



The Broiler Industry

Introduction

This paper is divided into two sections. We will discuss broiler marketing in South Africa followed by a review on egg marketing.

Overview

Statistics

The broiler industry in South Africa contributes to economy in the following ways:

- Gross producer value of the industry is over R5 171 million per annum.
- Employs approximately 57 804 staff in the formal sector and main input supply industries.
- In 1999 broilers produced / slaughtered per week amounted to 9,8 million birds.
- Per capita consumption increased over ten years from 15,5 kg to 18,5 kg (an increase of 19 %). (See Figure 1.)
- However, 10 % of the industry is under judicial management, liquidation or already closed.
- The broiler industry contributes 16,2 % to the total gross value of agricultural production.
- A small number of large producers constitute the formal sector of broiler production. These large organisations handle approximately 80 % of the total broiler production, while the informal sector produces the remaining 20 %. (See Figure 3: Market share diagram.)

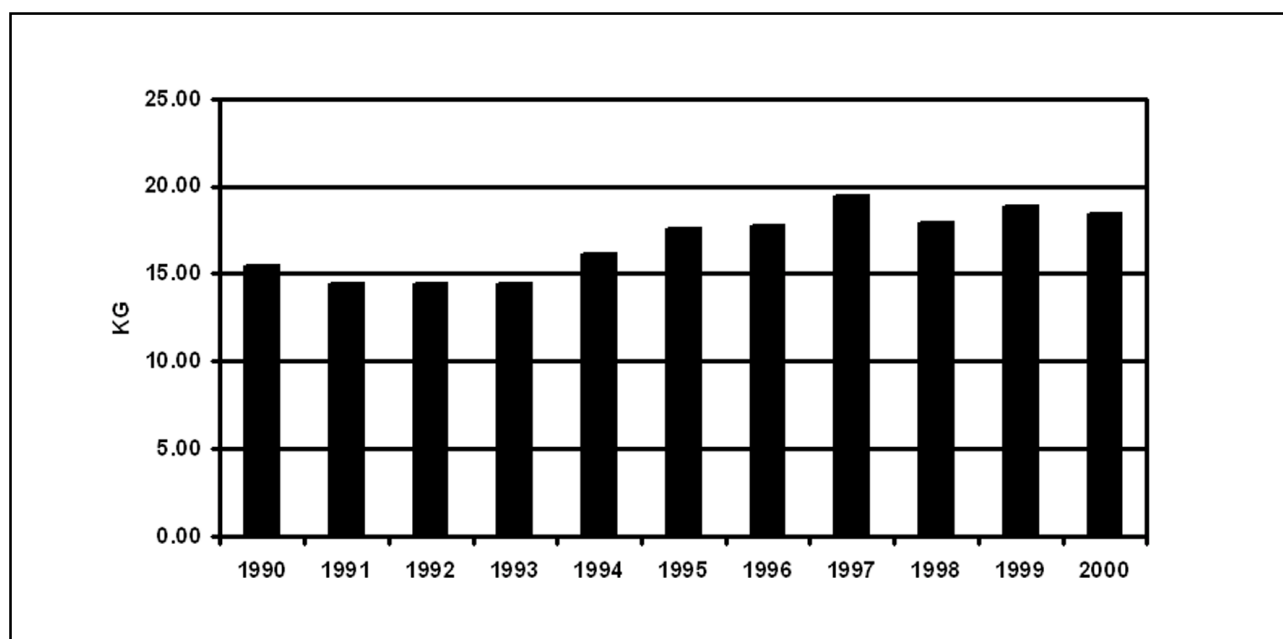


Figure 1. Per capita consumption of broiler meat in RSA (Source: SAPA, SSA, National Department of Agriculture, October 2000)

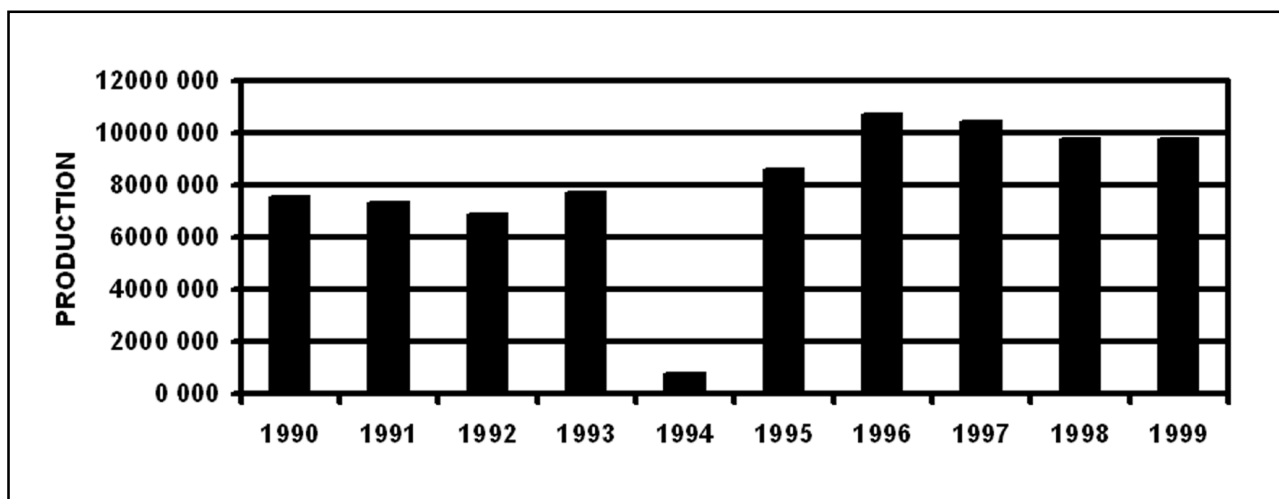


Figure 2: Average broiler production per week

Note: During 1994 there was a nationwide outbreak of Newcastle disease in South Africa.

Production Trends:

- Normally the poultry industry follows the red meat cycles which are, in turn, linked to the economic cycle and climate factors
- Annual cycles reflect the normal high demand in the Easter and December periods
- These cycles are reduced and sometimes eliminated by imports

Major players in the industry

Commercial broiler production in South Africa depends exclusively on exotic strains brought into the country:

- **Ross** from UK.
- **Cobb** from USA.
- **Hybro** from Netherlands.
- **Hubbard** from USA.
- **Arbor Acres** from USA.

The genetic progress of these strains is depicted in Table 1.

TRAIT	1968	1998
Slaughter age (days)	62	42
Live mass (kg)	1,18	1,79/1,86

Figure 3 reflects the major market share of broiler supply in South Africa. It is important to note that imports rank as the third most important supplier.

The production process in the broiler industry

The diagram (Figure 4) depicts the functioning of an integrated broiler firm, showing the following components of production:

- **The Hatching – Egg farm**, providing fertile eggs to the hatchery.
- **The Hatchery**, incubating fertile eggs to produce **Day-Old Chicks (DOC)**.

All healthy DOCs are sent to **Broiler grow-out facilities**.

The DOCs are raised for about forty-two days, and at that time they are ready for slaughter or to be sold live.

- At the **processing plants** birds are slaughtered and either converted to **Ready-to-Cook** chicken/cut-up parts or further processed to products like deboned chicken, polony, viennas, etc.

