

## Challenges facing pig farmers

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### Present scenario

At present the total pig population is estimated at 1.5 million pigs (Directorate statistical information, May 2000) with the distribution being as follows:

1.	Eastern Cape	281 000	* includes non-commercial pigs
2.	Western Cape	227 000	
3.	North West	192 000	
4.	KwaZulu-Natal	191 000	
5.	Gauteng	188 000	
6.	Mpumalanga	174 000	
7.	Northern Province	152 000	
8.	Free State	109 000	
9.	Northern Cape	14 000	

This ranks South Africa as third in Africa, after Nigeria with 3.9 million and Madagascar with 1.6 million pigs. The world's largest pig population is found in China with 430.5 million, with the United States of America second with 56 million.

It is generally estimated that the sow population is about 110 000 for commercial piggeries in South Africa. To put this into a global perspective, four years ago there were already five companies in the United States of America with more than 150 000 sows each.

Efficiency of production is usually measured by dividing the total weight of feed used by the total weight of meat sold over a period. This figure, the dead weight feed conversion (DWFC), has remained fairly constant for the average South African producers at 4.2 : 1 over the last 5 years. The top 25% of South African pig farmers have improved their efficiency to 3.6 : 1 while the worst 25% produce at a DWFC of 5 : 1 (SPESFEED NEWS 2000). Although some of the worst 25% of producers do have lower feed costs through the use of by-products, the overall cost of production would still not be lower than those of the top 25% of producers.

The (weighted) average feed cost in South Africa is about R 1 000/ton at present. If we assume that all the producers were using the same feed then the top 25% of producers have a feed cost of R 3.60 per kilogram of meat produced while the least efficient produce at R 5.00 per kilogram (Table 1).

With international trade in pork increasing due to all the combined forces of globalization the growth areas for pork production must be those areas with the lowest feed costs. These regions are North America, Australia and South America with the former Soviet block waiting in the wings if they can get their act together politically. The latter, can definitely, also be said for Africa.

My company, Hathaway Farms (PTY) Ltd, produces maize, soya and lupins which is all fed to our 650 sow herd on three sites. We run a 150 cow beef herd whose purpose is to utilize all the non-arable areas and utilize crop residue. The calves are all marketed as finished cattle out of our feedlot.

The pigs are all marketed as baconers to Eskort Ltd, which is 40 kilometers down the road from our farm, at around 70 kg dead weight.

We have managed to reduce our DWFC conversion from 4.4 : 1 to 3.9 : 1 for the first half year of 1999 to the second, purely by reducing theft of both feed and pigs. We erected security fences, employed night guards and closed down one leased piggery which was too difficult to control. In the process we reduced our herd for 800 to 650 sows. Since we began farming with pigs this was the first time we reduced our herd and it was not because we wanted to, we had to, to survive.

During 1998/1999 a world-wide price collapse occurred in the pig industry. This was caused by a number of simultaneous factors which are easy to describe in hindsight but which nobody predicted.

**Table 1** A Comparison of South Africa feed cost with those of selected regions in the world.

Region	Rand/kilogram pork
United States of America	R 3.60
Republic of South Africa (top 25%)	R 3.60
Ontario, Canada	R 3.83
Republic of South Africa (average)	R 4.20
Netherlands	R 4.82
Republic of South Africa (bottom 25%)	R 5.00

On the supply side all of the world's pig industries responded to good prices in 1997/1997 (which themselves were the result of disease problems in Holland and other parts of the world) by increasing production, led by a massive 10% increase in the United States of America alone.

On the demand side of the price forming mechanism the importation of pig meat into China and the Far East practically dried up following the currency collapse of the Asian countries. The Russians also could not pay for their imports, so the pork destined for those countries and others were looking for a home at any price. Frozen Canadian baconers were available to butchers in Durban at R 3.50/kg. Local pork prices responded by dropping below this level. At the time feed prices began shooting up due to an unexpectedly poor maize crop while interest rates had reached 25%.

The combined effect of these trading conditions caused a drastic reduction in the number of pig farmers. In our area, Winterton, the number of piggeries have reduced from over thirty to eight remaining today. In the Estcourt area the reduction has been even more severe and the same can be said for most of the pig producing areas where herd sizes were small.

At Hathaway, we have in the past expanded our operation by leasing piggeries from producers who have given up. Because the rentals were low, being a buyers' market, we were prepared to put up with a degree of inefficiency caused by out-dated designs and theft problems. Last year's negative margins, however put an end to that approach, as no matter how cheap the rent was, profitability was impossible.

## The Future

As I see it, the challenges facing the pig farmers are to strive to become the producers of lowest cost pork of an acceptable quality at the factory gate.

I suggest the following ways of achieving this:

### Genetics

Use of nucleus genetics by means of AI on commercial farms. In this regard an AI station jointly owned by all leading private pig studs will soon be opened at Irene. The top boars tested at the central testing stations will be selected and semen made available all over South Africa to both commercial and stud herds.

