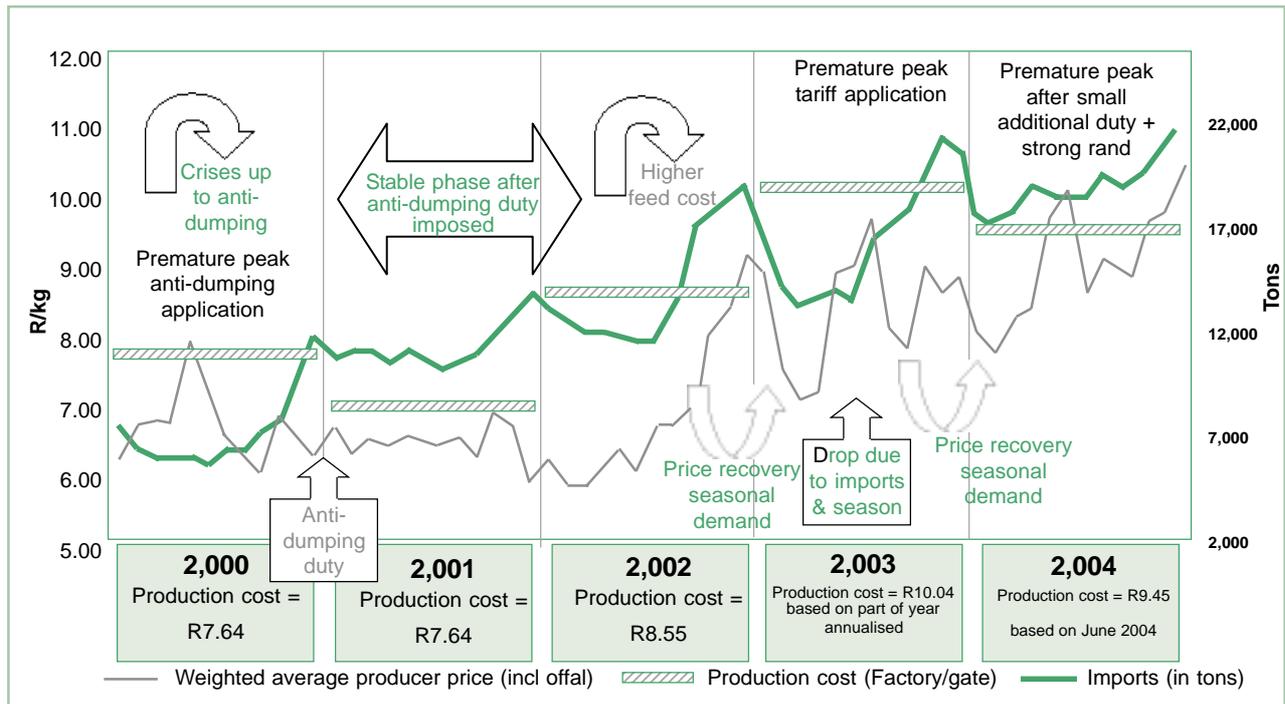


Figure 17 – Factors in domestic producer price formation

Source: Du Toit (2005)

In Figure 17, the impact of some the more important drivers in broiler production, such as imports and the cost effectiveness of production, are illustrated.

Some recently identified market developments are include:

- Value-added market development is pursued by most of the major producers, like Rainbow, County Fair, Earlybird and Rocklands.
- Flavour injection needs to be brought in line with international practices.
- SMME distribution can be expanded in outlying areas.
- SMMEs can supply inputs such as maize with a view to becoming part of the poultry production chain. This would, however, require small farmers to pool their crops to make up larger batches which can be delivered to feed mills in outlying areas.
- Within the larger groups, empowerment deals regarding purchase of shares and supply of services (transport, catching and movement of birds to abattoirs, etc.) have already been put in place.
- Broadly speaking, the industry will grow – even faster than other agricultural sectors – if the demand lasts and imports could be absorbed, evaded (with niche markets) or out-competed head-on (the latter is unlikely due to production cost disadvantages). Whether the rate of expansion will again equal the industry's initiation phase in the 1970s is to be doubted, for all the factors already mentioned in this report. Dramatic adjustments to the multitude of variables in the production and market environment could be very restrictive.