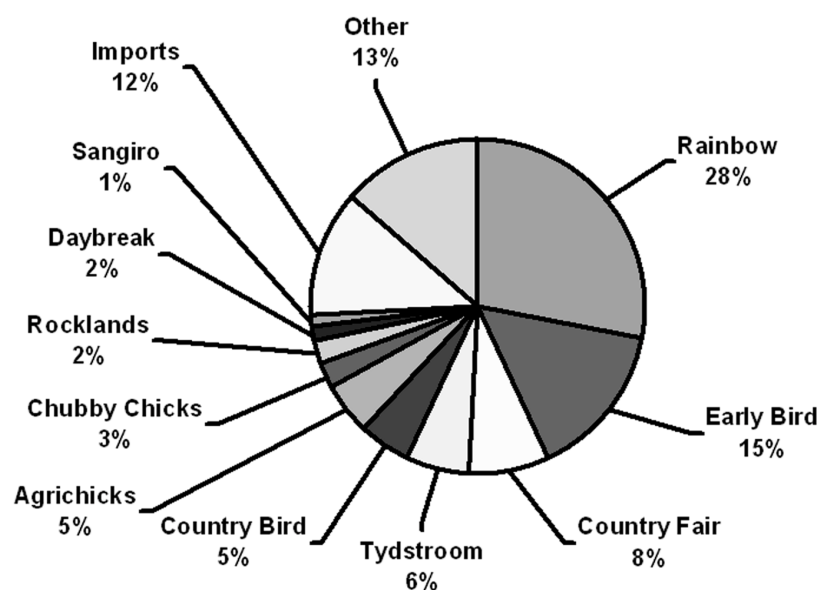


Figure 3: Market share of broiler supply in RSA. (Source: SAPA, Customs and Excise, November 2000)

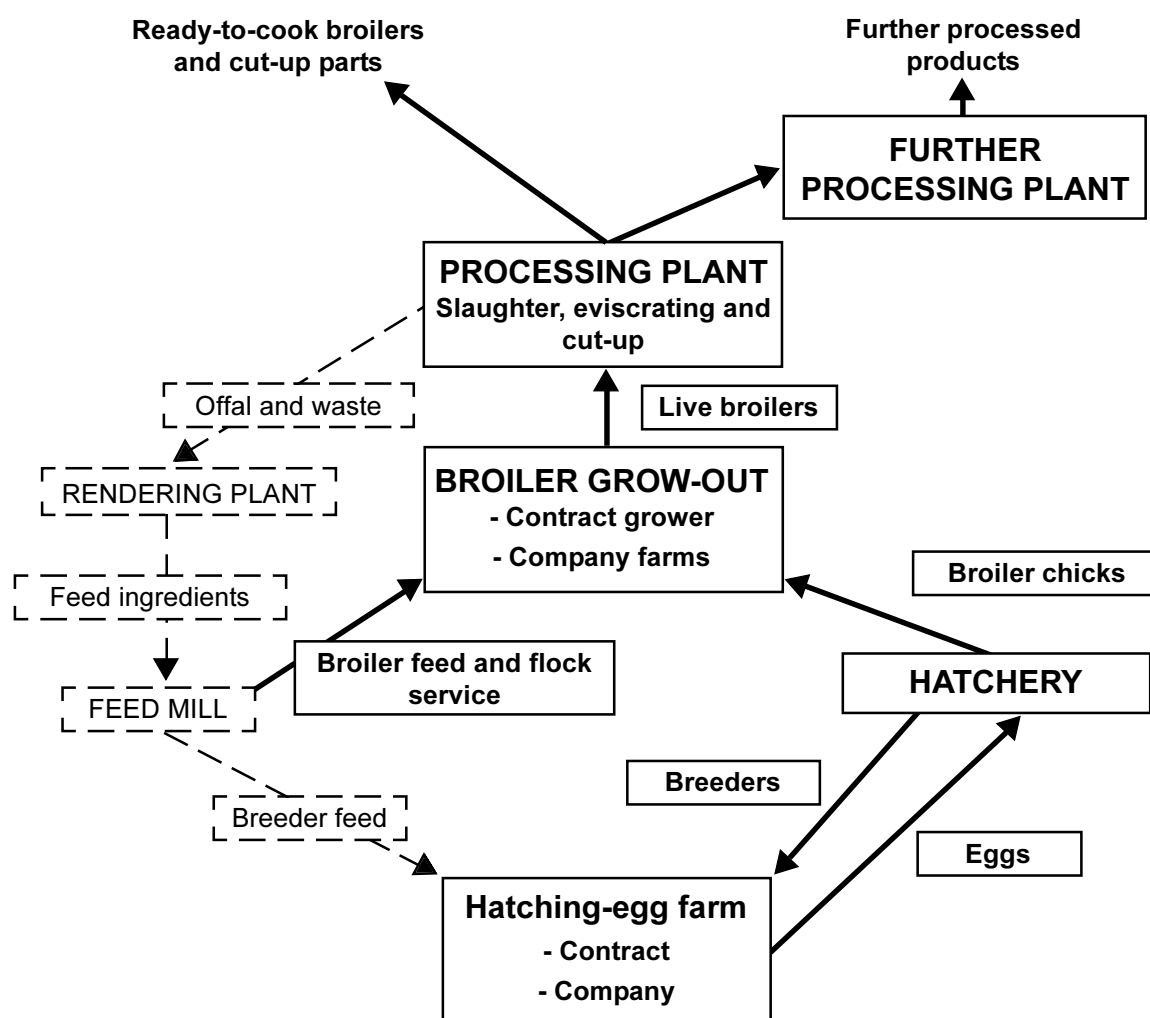


Figure 4: Functions of a typical integrated broiler firm

Visual aid 1

Legislation in the poultry industry

Evolution in legislation

The 1968 Marketing Act (Act No. 59) of South Africa established a system of control for the movement, pricing, quality standards, selling and supply of a large volume of farm production, with a view to, amongst others, securing price stability and narrowing the gap between producer and consumer prices. This was repealed and the new Marketing of Agricultural Products Act, Act No. 47 of 1996 came into operation on 1st January 1997.

The Broiler Industry was, however, one sector that was not regulated by a Board.

Import Tariff

The South African broiler industry currently finds itself in a difficult position, mainly due to high input costs, low producer prices and imports. In this regard, the Government imposed a tariff on cuts, offal and bone at R2.20 per kg. Imports from the USA have dampened the market. An anti-dumping duty of an added R 2.35 per kg is levied on cuts and offal, bone and portions for the USA.

Marketing channels

Figure 5 shows the different marketing channels.

