

## VALUE-ADDING IN THE EASTERN FREE STATE

02 February 2013



Farmers in the VKB service area produce an average of 500 000t of maize annually. Going forward, a significant portion will be earmarked for chicken production.

Photo: Courtesy of Grain SA

*Annelie Coleman*

**Agribusiness VKB has stabilised the Free State grain market by establishing a chicken broiler project and building a state-of-the-art chicken abattoir in Reitz. Sas Kasselmann of Grain Fields Chickens says diversification contributes to food security and creates extra income. Annelie Coleman reports.**

Farmers in the VKB production area of the north-eastern Free State produce about 500 000t of maize and 90 000t of soya beans annually. Managing director of Grain Field Chickens, Sas Kasselmann, says VKB wanted to add value to grain production in the area. Soya oil cake and maize are the primary ingredients for broiler feed used by VKB's Grain Field Chickens' accredited broiler producers.

They plan to eventually use 20% of the maize and 21% of the soya bean crop produced in the VKB area for chicken feed. This will stabilise demand and prices of these commodities in the area. "Our business includes contract grower broiler farms, feed mills and the abattoir," says Sas. "Grain Field Chickens is a joint venture between VKB and the Industrial Development Corporation (IDC), with VKB owning 76,1% and the IDC 23,9% of the shares in the company. The IDC's shares will eventually be transferred to a workers' trust to benefit the workers of VKB and Grain Field Chickens. There are about 380 permanent workers employed."

VKB acquired a 40% share in Free State Oils, a soya oil crusher plant in Villiers, and constructed a feed mill at Vrede to supply broiler feed to the contract chicken growers. "We buy grain for the broiler project from our own producers. This in-house diversification option will contribute to food security in South Africa and create additional income for shareholders and investors.

"Our competitive edge lies in the integration and best-management of the vertical supply chain to produce quality, competitively-priced poultry products. We aim to establish Grain Field Chickens as a household brand in SA and neighbouring countries."

## A growing market

“Chicken is currently the world’s fastest growing source of protein for human consumption. South Africans consume 36kg of chicken per person per year. Statisticians project that this will increase to 47kg per person per annum by 2019,” says Sas. It took almost two years and R200 million to construct the Grain Field Chickens abattoir which started production in mid-2012.

The current throughput is 40 000 chickens a day, which should increase to 200 000 at the completion of the final phase in mid-2015. Frozen chicken for the wholesale and retail markets is marketed through 22 VKB and 24 NTK outlets as well as 17 NTK maize meal depots. The company supplies the Boxer Group of supermarkets and will soon supply the Spar Group.

## Contract growers

A group of about 16 farmers, in a radius 150km from Reitz, are contracted to grow broilers and paid per kilogram of live chicken delivered at the abattoir. Chickens grow out in 120m x 15m controlled-environment houses. The number of houses per farm varies from two to 12. Using economies of scale, Grain Field Chickens buys in day-old chicks from Eagle’s Pride hatcheries and sells them on to farmers who also buy formulated feed produced at the VKB mill in Vrede.

Broilers are ready for slaughter at 33 to 35 days and VKB Logistics transports them from the farms to the abattoir. “Idle time at the abattoir is minimised to prevent heat build-up, which increases stress levels and mortality rates,” Sas continues. “The current slaughtering capacity is 9 000 chickens an hour.”

## Food and health

The broiler feeding programme begins with pre-starter crumbles (from arrival to day 10), starter pellets (day 10 to 17), grower pellets (day 17 to 24), finisher pellets (day 24 to 28) and post-finisher pellets (day 28 to 34), says operations manager of the broiler section, Ben Grobler.



*Grain Field Chickens created nearly 400 permanent jobs in the first phase of its project, which is partly funded by the IDC. Photo by Annelie Coleman*

“The day-old chicks are from the Cobb 500 and the Ross 308 breeds, known for their good feed conversion rate, rapid growth, uniformity, relatively low production cost and high meat yield. They maintain an average daily growth of 56g over a 34-day period,” says Ben.

Contract growers must comply with the company's strict hygiene standards. Grain Field Chickens cleans and sanitises the chicken houses, which have automated climate control systems. Temperature, humidity and CO2 levels are controlled for optimum production, growth and health of the birds. Disease is prevented by constant monitoring. "Infectious bronchitis, Gumboro disease and Newcastle disease are major threats to the poultry industry. Newly hatched chicks are vaccinated and blood samples are taken regularly to monitor the health status of our operation," Ben explains.

### **Water recycling**

The slaughtering process uses between 12l and 15l of water per chicken. A dissolved air flotation unit is soon to be installed at the plant to remove fat and other biological material from the water. The company is investigating the use of an integrated pond wastewater system in conjunction with the Nketoana municipality and the Water Research Council. Sas says that this environmentally friendly system will cost less than a conventional activated sludge plant.

### **Chickenomics**

High maize and soya oil cake prices have put the poultry industry under substantial pressure. Sas says the high volumes of maize exported in 2011 resulted in a local shortage which drove feed prices up. The poultry industry was dealt a further blow by the import of subsidised poultry products from Brazil, Argentina and the EU. SA, a net maize exporter, is a net importer of poultry, importing 350 000t in 2011. To produce this amount, exporting countries used about 360 000t of maize. SA could reasonably aim to stimulate import replacement activities.

In this case, 360 000t of SA maize could have gone into local broiler production, and another four or five large abattoirs could have processed chicken equivalent to imported volumes. As well as contributing to food security, this could be a source of job creation in South Africa.

[Source: [www.farmersweekly.co.za](http://www.farmersweekly.co.za)]