The need to modernise with regard to aspects such as HACCP systems, traceability and animal welfare requirements can build buffers against a number of the vagaries of the environment. The latest expansion (2005/06) cannot be blandly extrapolated as it made up for many years of (net) diminishing domestic market share.

3.5 Impact on other sectors/subsectors

The broiler industry is the final destination for the outputs of and supplies into various sectors. Without the existence and management of these upstream and downstream sectors no broiler company could exist. The upstream and downstream industries for the broiler subsector may be summarised as follows:

Upstream:	Downstream:
Day-old chickens	Retail
Feed and feed ingredients	Fast food industry
Laboratories	Informal trade
Poultry veterinarians	
Equipment companies	
Expertise and training	

3.5.1 Day-old chickens

Basic breeding material is sourced from Cobb (Rainbow), Ross (Ross Poultry Breeders owned by Astral), Arbour Acres (future supplier via Country Bird), Hubbard (future supplier – first pure lines imported) and Hybro (owned by Pioneer) and is multiplied before being made available to integrated grower companies and outside clients, including further multipliers.

Many multipliers, such as Eagles Pride, National Chicks and all those advertising in the popular media for farmers, make the chicks available to the public.

The cost of producing day-old broilers inhibits the constant availability of such chicks, especially when the market experiences an unexpected upswing (increase in broiler demand), and lag time prevents quick expansion. When layer chicken supply shortages arise breeders must decide whether to cut back on supplying to their own companies/producers or outside companies/producers.

3.5.2 Feed

Feed makes up 50% or more of the total production costs incurred by broiler producers. A large proportion (87.66%) of the broiler feed manufactured in South Africa during 2003/04 was produced by members of the Animal Feed Manufacturers Association (AFMA) (AFMA 2005). Table 4 gives an overview of the amount of broiler feed sales in tonnes by AFMA members from 2001/02 to 2004/05 (AFMA 2005).

Table 4 – AFMA feed sales (tonnes) from 2001/02 to 2004/05 (April – March)

	2001/02	2002/03	2003/04	2004/05
Broiler feed	1 800 973	1 921 470	1 943 709	1 999 399
Broiler concentrates	5 627	3 553	2 949	3 864

Source: AFMA (2006)

Major feed companies include Afgri (previously OTK feeds), Meadow Feeds owned by Astral and Epol Feeds owned by Rainbow. These three feed producers constitute well over 70% of balanced rations supplied in South Africa. Cooperatives, agribusinesses and farm stores only supply on a small scale.

The poultry industry is the single largest consumer of yellow maize in the country, with approximately one-third of the domestic yellow maize produced being consumed by the broiler industry alone. Yellow maize makes up as much as 70% of the mass and more than 50% of the cost of total feed. Its linkage to the currency value and domestic supply and demand and other factors as set out elsewhere in this report, makes it one of the main drivers of poultry production cost.

Over the past five years AFMA members have sold approximately 4 million tons of feed per annum, of which more than 70% was dedicated to the broiler, broiler breeders and layer industry.

The Grain, Livestock and Dairy model of the Bureau for Food and Agricultural Policy (BFAP) projects that if the chicken meat price increases by 10%, chicken meat production will increase by 2%, which will result in a 1.8% increase in the yellow maize price (BFAP 2006).