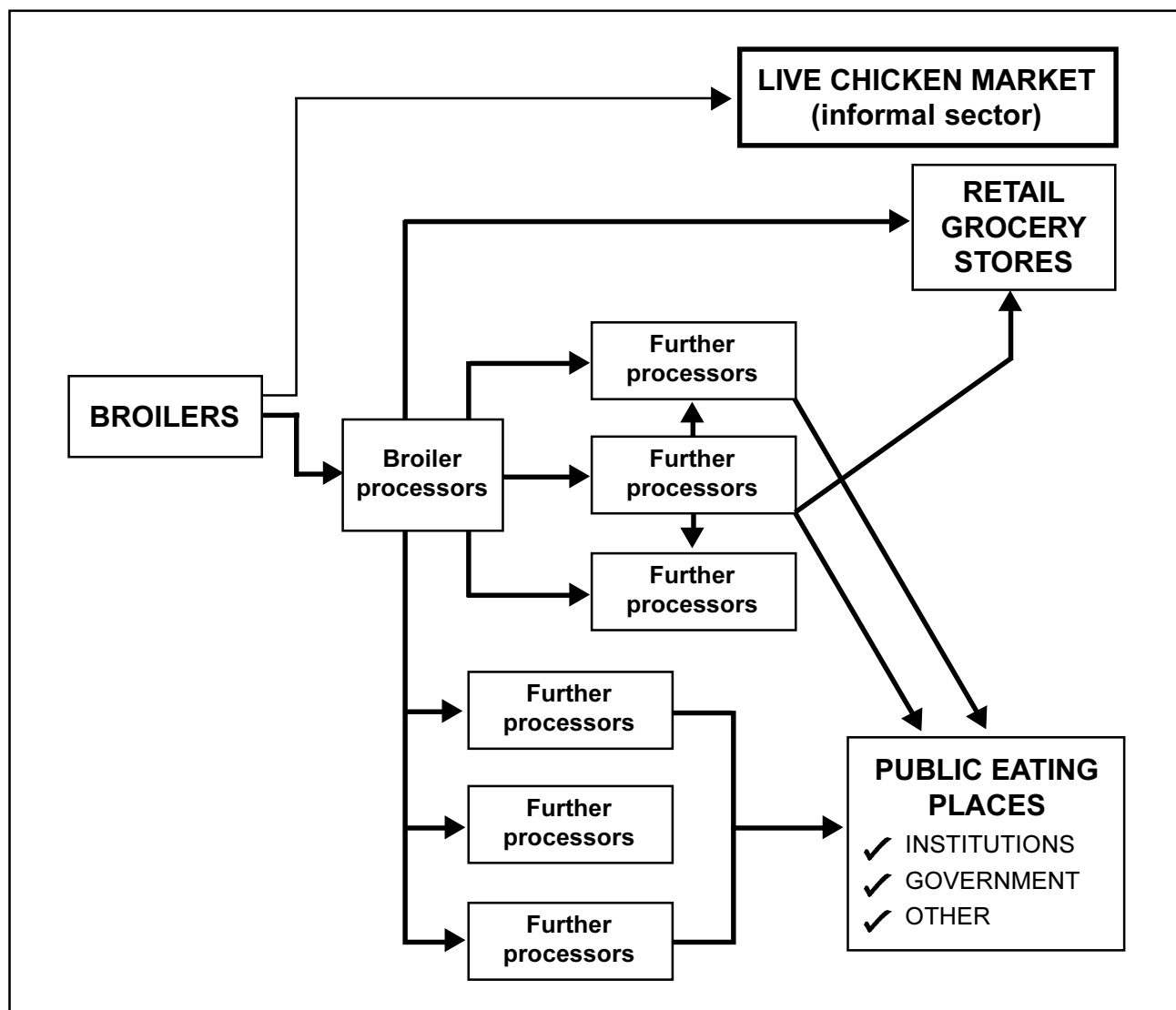


Figure 5: Marketing channels

Visual aid 2

Sale of live birds

Visual aid 3

The sale of live birds mainly occurs at the townships, peri-urban areas and in the rural areas. This activity occurs right through the year with peak times during holidays and the Christmas periods.

The sale of live birds can occur in the following ways:

- **Producers or growers selling to consumers.**
Broiler producers load broilers on their bakkies and sell to consumers.
- **Hawkers buying from producer for resale to consumers.**
Usually broiler producers, including small-scale producers, sell broilers through their farm stalls. Hawkens buying in bulk get a better price than the others.
- **Hawkers buying chickens from Spent-Hen Depots for resale to consumers.**
Spent hen depots are owned by entrepreneurs who have a link with egg producing companies (farms), breeder farms and broiler producers. They buy these chickens and then sell them to hawkers.
- **Some producers hand slaughter chickens for their customers.**
In this situation big drums are used for boiling water, then farmers will kill and pluck the birds. The **hygiene** situation is not at its best in this case.
- **Some producers do “custom-processing”.**
In “custom-processing” producers make an arrangement with an abattoir to kill their chickens at a fee. One “custom processor” (Orion) in Gauteng is currently charging R1.70 (VAT included) to process and package one bird. An additional R0.50 is charged if the bird has to be cut-up.

Types of birds sold live

- **Broilers**
Broilers are young chickens usually under 8 weeks. They are of either sex and have tender meat with soft, pliable, smooth-textured skin and flexible breastbone cartilage. Usually they weigh between 1,1 – 1,4 kg
- **Cornish hen**
The breeder stock after completing their production cycle are culled. These birds are referred to as Cornish or Rocks in the townships. Usually hawkers source them from the spent-hen depots.
- **Free-range chickens**
Free-range chickens are not confined. They are allowed to roam around and feed on different food. They usually take a longer time to mature because they scavenge and do not get well-balanced rations. Many Africans like these chickens.
- **Spent-hen Sales**
Spent-hens are matured female chickens that have completed their egg production cycle. Due to the demand for live birds, the selling of spent-hens is a relatively lucrative activity in South Africa. As a result, hen depreciation cost is lower than in developed countries.

Review of price formation

Broiler production costs

Table 2: Weighted average cost structure in Rand per live broiler weight (kg)

Input Item	1992 (R)	1993 (R)	1994 (R)	1995 (R)	1996 (R)	1998 (R)
Day-Old Chick	0.35	0.38	0.40	0.49	0.56	0.80
Labour cost	1.58	1.74	1.72	1.78	2.01	2.80
R & M – equipment	0.07	0.08	0.10	0.1.2	0.13	0.18
Bedding	0.01	0.01	0.01	0.02	0.02	0.01
Distribution	0.03	0.03	0.03	0.05	0.05	0.07
Energy & water	0.07	0.07	0.07	0.08	0.09	0.14
Medication	0.02	0.02	0.03	0.04	0.03	0.04
Other	0.13	0.13	0.14	0.28	0.32	0.43

Retail prices for chickens

Product	Selling Price (R/kg)
Fresh whole chicken	14.00 to 15.00
Frozen whole bird	11.90 to 12.98
IQF thighs (2 kg)	31.99
IQF breast (2 kg)	25.99
Chicken fillet portions	29.98
Braai packs	20.98

Prices for live birds

Type of chicken	Cost Price from supplier (R)	Selling Price to customers (R)
Broilers	15.00 to 16.00	20.00 to 25.00
Spent hens	15.00 to 16.00	20.00 to 25.00
Cornish	25.00 to 27.00	30.00 to 35.00
Free range	N/A	20.00 to 25.00

The cost prices of live birds vary based on the quantities bought and the season (holidays, Christmas, etc.). Some hawkers do slaughter based on customers' requests. The price of the processed chicken is the same as that of the live one!

Value adding

Processing activities

Receiving

- Off-loading of birds from truck(s).
- Removing birds from coops (crates).

Hanging

- Hanging birds on shackles upside down.

Stunning

- Can be done by a knife or water bath.
- Immobilising birds.
- Help in calming birds.
- Blood flow to the head for proper bleeding.

Killing

- Cut the jugular vein.
- Head not removed from the body.

Scalding

- Putting the bird in warm water to relax feathers.

Picking or defeathering

- Remove feathers by picker(s).

Evisceration

- Opening the body cavity to remove intestines.

Cut hock and neck

- Cut the hocks and remove the neck bones.

Cut-up

- Cutting the carcass into pieces.

Further processing

- Deboning.
- Cooking.
- Production of polony, vienna sausages, hot dogs, etc..

Packaging

- Wash the carcass and giblets thoroughly.
- Chill in ice water 2 to 3 hours.
- Remove from chill water and drain.
- Place giblets in a small plastic bag.
- Place giblets in crop area of carcass.
- Place legs of carcass under the strip of skin left after the horizontal cut below the breast.
- Place carcass in plastic bag, draw out as much air as possible, and tie the bag with a wire tie.

Storage

Dressed poultry:

- can be stored in the refrigerator for several days and
- should be frozen if it is to be stored for more than seven days.

Starting a chicken farming business

Requirements to consider

When starting a chicken farming business it is important for the farmer to plan his enterprise properly. The first thing to do is to **prepare a business plan**. This will address questions pertaining to the source and availability of inputs, production scheduling, where to market the produce, and the feasibility of the enterprise. The extension officer can assist farmers in preparing the business plan.

A **market survey** must be conducted to determine where to market the birds. This survey will assist in determining:

- Where to sell chickens?
- At what price?
- In what form (live birds or dressed chickens)?
- Who are the competitors?
- At what price are they selling their chickens, etc.?