At nucleus level, not only will frozen semen from overseas be used to keep abreast of genetic progress, as is happening at present, but also ova transportation by non-surgical means has become a reality. In one generation the same level as the donor can be achieved, where AI takes 4 or 5 generations to achieve a similar result.

### Housing

All in - all out, by room, building, or ultimately, by site, has now become almost essential. Multi-site production, coupled with early weaning while the piglet is still protected by its colostral immunity, is the secret of the phenomenal growth of the US and Canadian companies.

South African pig farmers have always felt that our climate is so good that we did not need climate controlled buildings. Very few, however, went down to the piggery at 3am in the morning on a winter night and lay down on bare concrete in an open sty with no clothes on to see how it feels.

Genetic progress has literally taken the clothes off a pig by reducing its back fat from some 30 mm to 10 mm. Fat pork doesn't sell so there is no way we can put the clothes back on.

We therefore have to build him a better house. I feel that our favourable climate, together with cheap electricity, gives us a competitive advantage over our Northern American competitors in that our heating cost for a similar building must be much lower for a similar result i.e. keeping the pig between its upper critical temperature and its lower critical temperature.

#### Economics of scale

There does not seem to be any further advantage beyond 2500 sows.

#### Capital Costs

The positive effects of good housing can, however, easily be negated by a high burden of interest payments if the capital has to be borrowed to erect them. It is a fine balancing act between the two. I think more interest free capital needs to be used by means of selling shares in existing businesses to raise capital for new buildings.

#### Nutrition

The animal feed industry needs a strong grain industry and low prices to remain competitive on the global stage. Use of cheap by-products can substantially reduce costs even if feed conversions suffer. Quantities are, however, usually limited and if too many producers follow this route the suppliers soon raise prices, thereby, negating the whole exercise. So please don't expect me to stand here and give all my secrets away.

Reducing feed wastage and theft can be very rewarding as I have mentioned before. Mechanized feeding systems, especially wet feeding, is the way to go here.

The use of animal scientists to formulate rations is also essential to stay at the cutting edge. In my opinion veterinarians are exerting an abnormally big influence on the pig industry. Almost every piggery uses consulting vets to monitor herd health. These vets often become advisors in nutrition, housing, genetics and even business decisions, fields in which they are often incompetent. Animal Scientists should do much more consulting on production matters.

#### Marketing

For years now farmers have been told to spend more time marketing their produce. To most pig farmers this means putting up slaughter facilities, processing and marketing their own pig meat and thereby adding value to their product. I think this is only a viable option for very small pig farmers with 50 sows or less who can supply a local or niche market.

The bigger pig farmers simply have to stay focussed on producing live pigs. Rather than moving into slaughtering, I foresee even more specialisation where some will focus on breeding and others on growing out pigs from weaning to slaughter weight.

To my mind marketing means marketing live pigs of the right quality and quantity consistently. If you have a signed contract for say, 300 pigs of class POR per week, then you need to supply exactly that. This can be done. The planned number of mating need to be met every week, budgets need to be constantly reviewed to ensure the right number of pigs are produced on a weekly basis.

Ideally expansion should only take place once a contract for the sale of the extra pigs has been signed. It takes approximately 256 days to produce a baconer from conception to market (i.e. 116 days gestation plus 140 day growing period). To this add another 90 days to erect the building which brings us to 346 days. Contracts should therefore be negotiated for one year down the line, or if the building already exist, for 9 months time.

#### Environmental Issues

These play a big role in pig farming, especially if you farm in a tourist area as we do. We thought anaerobic lagoons were the answer to manure disposal, but one by one they are beginning to fail. In response we are now separating the solids and spreading these mechanically on the fields. To prevent smells we need to disc this manure in on the same day that it is spread. By our calculations, which were made before the recent fertilizer increases, the pay back time for the cost of the separator and spreader should be under 2 years.

#### Land Tenure

The above challenges faced by the pig farmer are common to all producers world-wide. South African farmers face the added challenge of securing their own land tenure. No list of challenges facing the pig farmer or all farmers in South Africa would be complete without mentioning this problem.

This is by far the biggest challenge facing farmers in South Africa and a great deal of unproductive time is spent in an attempt to resolve this issue.

It must be said that while there is perception among the majority of the population and government that the white commercial farmer is somehow not entitled to his land, his security of tenure will progressively be eroded. In this scenario it cannot be considered wise to invest hard earned profits in new buildings to update or expand piggeries.

If a cold business decision were to be taken the wisest course would probably be to invest those same profits in a place like Western Australia where they are actively encouraging an expansion of their pig industry. In Australia the farmer is considered an asset to the country as opposed to the negative image the farmer enjoys in this country.

Some 40% of KwaZulu-Natal is tribal land which can be considered residential land rather than productive farm land. Even so, if this is considered to be insufficient land for the people, additional areas should be identified and acquired sooner rather than later until all "land hunger" is satisfied.

Only when the South African farmer has 100% security of land tenure will the playing field be level for him to compete with his international rivals.