3.5.3 Laboratories

Both state and private laboratories provide services to the poultry industry. They are the following:

- State: Allerton; Stellenbosch; Poultry Reference Centre,
- University of Pretoria
- Private: Deltamune Services, Henderson, Allwright, Kloriga

3.5.4 Poultry veterinarians

In the order of 35 South African Veterinary Association (SAVA) members indicate their field of specialisation as being poultry. Some are employed by major producer companies, some are available via groups such as Avimune to serve a variety of producers and some are in veterinary supply companies. Others practice as individual consultants in private capacity for independent poultry farmers.

3.5.5 Equipment

Companies advertising in the Poultry Bulletin supply specialised poultry equipment, including the latest designs from abroad and some locally developed designs (a small percentage). Local designs are based mainly on developments abroad, especially in the US, Europe and Australia, where larger research and development budgets ensure that the best research and experience contribute to greater efficiencies in production. Differing views however exist on the need for full automation and the counter philosophy to production level automation is the approach of optimisation of returns, with lower stocking density, in less environmentally controlled housing, less medication and better returns

3.5.6 Expertise and training

The in-house training done by the larger producer companies supplemented by the following:

- SAPA (York Training Associates annual refresher courses)
- Tshwane University of Technology (Advanced Diploma in poultry – partly sponsored by SAPA)
- The University of Pretoria: Head of Veterinary Department part-sponsored by SAPA
- University of Stellenbosch
- University of KwaZulu-Natal – major nutritional department under Professor Rob Gous, one of the leading industry academics
- KwaZulu-Natal Poultry Institute
- Some technical colleges
- Voluntary study groups of producers within the industry

4 Current policies

4.1 Current policies and government support

FTAs could leave the industry vulnerable to the threat of low-priced or dumped product. Each new FTA at least binds the existing duty to its pre-negotiation level (even when excluded from the FTA). For example, if South Africa wishes to expand a duty against, say, Brazil, it cannot do so as the mere negotiation with regard to an FTA inhibits changes in the pre-negotiation levels.

There is a R2.20/kg import tariff on cuts and offal (bone-in portions) from any source country. A general ad valorem duty of 27% is levied on imported whole frozen broilers. In addition, there is an anti-dumping duty on bone-in portions from the US. This implies that an average of R2.35/kg is added to the import tariff of R2.20/kg on US imports falling under this tariff heading. This is under review (and should have been terminated at the end of 2005).

With regard to veterinary support policy, there is some tension between the national and provincial levels of government and a general shortage of staff in the national department to fulfil all the required services. A health management agency, funded by industry, has been suggested to address some aspects of this problem. The provinces need to handle some “national” aspects – such as AI breaks – but lack the capacity to do so. Lack of capacity at provincial level also results, *inter alia*, in differing levels of efficiency in carrying out export certification and applying general livestock importation standards.

SMME support under the Comprehensive Agricultural Support Programme (CASP) and the National Department of Agriculture assists very small-scale poultry farming, addressing a small degree of food security, but adding many disease vectors. Due to its almost indiscriminate application, it does not allow subsistence farmers to enter the mainstream of commercial production.

Government has according to reports in 2005 made available financial support amounting to some R13 million to boost black farmers in the poultry industry, via the NAMC and other Development agencies. However, this approach causes concern as it is seldom supported by a proper “resource centre” approach. The latter can go some way towards assisting the survival of a larger percentage of candidates. See Section 4.3

4.2 Other support

SAPA, in collaboration with the National Skills Fund (NSF), has established an independent industry body for small-scale black farmers, namely the Developing Poultry Farmers Organisation (DPFO).

Other donors and support groups include the United States Agency for International Development (USAID) and a number of NGOs.

4.3 Status of the empowerment process and impact on the broiler industry

The importance of the poultry industry in South Africa makes it an ideal candidate to introduce previously disadvantaged individuals and groups into the mainstream economy of the country. There are however significantly different estimates of how large the current contribution of SMMEs and subsistence is. According to SAPA (2006) the contribution of SMMEs to the poultry industry in South Africa currently stands at less than 3%, with some 414 farmers registered with DPFO as members. SAPA (2006) estimated that in 2005 there were 1 795 broiler producing SMMEs in total. This means that although approximately 80% of the owners/ managers of broiler producing firms in the broiler industry are SMMEs, in the strict sense of the term, only contribute 3% of the national amount produced. The National DoA, on the other hand, estimates that 32% of national broiler production in 2005 can be contributed to SMMEs and subsistence farmers, in the livestock section of the Sector Plan for Agriculture (SAPA 2006). The actual number of informal subsistence farmers is not currently known.