It is important that the farmer makes sure that he/she produces according to **what the market demands**. Through the market survey the farmer can find out that there is a market for example:

- live birds,
- processed whole birds or
- cut-up chicken pieces.

Live birds

If the market is for live birds, then it is important to determine what **quantity and quality** of the produce is required and what **weights** are looked for. **Transport (bakkie or van) for chicken crates** are a requirement for marketing live chickens.

Processed chickens

For marketing processed chickens (whole birds or cut-up), an abattoir, packaging material, transport and chicken crates will be required.

Production scheduling

To **ensure constant supply** right through the year the broiler enterprise must be planned in a way that every week sales of birds occur. Ideally, eight houses must be erected to ensure constant supply. The broiler enterprise must have a viable business plan, indicating all the aspects of the business.

Overall constraints

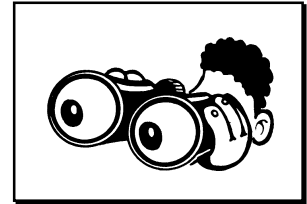
The following factors have been identified as constraints affecting the ability of emerging farmers to access the market:

- **Lack of regular supply of Day-Old Chicks (DOC)** to enable constant supply of produce.
- **It is difficult to enter the formal marketing sector.**
The industry perceives that new entrants **could cause oversupply of chickens**. If new entrants do not practice good management they could become vectors of disease (such as Newcastle disease). This leads to a strong opposition to promoting broiler production by emerging farmers.
- The historical **relationship of established producers with the markets could be difficult to change**.
It is extremely difficult to gain entry to such markets for the new entrants. Through the influence of Government, SAPA and the newly established empowerment companies (JVs) this situation could be improved.
- **Lack of information** and exposure restricts access to markets.
It is important for the producers to know who needs which products at what price. Over and above the traditional market that the producer is aware of, he/she must seek to know other possible markets. **A marketing plan and marketing skills are needed.**
- **Producers must apply themselves to seek market opportunities** beyond what they are currently involved in. In this regard, advisors, such as extension officers can provide a link between farmers and the market.

Activities for the extension officer

Contracting arrangements

Farmers should explore possibilities of becoming contract growers e.g. the extension officers can facilitate this type of arrangement. They can also play an important role in explaining the contract to farmers, so that all the concerned parties know what is expected of them.



Transportation and holding area (pens)

Usually, hawkers arrange their own transport when they go to buy chickens from the farms. Each hawker makes a contribution towards the hiring of transport. In many cases the chickens bought are not properly handled, since overcrowding is common. This results in some chickens being bruised, broken legs and wings or even death. **Hawkers, through the assistance of extension officers, can be sensitized about the importance of handling chickens humanely.**

Some of the holding sheds or pens that hawkers are using need to be improved. **Water and feed should be provided by hawkers.** Extension officers can play a role in **providing basic information about chicken rearing to hawkers** to improve their businesses. Who knows, some hawkers may end up being producers!

Linking farmers to hawkers

Many hawkers buy chickens from white farmers. The emerging farmers should approach these hawkers and make arrangements that they buy from them. Farmers can even entice hawkers by delivering the eggs and chickens to them, since most hawkers have transport problems.

For hawkers to buy from these farmers, the price must be right and also a constant supply of eggs and chickens must be secured. The extension officers can assist farmers in planning their enterprise to schedule production according to the demand.

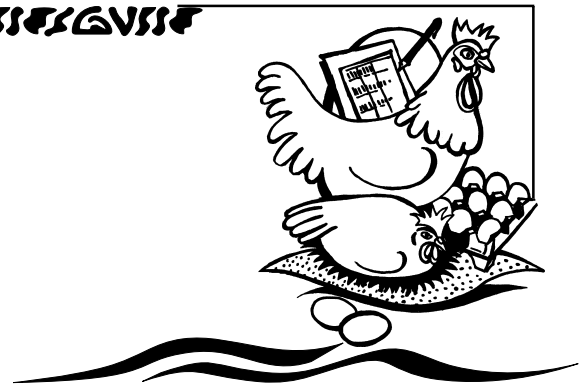
Providing information on regulations

Information on regulations such as health, packaging requirements, etc.

Some producers and hawkers are engaged in “back- yard slaughtering”. It is important for these people to be made aware of **minimum health requirements** in the slaughtering of poultry. The extension officers can provide information in this regard.

Training in production management

General training in chicken production is necessary. This can alleviate the fear of the industry which perceives small-scale producers as potential disease vectors.



The Egg Industry

Overview

Three distinct sectors

The egg industry comprises of three distinct sectors:

- Day-Old Chick production.
- Layer replacement hen production
- Egg production.

Some large companies are integrated and are involved in all three sectors.

Day-Old Chicks

It is estimated that about 20 million Day-Old Chicks are produced per annum (SAPA). The market of Day-Old Chick production is dominated by three major companies, e.g. Nulaid, Golden Lay and National Chicks/OTK. Other smaller producers are also involved.

Layer replacement hens

This involves the rearing of Day-old chicks into layer replacement hens. Most of the Day-old producers and other smaller producers or specialist rearers are involved in the production of layer replacement hens.

Egg production

This involves the rearing of birds to sexual maturity and then keeping them in lay for a year. The eggs produced are infertile and they are called table eggs. Some producers begin their production process by raising the day-old pullets, while other buy point-of-lay pullets (e.g. 20 to 22 week-old pullets) that are ready to begin production.

Egg production process

Production begins with the breeder stock, at the *fertile egg production facilities*. Good quality eggs are sent to the hatchery for incubation. Those eggs that are not good are sold as by-product to consumers or entrepreneurs. (See figure 6.)

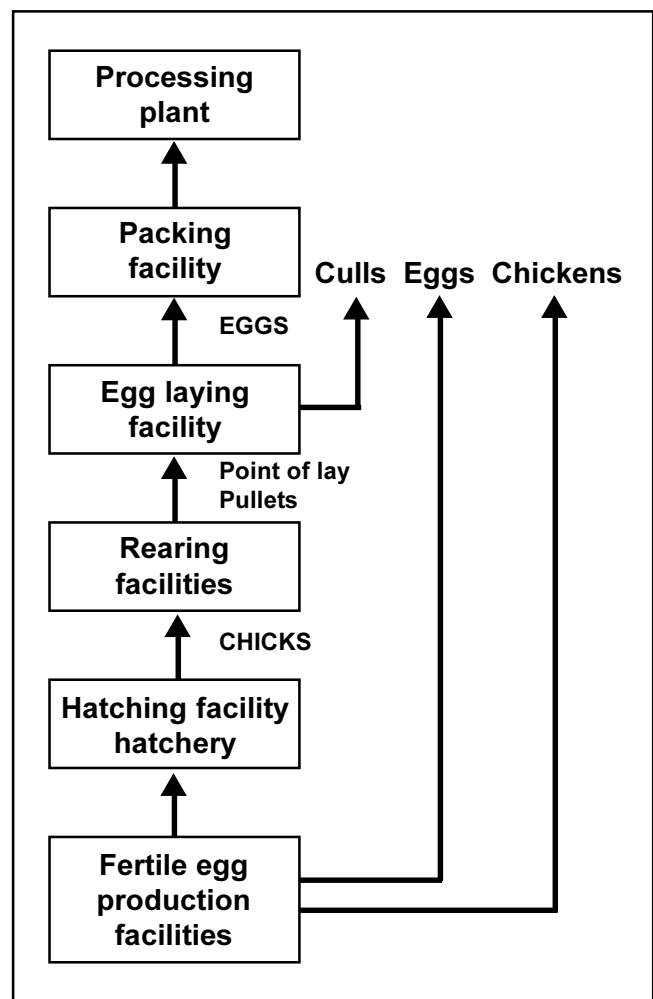


Figure 6: The egg production process

Visual aid 4

The fertile eggs will produce day-old pullets that will be reared at the rearing facilities until they are ready for laying. At the egg laying facility, the pullets will produce eggs that will be packaged and sold to consumers or be sent for processing (see figure).

