

# Standerton Feed Mill

Site Visit  
18 July 2014

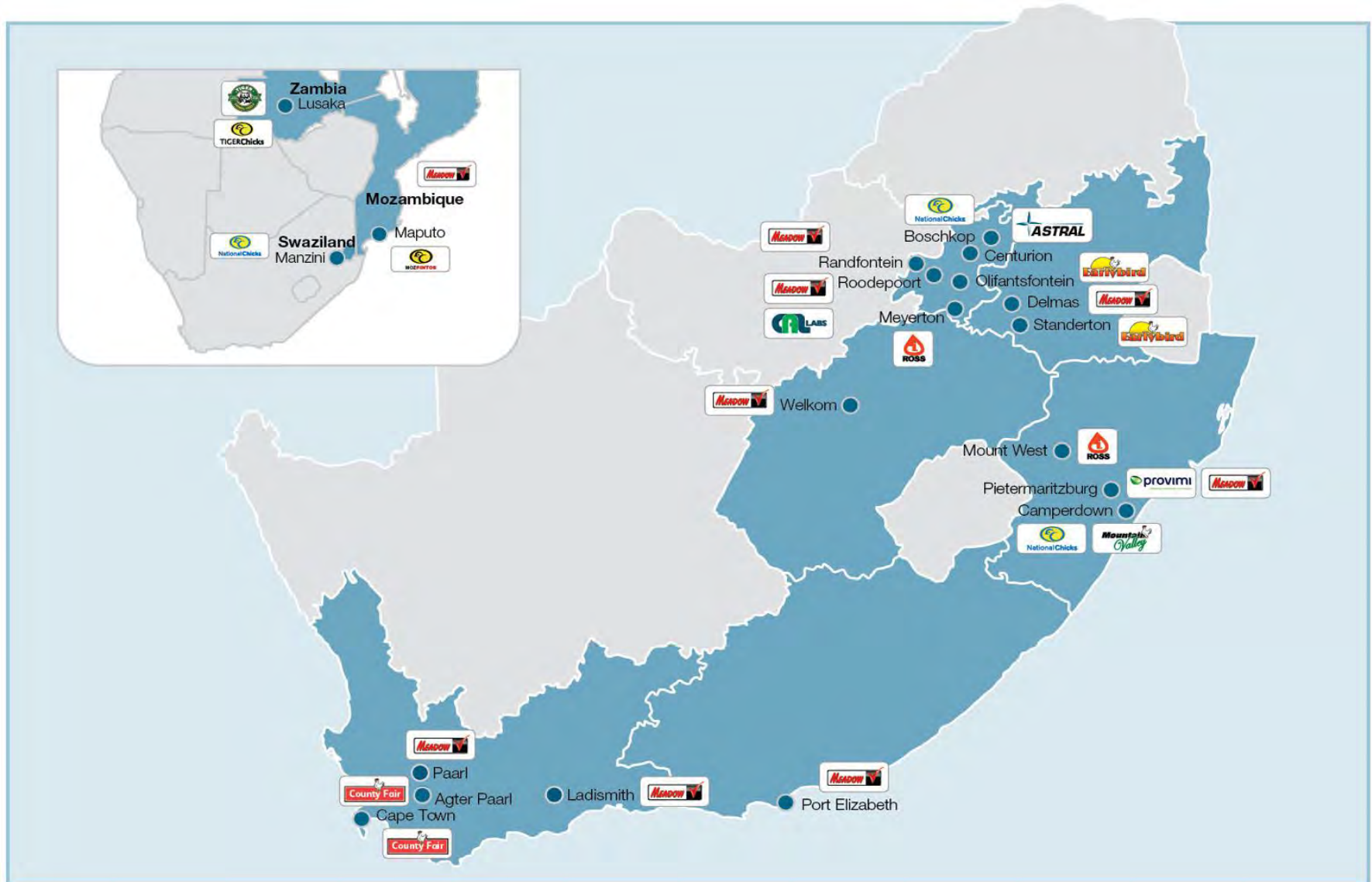
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## ASTRAL AT A GLANCE – QUICK FACTS