The financial feasibility of small-scale poultry farming, and the involvement of labourers as workers in these operations, makes them ideal candidates to contribute towards food security for the very poor. As these enterprises grow, they could contribute towards the alleviation of poverty.

Commercial company black equity empowerment deals include companies like Nu Laid Eggbert, Rainbow, Earlybird, Country Bird and Serfontein (Amber Link layer bird supply). According to an article in the Business Day (2004), an NAMC report has indicated that major investments by the government to boost black farmers in the poultry industry have failed. In spite of the more than R13 million invested, many black farmers have failed because they lack business skills. The NAMC report, tabled before Parliament, indicates that a lack of business skills was the predominant factor contributing to these failures. However, both small-scale farmers and extension officers of the DoA need training in

other aspects as well, such as the interpretation and use of market information, technical aspects of poultry production, hygiene and standards, quality control and value-adding techniques.

The approach adopted by some development agencies – Loopspruit Mphumalanga - of organising poultry farmers into larger groups who farm collectively also does not seem to have brought about the expected benefits. The larger the farming groups the more numerous the conflicts between the members.

4.4 Evaluation of whether subsector issues are being adequately addressed

DPFO of SA Poultry Association has identified in their workshops the following issues that need to be addressed as part of its constitution and mandate from its members:

- Securing profitable production to ensure sustainability of projects
- Facilitating, lobbying and communicating with provincial government agencies
- Encouraging interdepartmental stakeholder communication
- Bringing suitable training programmes to the SMMEs
- Establishing resource centres in each region to ensure sustainable egg and broiler production in the area
- Collectively addressing input costs
- Promoting access to finance for members
- Collating and disseminating market information
- Considering market development strategies to give members better access to markets
- Protecting the developing poultry and egg industry from adverse legislation

Dr Ed Wethli indicated, in a report published in the *Poultry Bulletin* of February 2004, (Wethli 2004) that the majority of problems encountered by small-scale chicken farmers centred on land tenure, funding, business planning, training and technical assistance. He also highlighted the potential benefits of working together collectively- **such as access to support structures and collective buying of inputs**

As already mentioned in this report (see Section 3.3.2), there is a perception among producers that there is a disparity between import and export **zoosanitary** standards. The same stringent standards should be implemented for the verification of imports as for exports.

Another perception among industry role-players is that the importance of the poultry industry in the South African economy is not recognised.

Role-players are also of the opinion that the international movement towards the reduction and removal of tariff protection as a measure to protect industries is beginning to influence decision makers within government, as it is becoming increasingly difficult to achieve protective duties on poultry in South Africa. Such duties are still required for the sake of, especially, the smaller farmers, to manage extreme product price fluctuation, which is one of the outcomes of oversupply due to excessive imports or direct price undercutting – often also a result of imports. The removal or lack of protective duties does not favour the industry, particularly the smaller sector in poultry production, which will find it difficult to survive because of diseconomies of scale, lack of expertise and other factors such as limited or no access to capital. The mere maintenance of specific duties – such as the anti-dumping duty which is fixed in a currency – erodes the effect over time. The plethora of FTAs also excludes the latest negotiating countries from new duties – which suggests that the time of duty protection is fast coming to an end. Duties should, however, be kept in place for as long as possible to prevent a head-on cost confrontation of the South African product and cheaper imported cuts and surpluses. This would assist in maintaining space for both large and small South African producers and avoid negative impacts on the degree of food security afforded by the poultry industry to the South African population.