Statistics

- Gauteng and Western Cape produce approximately 26 % and 24 % of the total production, followed by North West with 15 % and KwaZulu-Natal with 13 %. (NDA - *Trends in the Agricultural Sector*, 1998)
- The South African layer flock consists of approximately 15,8 million birds in lay.
- National egg production volume of 12,5 million cases (1 case = 360 eggs) in 1998 represents an increase of 8,5 % over 1997.
- Per capita consumption was 111 eggs in 1999 which includes egg products. When excluding the egg product it was 105.
- The growth rates in egg consumption have been as follows:

1965 to 1975	66 %
1975 to 1985	20 %
1985 to 1995	57 %

Major players in the egg industry

Commercial egg production in South Africa depends exclusively on exotic strains brought into the country by the following companies:

- Hy-line from USA
- Lohmann from Germany
- Amber Link from USA
- Hybro from Holland

These companies operate on their own or form joint ventures, distributorships or agencies with local poultry companies to supply their breeding stock nationally or in selected provinces.

The egg production industry is fragmented with a few major players and a number of small and medium-sized producers. Some of the major players include:

Name of Company	Major Activities	Area(s) of operation
Almur Smit (Hyline)	Supply D-O pullets	Based in the Free State but operates nationwide
Malan Chix (Hy-line)	Supply D-O pullets and Lay ready hens	Gauteng
Bergvlei Chicks (Hybro)	Supply D-O pullets and 5 week lay pullets	Western Cape, KwaZulu-Natal, Gauteng
National Chicks (Hy-line)	D-O pullets	Nationally
Nulaid	Integrated egg producer	Gauteng, KwaZulu-Natal, Western Cape, Eastern Cape
OTK	Integrated egg producer	Gauteng, KwaZulu-Natal
Golden Lay	Integrated egg producer	KwaZulu-Natal, Gauteng
Highveld Cooperative	Integrated egg producer	
Eggbert	Integrated egg producer	Gauteng

Egg Board

The Egg industry, like the other agricultural sectors, used to be controlled by a Board. The Egg Board ceased to exist in 1993.

Marketing channels

Distribution channels

The distribution chain in the egg industry tends to be short, with more than 75 % of total production is delivered directly to the formal trade sector. Distribution to the consumer is as follows.

Outlet	Percentage
Wholesaler	14 %
Retail stores (e.g. Pick 'n Pay, Shoprite, Hyperama, Woolworths, Spar)	59 %
Small retail outlets (Butchers, cafes and quick shop petrol stations)	19,4 %
Cash sales from farms to mine hostels, learning institutions, as pulp for bakeries, or to Ovipro, the egg processing plant	6,9 %

At present **emerging farmers sell their eggs to black-owned shops, Spaza shops, butchers, hawkers, restaurants, hotels and to a small extent to white traders** (e.g. Cafes). Farmers do better when selling to **black customers** since **grading and packaging requirements are not as stringent**. Farmers **just clean the eggs, sort them by size and package** them either in **plastic bags** (in 6 or 12) or **trays** (30 eggs). At times a mix of small and medium sized eggs are packed. (See figure 7.)

Spent-Hen depots

Spent-hen depots are owned by entrepreneurs who have an arrangement or contract with egg producing company/farm and/or breeder farms to buy culled birds for resale. The depots also sell ungraded eggs to hawkers.

Due to the demand for live birds, the selling of spent-hens (at the end of lay) is a relatively lucrative activity in South Africa and, as a result, hen depreciation costs are lower in South Africa than developed countries, where birds are often used for dog or cat food.

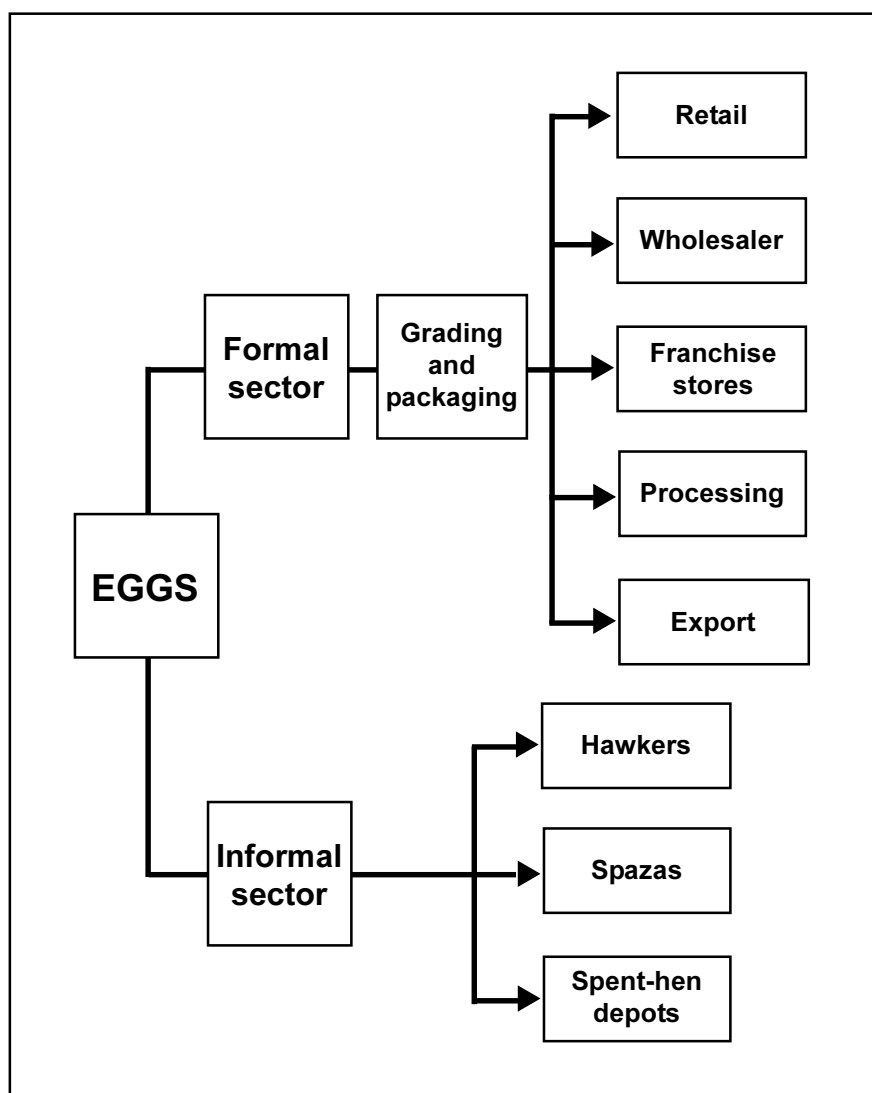


Figure 7: Distribution channels

Visual aid 5

Industry evolution

The South African egg industry is bound to change considerably in the longer term. Government actions, pressure from buyers, urbanisation, electrification of townships, population growth and cross-border trading are all factors that will influence the future evolution of the egg industry.

The following changes may be expected:

- Fewer marketing chains due to consolidation.
- Rural development of **small poultry farmers** who may **supply** product to **processors and marketers of eggs**.
- Local **egg producers** producing and **marketing eggs** in other Southern African countries.

Requirements to improve marketing

Current situation

- Retailers are reluctant to encourage or support increased prices for these products.
- Retailers seldom, if ever, provide for merchandising. It is the producer who has to make sure that the eggs are properly packed and displayed.
- “Promotion” in retailer’s terms denotes a discount price in order to use the product as an in-store attraction.