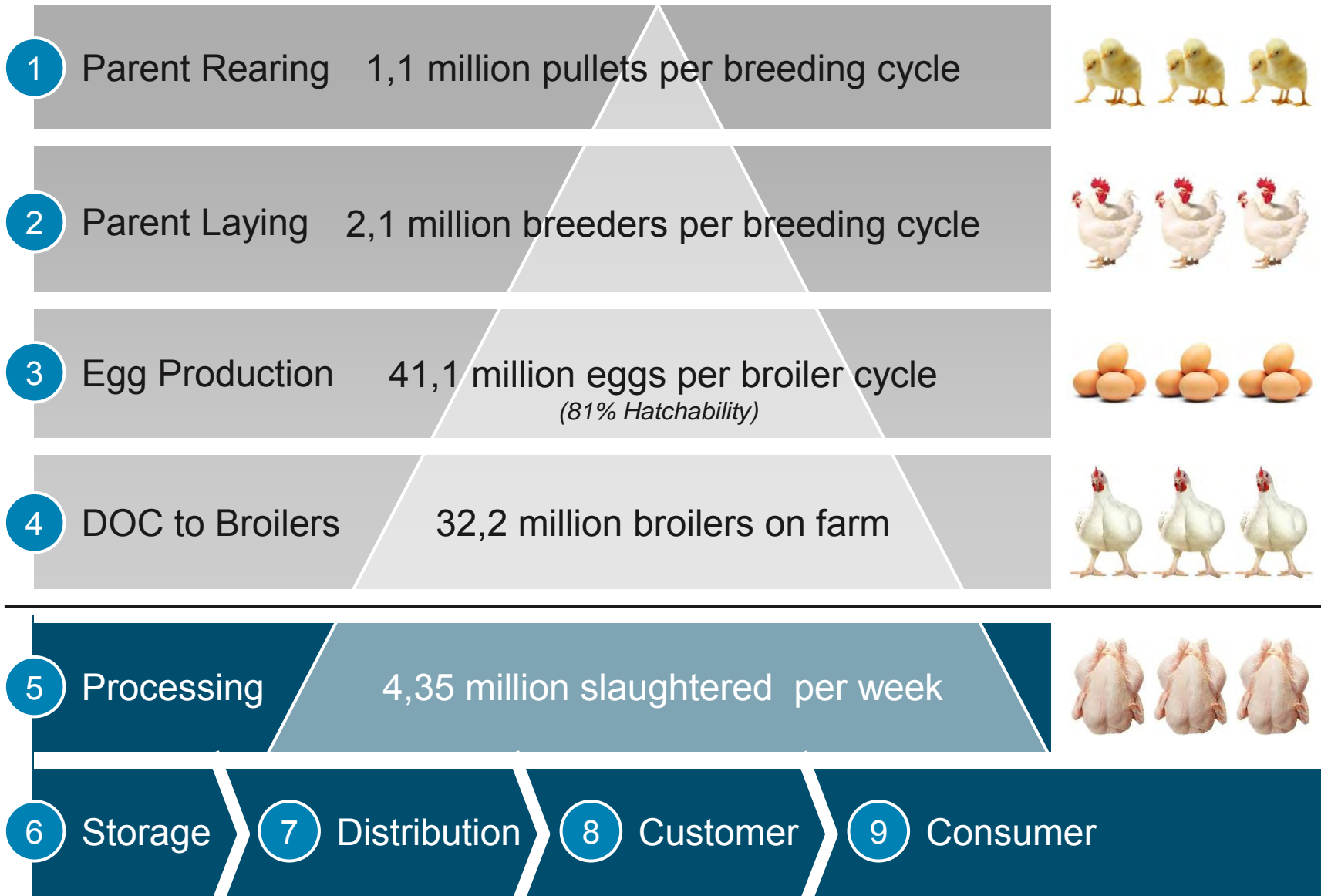


- ✦ Largest producer of broiler chicks in South Africa
- ✦ Second largest in number of chickens processed
- ✦ Represented in 4 Southern African countries
- ✦ In excess of 11 000 full-time and contract employees
- ✦ 7 000 hectares of agricultural and industrial land
- ✦ 4 poultry processing plants
- ✦ 5 610 000 day old chicks hatched per week
- ✦ 4 350 000 broilers processed per week (Oct 2014 ≈ 5 million)
- ✦ 1 300 000 tons of animal feed manufactured per annum
- ✦ 715 000 tons of maize used per annum
- ✦ Six feed mills in South Africa (now seven!)