5. Constraints and challenges, especially pertaining to SMMEs

5.1 General

The factors constraining production expansion in the South African broiler industry may be divided into two categories: those that constrain the expansion of already established large commercial firms and those constraining the development of SMMEs. Low-priced imports, South African sanitary and phytosanitary (SPS) standards as well as exchange rate fluctuations are listed among the factors affecting large commercial broiler producers.

It is important to realise that if the large commercial producers cannot operate on a sustainable basis within the current business and regulatory environment, SMMEs will not be able to either. This is because the competitiveness of broiler production is significantly affected by economies of scale.

The bearing that economies of scale have on broiler production is clearly illustrated in Table 5 and the discussion that follows, which show that the feed and chick cost per kilogram of live bird differ markedly for the small farmer sector and the commercial farmer sector.

Table 5 – Indicators of current constraints on SMME expansion

Key performance factor	Small farmer sector	Commercial farmer sector
Day-old chick cost(rand)	2.98	1.73
Price per kg feed(rand)	2.83	2.15
Mortality rate(%)	7.85	5.04
Age of broilers(days)	42.30	38.24
Average live broiler weight (LBW)(kg)	1.76	1.78
Feed conversion ratio (FCR)	2.43	1.77
Feed cost per live broiler kg (LBW)(r/kg)	6.34	4.40
Rand sales per LBW kg(rand)	14.34	N/A
TOTAL cost per LBW kg(rand)	12.39	6.32
Profit/loss(rand/kg)	1.49	N/A

Source: DPFO & SAPA (2005)

5.2 Chick costs

The cost of the day-old broiler is 172% more for SMMEs than for the commercial farmer for the following reasons:

- High mortality rates – management related
- Poor feed conversion ratio during the growing period – management related (Better skills with regard to mortality can reduce the period that birds have to be fed.)
- Worsening of the FCR if birds are held longer than the optimal age when waiting to sell them into a live market
- A lack of expertise during brooding (Ventilation, feed and water management and temperatures, for example, are crucial factors hampering efficiency.)

5.3 Other aspects

Extension officers need training as their present knowledge levels are not sufficient to assist upcoming producers.

There is currently no rail transport of day-old chicks, which increases the cost of delivery. Historically the poultry industry was established with the help of cheap transport of day-old chickens, even to outlying areas and farms. This service afforded small players the opportunity to access this essential production factor. Since these Transport Services ceased in the 90s, small producers – namely SMMEs and PDIs – are forced to purchase from less than reliable sources. Some of these may even offer them layer cockerels as broilers, to the detriment of the survival of these farmers and organisations as bad quality chicks set back small producers and totally eliminate their capacity to produce. A cheap, reliable transport system is essential for this and many other aspects of poultry farming. Cessation of the service previously available has favoured larger suppliers whose size justifies dedicated delivery systems.

Layers are difficult to rear and it is therefore advisable to use point of lay (pol) hens, which are already reared and vaccinated. The cost outlay is, however, bigger.

Orders for day-old chicks and other inputs need to be placed at least four weeks before required, as short notice orders which are not met lead to repeated accusations of deliberate intent not to supply certain sectors of the industry – to the extent of enquiries even from the State President's office to the Poultry Association.

5.4 Feed costs

Feed prices differ significantly between commercial and small-scale farmers. The main reasons for the differences may be summarised as follows:

- Prices differ from month to month and between different feed companies. This is a normal industry occurrence which is driven by, for example, procurement, hedging and distribution. Farmers have to shop around to get the best prices or buy collectively in a resource centre approach
- The larger the distance that the feed has to be transported the higher the cost. Many SMMEs produce at more remote locations.
- The volume of feed transported also affects the price as smaller loads will cost more per ton and the bigger users will get larger discounts. At least R80/ton is, for instance, added to the price of feed that is bought in bags compared with feed delivered in bulk.
- It is also important to note that the financial situation of farmers plays a role in the cost of feed. This has also been identified as a major obstacle as many developing farmers do not have the financial skills or the collateral required to provide the cash flow necessary to buy feed. This means that the feed manufacturer accepts a greater risk and the farmer pays higher prices.