From the above it can be seen that it would be **extremely difficult for emerging farmers to enter into the retail supply chain**, since it is **looking for suppliers who can guarantee the demand at an acceptable price and quality**.

While **some smaller producers** can match the price and quality criteria, they are **too small to supply the needed quantities**.

Future market growth

The African population represents the best market opportunities for emerging farmers. Distribution channels to the low-income groups need to improve, and are doing so. The distribution of eggs to townships, spazas and door-to-door sales must be promoted. Catering companies, hawkers buying in bulk from producers, cooperatives, contracting, and government tenders all represent possible markets.

Many farmers don’t adhere to the grading requirements as stipulated by legislation. For small-scale farmers to penetrate other markets it is important to begin following the regulations. Training in grading and packaging can open new markets for small-scale producers, especially on government tenders.

The marketing process and post harvest handling

The following tasks are involved in marketing eggs:

- Collection of shell eggs from farms.
- Transportation to a grading or packing plant.
- Grading and standardising of eggs.
- Processing and packaging into useful forms that are stable and convenient.
- Provision of storage facilities.
- Movement of eggs through wholesale and retail channels.
- Final delivery of products to consumers at a convenient place and time.

Cooperative marketing

The **black-owned cooperatives** could be a **vehicle for penetrating the formal marketing channels** in South Africa. Through cooperatives the produce of farmers can **ensure larger supply of quantities, create a brand name**, and have **“muscle” to negotiate prices on behalf of farmers**. The function of the cooperative can be to look for markets for members and also assist in preparing the produce (grading and packaging) and marketing it.

Unfortunately, the black-owned cooperatives have not been doing well. Some contributory factors include:

- **Lack of basic business skills**

Cooperatives are not run as businesses.

- **Seasonal activity**

Cooperatives are focusing in selling inputs (feed, fertilizer, diesel, etc.), tractor and implement hire. Other activities are neglected to make the cooperative functional right through the year. The idea of marketing and value adding is not common among cooperatives.

Grading of eggs

Eggs are classified in the following three Grades:

- Grade 1
- Grade 2
- Undergrade

Egg standards

Size	Minimum mass per egg (grams)
Jumbo	More than 66 g
Extra large	More than 59 g
Medium	More than 51 g
Small	More than 43 g
Mixed sizes	Not specified

Egg Handling

- Eggs should be collected at least twice a day.
- More frequent gathering is recommended, especially during extremely hot or cold weather.
- When eggs are allowed to stay in the nest, the incidence of dirty and broken eggs increase. Broken eggs encourage egg eating by the hens.
- Dirty eggs should be dry cleaned or washed with an egg washing compound as soon as possible after gathering.
- Eggs should be dried, placed in a clean carton, and refrigerated as soon as possible after gathering and washing.
- Eggs sold to retail stores must be graded according to the specified legislation.

Packaging

Plastic packaging material can be bought from wholesalers. Egg trays, specialised for packaging eggs, are manufactured by *Van Leer* whom has setup distributors in the different provinces. (See Annexure C.)

Quality control

External: shell quality, cleanliness, size and weight.

Internal: size and condition of the air cell, condition of the yolk, condition of the egg white, presence of blood spot and meat spots or other abnormalities in the white. This is examined through candling:

Quality parameter	Accepted eggs	Rejected eggs
Egg shell	Whole	Hair crack
Air space	1 – 1,5 cm	1,5 or more, loose
Yolk	Firm, central	Loose or at side
Egg white	Clear	Blood and meat spot

Pricing of eggs

Production costs

Cost structure per dozen	Weighted average of 12 large egg producers (Rand)			
	1994	1995	1996	1997
Net Sales	2.903	3.155	3.102	3.415
Cost contribution factor of purchases	0.035	0.036	0.037	0.032
Farm cost	1.722	1.744	2.017	2.366
Packaging	0.400	0.397	0.396	0.405
Distribution	0.147	0.154	0.147	0.145
Overheads	0.183	0.158	0.192	0.221
Profit before interest and other income	0.416	0.666	0.314	0.245

Average retail prices of eggs

The following egg prices are obtained from the Retailers during the Christmas period (December, 2000). Although they reflect a few selected chain stores, they provide a general indication of prices.

Unit Pack	Sizes		
	Large	Extra large	Jumbo
Half Dozen (6 eggs)	R 2.57 – R2.69	R2.85 – R2.99	*
Dozen (12 eggs)	R5.15 – R5.75	R5.65 – R6.75	*
One and Half Dozen (18 eggs)	R8.59 – R8.75	R8.60 – R8.95	*
Two and Half Dozen (30 eggs)	R13.99 – R14.80	R5.60 – R15.95	*

*No Jumbo sized eggs were available.

Producer egg prices

Unit Pack	Jumbo	Medium	Small
Tray (30 eggs)	R11.75	R9.50	R6.00
Case (30 dozens)	R141.00	R140.00	R72.00

Challenges and opportunities

Commercial layer production

Opportunities

- Contract growing

Live sales-culls

Main requirements

- Working capital is required to procure stock and to cover overheads such as wages and fuel.
- Long-term finance would be required for the purchase of vehicles and equipment such as chicken crates.

Constraints

Mortalities and cash in transit are the main risks.

Opportunities

Entrepreneurs with limited education and technical skills can be competitive.

Packaging of eggs

Main requirements

A fully equipped pack station which has access to labour, egg producers and markets is the main requirement.

Constraints

The aspect of the value chain is "high tech." and capital intensive requiring a high level of skills in respect of regulations, stock control and plant maintenance. Reliable sources of quality eggs are imperative.

Opportunities

- Small packaging plants are a possibility.
- Larger packaging plants can be established by organisations such as cooperatives and associations.

Retailing and franchises

Dominated by the major supermarket chains. Barriers to entry for this section are high due to the following demands made on the suppliers:

- Formalised distribution channels.
- Ability to supply regional and nationally.
- Discount structures or promotional requirements.
- Sales and market support.

Catering sector, including spaza shops

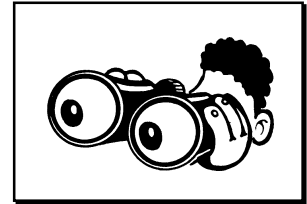
Functionally is a distribution activity aiming to:

- Reach informal market.
- Move large volumes regularly.

Opportunities

Have less formalised requirements than the retail sector. The volumes required are lower, pricing practices are more flexible and demand is more regionalised. This provides the small producer an opportunity to supply into this market. It also has fewer barriers for new entrants to enter into the market.

Focus points for the extension officer



What extension officers can do

Business plan preparation

General guidelines.

Conducting a market survey

Rapid appraisal.

List of poultry stakeholders

Input suppliers:

- Hatcheries (source of day old chicks).
- Feed manufacturers (distributors and agents).
- Equipment and machinery suppliers.
- Pharmaceutical companies (vaccine, animal drugs, etc.).

Institutions, organisations and companies involved in poultry:

- Companies that are major players in the industry (e.g. Rainbow, Country Birds, etc.).
- Research institutions (ARC).
- Learning institutions (NPI).
- Medunsa.
- Universities providing training in poultry.
- NGOs and consultants (engaged in poultry development).

Contracting

To provide basic understanding of the contract requirements, expectation and rewards of the contract.

Price information or where to get it from

Sources of price information.

Costs

- How much does it cost to produce a chicken?
- How much does it cost to produce a dozen of eggs?

What the extension officer can assist in as resource person and facilitator

- Business plan preparation.
- Market survey.
- Production scheduling and coordination in input supply.
- Contracting arrangement.
- Commodity group formation.
- Link producers to hawkers, markets and processors.
- Provide information on regulations (health and packaging requirements).

Possible strategies for emerging farmers

Strategies for the chicken and egg producer

Market	Opportunity	Weakness
Contracting.	Small-scale farmers can enter into a contract with a processing or a packaging plant or an integrated company to supply a stipulated number of chickens or eggs at a time. This provides a steady market for the small-scale farmer.	Contract chicken growing and egg production is currently dominated by white farmers. The contractor specifies certain requirements (e.g. size of building, type of feed, vaccination programs) that the contractee must adhere to, or face penalties.
Supply to consumers.	Consumers can buy chickens or eggs at the farm stalls. The farmer can employ a door-to-door sales representative to take orders in the township. "Yapees" who have moved into the suburbs can still enjoy fresh "real farm chicken" or "free range chickens" and they can afford to pay the price.	For the door-to-door and the "Yapee" market the farmer may be requested to slaughter the chickens at no extra charge because it is just a service.
Supply to hawkers.	Live chickens or eggs can be sold to hawkers on a regular basis. Since most hawkers have a transport problem, the farmer can entice them by delivering the chickens or eggs at their sheds or holding area. Hawkers must place their orders so that deliveries can be carried out by Friday in preparation for the weekend.	The farmer must provide transport and crates (for chickens). Though it seems as a weakness, it is a mechanism to ensure business with the hawkers.
Supply to hotels, restaurants, caterers, township bed & breakfast (B&B's), guest houses, and tourist shebeens.	There are many tourist initiatives and developments in the townships that need to be catered for. Unfortunately at the moment they are under-serviced and still depend on the traditional distribution channels. Entrepreneurs can intercept by servicing this clientele.	A processing plant (or custom processing ¹), packaging plant and transport will be required to supply these clients. Quantities demanded by these clients fluctuate over time, meaning that the farmer must have an assertive sales person.
Supply to township chicken-outlets.	Besides the well known (e.g.. Kentucky and Nandos) chicken outlets, there are several new ones mushrooming in the townships.	The requirement is to process, cut-up and package the product. The clients need small sized pieces, meaning that the chickens can be slaughtered at an early age of five to six weeks instead of seven.
Supply to township cold storage distributors.	Some entrepreneurs have positioned themselves in the townships and other former black areas to distribute eggs and chicken meat. The concept here is "TO BRING THE PRODUCT TO THE CONSUMER" to reduce the transport constraint. Small-scale farmers can supply these distribution centres.	The small-scale farmer has to process and package the chickens. The distributor has to assist in securing refrigerators for his clients (especially for chickens in Spaza shops). This may need some creative thinking in forming cooperatives and involving other stakeholders.

¹ -Custom processing occurs when a producer without a processing plant makes an arrangement with a processor to process his/her birds at a given fee.

Market	Opportunity	Weakness
Market through cooperatives.	The black owned cooperatives could be a vehicle for penetrating the formal marketing channels in South Africa. Through cooperatives the farmers can ensure larger quantities, create a brand name and have a “muscle” to negotiate for better prices. The function of the cooperative can either be to look for markets for members or assist in preparing the produce (grading and packaging) before marketing.	In South Africa, unfortunately the black owned cooperatives have not been doing well. There is a need to revamp these cooperatives.
Supply through tendering.	Every year tenders from the government departments (e.g. correctional services, hospitals, etc.) are published for the supply of chickens and eggs. Small-scale farmers stand a chance because of the <i>ten point system</i> designed for the <i>Previously Disadvantaged Individuals (PDI's)</i> provided they can meet the price, quality and quantity requirements.	This requires processing, packaging, grading and refrigerated trucks. Such tenders can also be done as a <i>Joint Venture (JV)</i> with established companies.
Supply mining houses.	Mines have kitchens and hospitals that are serviced by caterers (in-house or as an out-sourced service). Some of these mines are now owned by Black Empowerment Groups who can be lobbied to empower small-scale farmers.	This requires processing, packaging, grading and refrigerated trucks.
Other markets.	The Poultry Industry, SAPA, new Black Empowerment Groups must be lobbied to open up for small-scale producers, or even better, the government must facilitate the process to create the enabling environment.	

Other rural-based enterprises capable of supplying additional income for a small-scale farmer.

Market	Opportunity	Weakness
Cleaning.	Teams (labourers) to provide the service of cleaning, removal of manure (litter) and disinfecting poultry houses after production cycle.	The farmer must adhere to labour laws and regulations.
Transportation.	Many chicken and egg producing companies out-source transportation in their business since it is not their core function.	High capital input needed to secure trucks and crates.

Business plan outline

Introduction

Executive summary

Country information

- General information, statistics and facts, geography, sociopolitical information..

Provincial information

- General information, statistics and facts, geography.

Regional summary information

- General information, statistics and facts.

The proposed business

- The project or business, aims and objectives, association, structures and activities, community structures, associations and communal benefits.

Project operation and management

- Implementing agency, availability of local skills and contributions, association participants and contribution, implementation of time schedule, roles and activity requirements, members of the association, representatives.

Marketing and production plan

- Market area and location, competitors in area, remained, marketing strategy, production process, fixed capital, requirements, sources and input, maintenance and repairs, human and labour resources.

Budget and financial plan

- Capacity building requirement, financial and loan requirements, financial feasibility of the project - costs (start up), operational costs, project returns.

Key performance indicators

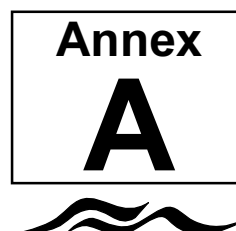
- Monthly expectations, quarterly expectations, annual expectations

Contracts

- Will you get a written contract to sign, can you refuse to sign or discuss the terms?
- Supply of inputs (e.g. day-old-chicks, feed, medication).
- Is there a provision for arbitration or mediation?
- Have you done a cost flow analysis on the contract?
- What happens if disease hit the farms, or it is a poor stock to start with, can you refuse to take the stock?
- What happens if stock dies in a heat-wave or other disaster, is the loss shared?

About pay

- If the contract covers several years, what adjustments are made for inflation or changes in interest rates?
- What basis are you going to be paid? Concentrate on being paid on what you can control.
- Can birds be rejected at the processing plant?



Case studies

Broiler industry

Ms. Thenjiwe Ngqula – Chicken Breeding Project

Thenjiwe Ngqula and her sister Nomvula are involved in a poultry production business at Umzimkulu in the Eastern Cape. Thenjiwe is a pharmacist by profession and Nomvula is a farmer.

Thenjiwe started the poultry business because she felt that the eggs and chicken she bought from the shop taste differently from the farm produce. She started farming in 1992.

Types of breed and breeding stock

Thenjiwe farms with Rhode Island Reds, Buff Orpingtons, Black Australorps, Brown and Barred Leghorns, as well as white, Speckled and light Sussex.

Her first breeding stock was bought at R50 each from a Bronkhorstspuit farmer. She bought Buff Orpington hens and roosters from him. She also bought some Rhodes Island, Red hens and roosters from a Kokstad farmer and some of her first stock was also bought from Gauteng.

Marketing

Some of the stock that she keeps goes to farmers who grow them out to layer stage for selling and slaughtering purposes or as breeding stock to egg producers. The community also buys many of her fowls to improve their own stock, at R16 per bird.

Conclusions

- **When Thenjiwe started the poultry business it was very difficult to obtain the breeding stock. This meant that she had to search for breeding stock from farmers that were located far away. As her operation became bigger she was able to breed her own stock.**
- **The business is now flourishing and is becoming difficult for her to keep up with the demand. Due to this, Thenjiwe plans to build what she calls a “deluxe hut” with electricity, fans and heaters. This will enable her to raise chicks up to the age of 18 weeks before selling them as breeders or layers.**

Mr. Thlongwane

Mr. Thlongwane started farming early in the 1960s when a black person was not allowed to own land and get involved in farming. He started chicken farming on a 1 ha plot in 1969 and built his first chicken-house. He now has the right to occupy 33 ha. He has developed the land and set up infrastructure.