5.5 Finance

When small-scale farmers start looking for financing, especially from the commercial banking sector, they invariably find that the following prerequisites or risk mitigating factors must be complied with (DPFO & SAPA 2005):

- Entrepreneur presence – constant presence in business
- Experience
- Mentorship non-negotiable
- Contract or continuous take-off agreement
- Ability to meet supply contract
- Constant monitoring or evaluation of project
- Joint venture with established organisation
- Screening of candidates
- Membership of SAPA

5.6 Health control

Health control is mainly a function of management and access to veterinary services.

A lack of good farming structures and practices or substandard management is normally mistaken for health problems. The perception in the industry is that general management is accountable for 85% of health control, while the remaining 15% can be accounted for by disease control.

The importance of management in health control becomes apparent when one understands that the following are just some of the aspects that the producer must take care of (manage) in order to ensure that his/her broiler flocks remain healthy:

- Feed source must be available from the outset.
- Vaccines must be available.
- Bio-security risks must be managed.
- Continuous observation of the birds is necessary in order to read the signs and pick up possible problems as early as possible.
- Records must be kept of all the conditions in order to be able to analyse what the cause is when things go wrong.
- Feed and water must always be present and proper brooding must be allowed for.
- Flocks must be a single age in order for effective costing and marketing to take place.

Diagnostic services must be available. This is a problem for small-scale farmers as state veterinarians are either not trained in poultry or available when needed.

5.7 Marketing

In order for small-scale farmers to market their product they must have entrepreneurial skills. This message is clearly illustrated in an article entitled “Marketing is more difficult than other aspects” that a small-scale poultry farmer named Timothy Zulu recently wrote for the industry’s monthly publication. It highlighted the fact that, aside from any other obstacles, he experienced a “culture of buying in town” and class consciousness that he had to overcome in order to sell his product (Zulu 2006).

5.8 Training

Small-scale poultry farmers’ current lack of technical skills is a major concern and requires serious attention. It is felt by a variety of developmental agencies and the Developing Poultry Farmers Organisation that training in production management financial management and marketing is of particular importance.

5.9 Organisation

Organisation of small-scale producers is important because it creates an opportunity for members to get together regularly to discuss key survival issues such as mortality rates and selling ages. Such groups could meet once or twice per month.

5.10 Support structures

Support structures offering aftercare such as resource centres are regarded as being of crucial importance. It is also felt that government does not currently have the people with the right skills to provide the required support. In particular, extension officers and veterinarians need to be trained as specialists in poultry production and health.

Existing depots and chick distribution centres need to be identified, mapped and advertised. The technical staff employed at the depots will be able to assist with regard to training small scale farmers.

Communication needs to take place in the language of the small-scale farmer.

5.11 Mentorship

Mentorship is required in order to upgrade the skills and support needed to a specific standard.

6. Opportunities

6.1 Possible policy interventions/levers

6.1.1 Trade

The tariff levels as well as SPS standards are important factors in maintaining the competitiveness of the South African broiler industry.

Tariff rates need to be reviewed and adjusted as deemed necessary. Anti-dumping clauses need to be maintained in both bilateral and multilateral agreements. The current view within the broiler industry is that the R2.20 tariff on cuts and offal (bone-in portions) needs to be maintained (SAPA 2006).

The anti-dumping duty against US bone-in portions came under review in 2005. The maintenance or increase of this duty is seen as important by industry role-players as a previous application for an increase in the duty levels was denied, after which imports grew exponentially (SAPA 2006).

Disparities in SPS standards can have a negative impact on the sustainability of the industry. The strict SPS rules of possible export destinations are also hampering trade. At present South Africa cannot export to either the European Union or the US (SAPA 2006).