Production activities

Mr. Thlongwane produces 2 000 broiler chickens a week. He cultivates tomatoes on 20 to 24 ha of land, cabbage on 18 ha, mealies on 6 to 10 ha and senano chillies on 2 to 5 ha annually. He produces bananas on 5 ha and mangoes on 5 ha. He keeps a herd of 80 cattle on another 1 000 ha of leased land.

Charleen Klinkert Poultry Farm

Charleen Klinkert is a poultry farmer at Honeydew near Krugersdorp. According to Charleen the only way in which the South African farmer can invest in the future of this country is to help the black farmers to get on their feet. She further indicates that a new generation of new black farmers need to be developed. Charleen indicates that on her farm they have proved that the black farmers are keen and willing to help themselves if they are given enough boost to get going.

Broiler business

They first started with laying hens flattening them. At first they did not do well but after getting some advice, bought 1 000 day-old broiler chicks and raised them on a small and rather dilapidated plot. When the broilers were old enough they were slaughtered under a tree. They used old baths as water containers and stored the cleaned chickens in a domestic refrigerator.

Market

Charleen and her sons are now supplying more than 60 chain store shops in the area with whole birds. Their contracts with supermarkets have grown significantly which means that they have to slaughter more birds and they need more houses to keep up with a steady supply.

Empowering of the work force

There are about 250 workers on the farms, some have been working for them for about 10 years. She was once approached by a group of workers representing a total of six families who said they wanted to buy property because they wanted to farm. They decided to pool their money and asked if she could help them buy a farm. The idea was to become contract growers supplying broilers to the abattoir. She also indicates that having her workers owning their property has been a tremendous encouragement.

Conclusions

- **Became a profitable business because they diversified into the added value of slaughtering and selling direct to retail shops.**

Rooykop

Transvaal Broiler Breeders (TBB) and the Development Bank of Southern Africa (DBSA) have assisted the Rust De Winter community to grow eggs on contract for Transvaal chicks.

Mkhoma Poultry Project

A community project that is run by an association of fifteen members in Tweefontein, Northern Highveld, Mpumalanga. They raise thousand birds every month, and sell live birds to the community.

Thula Uzobona Broiler Project

This is a community project that was started by women in Bronkhorstspuit. The association consists of forty women who are all responsible for the success of this project. Besides broiler production the association is involved in other projects such as making peanut butter, craft making, and will be setting-up a vegetable nursery shortly.

Thokos Broiler Project

Thoko was one of the beneficiaries of a Land Reform Project in Onbekend. When the project failed, Thoko requested to proceed utilizing the facility on lease. Thoko is raising four thousand birds every fortnight. She sells her birds live to neighbouring communities and hawkers.

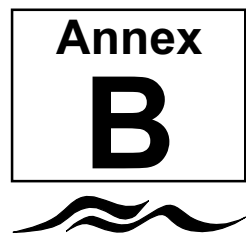
Egg industry

Mashashane

Agricultural Development Corporation, in the Northern Province has assisted emerging farmers to grow eggs for Mashashane hatchery on contract basis.

Nulaid

Workers of Nulaid have bought a stake in the Nulaid egg-producing farm near Kaalfontein. Such an empowerment deal is a new concept for the poultry industry, unlike in other agricultural sectors where worker have bought stakes in their companies.



Broiler industry

Year	Whole frozen (Rand/kg)	Whole fresh (Rand/kg)
1996	7.45	7.40
1997	7.74	8.46
1998	8.07	9.04
Part 1999	7.40	8.70

Description of cost	500 birds per week (cents/bird)	1 000 birds per week (cents/bird)	3 000 birds per week (cents/bird)
Feed cost	734.70	738.90	710.40
Chick cost	206.00	205.00	197.00
Gas cost	43.10	43.10	43.10
Medication	25.4	25.4	25.4
Water and disinfectant	4.50	4.50	4.50
Telephone	23.10	11.50	3.80
Labour	90.00	75.00	45.00
Shavings and collection	37.50	37.50	37.50
Depreciation, repair and maintenance	58.50	57.30	53.20
Cost per bird	1258.40	1230.80	1150.70
Production cost per kilogram live	544.80	532.80	498.20

Egg industry

1. Egg prices

Table: Yearly average egg prices

Year	Producer price Large (Rand/dozen)	Retail price Large (Rand/dozen)
1996	3.86	4.47
1997	4.26	4.90
1998	4.14	5.21
Part 1999	4.05	5.14

Source: SAPA

2. Production costs

	Number of layers			
	2 000 (c/doz)	4 000 (c/doz)	8 000 (c/doz)	1 6000 (c/doz)
Feed cost	205.3	194.4	194.1	193.5
Hen depreciation	32.0	32.0	29.5	26.9
Labour cost	22.6	15.1	13.2	12.2
Electricity	6.3	3.8	2.5	1.7
Water	0.6	0.6	0.6	0.6
Vet and disinfectant	2.5	2.5	2.5	2.5
Depreciation, maintenance and repairs	10.3	10.2	10.2	10.2
Total production costs	279.6	258.6	252.5	247.7
Marketing				
Packaging	40.6	40.6	40.6	40.6
Grading	16.3	10.0	7.8	7.4
Stationery & Phone	10.0	6.3	3.8	2.5
Transport	35.1	25.1	18.8	12.6
Marketing Costs	101.9	81.8	70.8	62.8
Total Costs Including marketing	381.5	340.4	323.4	310.5

Source: Meadow Feeds, January 2001

Useful information

South African Poultry Association (SAPA)

SAPA provides information on poultry statistics in their monthly Poultry Bulletin. The statistics pertains to broilers and layers. Statistics captured include:

- Broiler prices.
- Potential weekly broiler processing.
- Day Old Broiler parents placed.
- South African poultry meat imports.
- Raw material report, etc.

Farmers Weekly

The First National Bank (FNB) provides information on agricultural commodities through their article called "First National Agricultural Market Price Trends". The following statistics are covered:

- Poultry price trends. (Broiler).
- Livestock price trends. (Beef, mutton, pork and wool.)
- Crop price trends. (Yellow maize, white maize, wheat, oilseeds.)

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Scottsville
Pietermaritzburg 3209
Tel: (033) 346 0049

Midlands Community College

PO Box 40
Nottingham Road 3280
Tel: (033) 263 6586

Nansindlela

PO Box 20
Cato Ridge 3680
Tel: (033) 783 4301

List of distributors of egg packaging material

Van Leer manufactures egg trays (specialised for packaging eggs). The distributors in the different provinces are:

A&X Beleggings

Bronkhorstspuit, GAUTENG
Tel: (013) 933 3225
Contact: Louis van Zyl

Jerikan Bemarkers

Springs, GAUTENG
Tel: (011) 813 1200 (ext. 298)
Contact: Johan de Vries

L. Komm Wholesalers

Vereeniging, GAUTENG
Tel: (016) 422 2097

Jamaica Wholesalers

Brakpan, GAUTENG
Tel: (011) 740 1718
Contact: Louis De Agreta

Driesan Plastic

Groblersdal, MPUMALANAGA
Tel: (013) 262 3353

Brown's Cash & Carry

Ficksburg, FREE STATE
Tel: (015) 933 2301

FamPak

Parow, WESTERN CAPE
Tel: (021) 93 3524

Western Province Cooperative

Wolsely, WESTERN CAPE
Tel: (02361) 42240

Highfield Manufacturing cc

Kroonstad, FREE STATE
Tel: (0562) 125531