6.1.2 Poultry health

Health diagnostic services need to be made available to broiler producers. There are currently very few veterinarians available in outlying areas, and state veterinarians are not trained in poultry. The provincial authorities in charge of animal health should have specialist poultry veterinarians and animal health technicians to ensure good bio-security, vaccination and production guidance and thereby alleviate the risk of unnecessary disease transfer via less bio-secure production units

State veterinarians and extension officers could, however, be more intensively trained in poultry management through the selection of a smaller subgroup which could be trained with the help of industry experts. These veterinarians and extension officers would then be able to assist small broiler producers. This would assist the industry to move from a more reactive health control and disease stance to one that is more proactive.

Technical training of SMMEs, using funding from the NSF, would also make a considerable contribution to supporting the health and performance of the broiler industry (SAPA 2006).

6.1.3 SMME development

The industry has developed a plan for assisting SMMEs to attain commercial profitability. This plan is based on the use of resource centres with a cooperative structure. A brief description of the proposed resource centres is given in Section 6.2.

Further training and the acquisition of skills by SMMEs is crucial to their success.

6.2 Possible market entry points for newcomer farmers

There are various points of entry for empowering newcomer farmers (DPFO & SAPA 2005), namely:

1. Contract growing
2. Empowerment purchases of existing operation's farms by workers
3. Strategic partnerships – not for beginner farmers
4. Resource centres

Items 1 to 3 have all or most of the required support structures, but are extremely limited in terms of availability (DPFO & SAPA 2005). There are, however, prerequisites in all cases when looking at the requirements stipulated by banking institutions. The prerequisites (risk mitigating factors) for financing as identified in a DPFO workshop in 2005 are listed in Section 5.5.

According to the outcomes of the 2005 DPFO workshop, the shrinking of the formal market because of imports may be limiting the potential for empowering newcomer farmers. Imports have previously resulted in price drops and the closing of operations. Another limiting factor mentioned during the workshop was that the informal market (live birds) is partially saturated.

6.2.1 Contract growing

The following are some of the requirements that need to be met in order to become a contract grower:

- The operation must be owner managed.
- The grower must be able to produce 90 000 to 100 000 birds/cycle.
- The property should be isolated, with good access roads and electric fencing if possible.
- The producer has to have the right equipment, including a roof, cooling and drinking systems, automatic feeding, PVC curtains, concrete floor, lighting, heating and storage.
- Bio-security is essential and security measures including HACCP, footbaths and showers have to be in place.
- Guarantee and surety: the principal contributes R7 per bird as working capital as it is by virtue of supplying input costs elements and only recovering it at end of each cycle and by supplying other support services and cannot also grant surety to banks as it would also imply that the full operational risk lies with them.
- Contract growing offers limited opportunities. There are still some opportunities available for 1 000 to 10 000 bird/cycle producers.
- The buy-out of existing contract growers offers better opportunities with less risk.
- To be successful, contract growers must be among the lowest cost producers.

Financial institutions should not only finance established large commercial contract growers.

6.2.2 Empowerment purchases

Individual circumstances will dictate, when and how often and which companies will participate and how the contracts will be designed. Such deals usually involve a going concern where most prerequisites are met (DPFO & SAPA 2005).

6.2.3 Strategic partnerships

Individual circumstances will dictate. The same prerequisites will apply.

6.2.4 Resource centres

A resource centre is essentially based on the concept that central distribution points will allow farmers to organise into buyer groups or small cooperatives in order to gain the necessary economies of scale to bring input costs down, for example through lower distribution and handling costs of feed.

A resource centre could consist of ten commercial farmers and 20 to 30 trainees at 200-bird level. This can also tie in with the CASP concept where funding is available from the state to assist people to progress. It is envisaged that a resource centre should carry out the following functions:

- Extension work can be coordinated.
- Sourcing of first grade broiler chicks can be done collectively.
- Higher specification feed could be sourced at a better price through collective purchasing.
- Single age flocks with an “all-in all-out” system can be kept, minimising bio-security risks.
- Affordable veterinary advice could be sourced by the cooperative in order to facilitate the making of diagnoses, prescribing vaccination and medication programmes as well as promoting the prudent use of antibiotics.
- Government veterinary services could also be involved to a larger extent with these cooperative farming units.
- Marketing could be done in a collective way, leading to greater bargaining power for the producers and quicker sales of live birds, which could reduce the time birds are kept/housed and fed and thereby reducing their propensity to develop health problems.
- Collective sourcing of capital for improving facilities could be done.
- Mentors could be appointed by the state or cooperatively. A possibility would be to have one poultry specialist employed by farmers, the state or suppliers. Generally, producers are opposed to the use of state animal extension officers, as they are perceived to function ineffectively. What is required are first-rate poultry specialists whose main purpose should be to improve the management skills of developing farmers and whose service would involve regular visits and farmers’ days. It is therefore believed that these specialists should be engaged in private enterprise rather than state employed. It would be important to draw a profile of such a person and find methods to select and finance such structures. This could be done per region or resource centre and costs could be allocated and requested from the state and contributions made by input suppliers. Other funds could possibly be obtained from institutions such as the Foundation for Farmer Development, Maize Trust and provincial departments of agriculture and whichever agency functions in the field of farmer development.
- Resource centres should activate and see to the training of small-scale farmers with the assistance of chick, feed and other input suppliers as well as state support structures. Colleges, extension officers, animal health technicians and state veterinarians could also be involved.
- Study groups should be formed to ensure ongoing training.
- Donors for basic production structures should be sourced with SAPA.
- Candidates from ranks of very small “trainees” should be identified.

In order for the resource centres to work it is argued that candidates need to go through a screening process. The screening process is seen as a way of increasing the chances of a candidate's survival in the more commercial environment. Some of the criteria that have been identified for allowing entry to participants are as follows:

- A participant may not be an unemployed person who will try anything for a job.
- A participant must be earning an income from farming with chickens.
- He or she may not be a family member of a person nominating a candidate for training or financing.
- He or she should have previous business experience, for example in the taxi or spaza trades.
- He or she should have at least a grade 10 level of education, with language proficiency for training purposes and professional activities such as teaching. The participant must also exhibit self-discipline.
- A participant must have a passion for farming with chickens.
- Having previous working experience on a poultry farm is considered positively.

A word of caution regarding the resource centres:

- Control and accountability are problematic in a cooperative/resource centre structure.
- There is still the question of who will be responsible for establishing and managing the buying groups. It is currently thought that government could play a major role in this regard, but it also recognised that the developing farmers must also be proactive.

7. Conclusion

The broiler industry is, and is expected to remain, a volatile and dynamic production and marketing field with increasingly cumbersome and demanding retail requirements. Where production influences include (1) major market swings (say every 15 years, with minor cycles in between), (2) major movements in ownership and management, which occur rapidly and frequently, as well as (3) major threats, opportunities and exposure to occurrences in the international arena. These factors, together with economies of scale, also compel the industry towards automation and larger units of production.

The volatility and increasing retail requirements mean that smaller and smaller competitive advantages contribute to the survival of enterprises e.g. low cost production (internationally and domestically) and production for specific market niches (domestically). This means

that only (mainly) the producers with the better knowledge, experience and equipment, will survive in the commercial sector

Within the broiler industry, there is however place for small scale producers – but only with support structures to assist in the production side of the equation. Marketing becomes and remains an individual challenge and is not easily done collectively, except where a strong entrepreneurial individual is willing to share his talents with a group.

Based on the information given above, the RSA poultry industry, including the egg and broiler industries, can be seen to have a moderately positive future expectation as a sustainable protein supply industry.

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