# NATIONAL AND REGIONAL FOOTPRINT

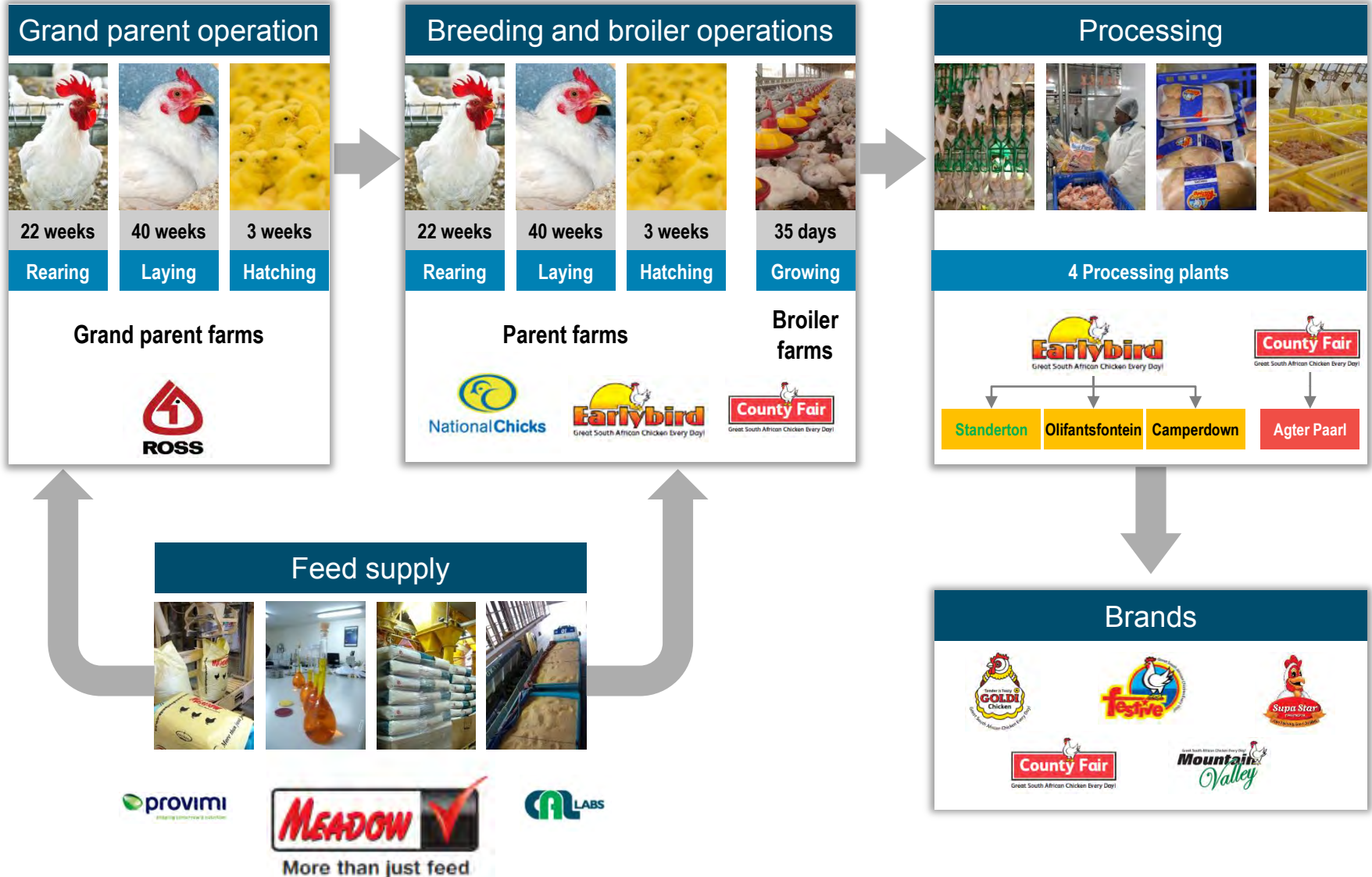


# ASTRAL POULTRY PRODUCTION CHAIN





# ASTRAL AS AN INTEGRATED POULTRY PRODUCER





**“Astral’s strategy is to be the best cost integrated poultry producer in selected African countries”**



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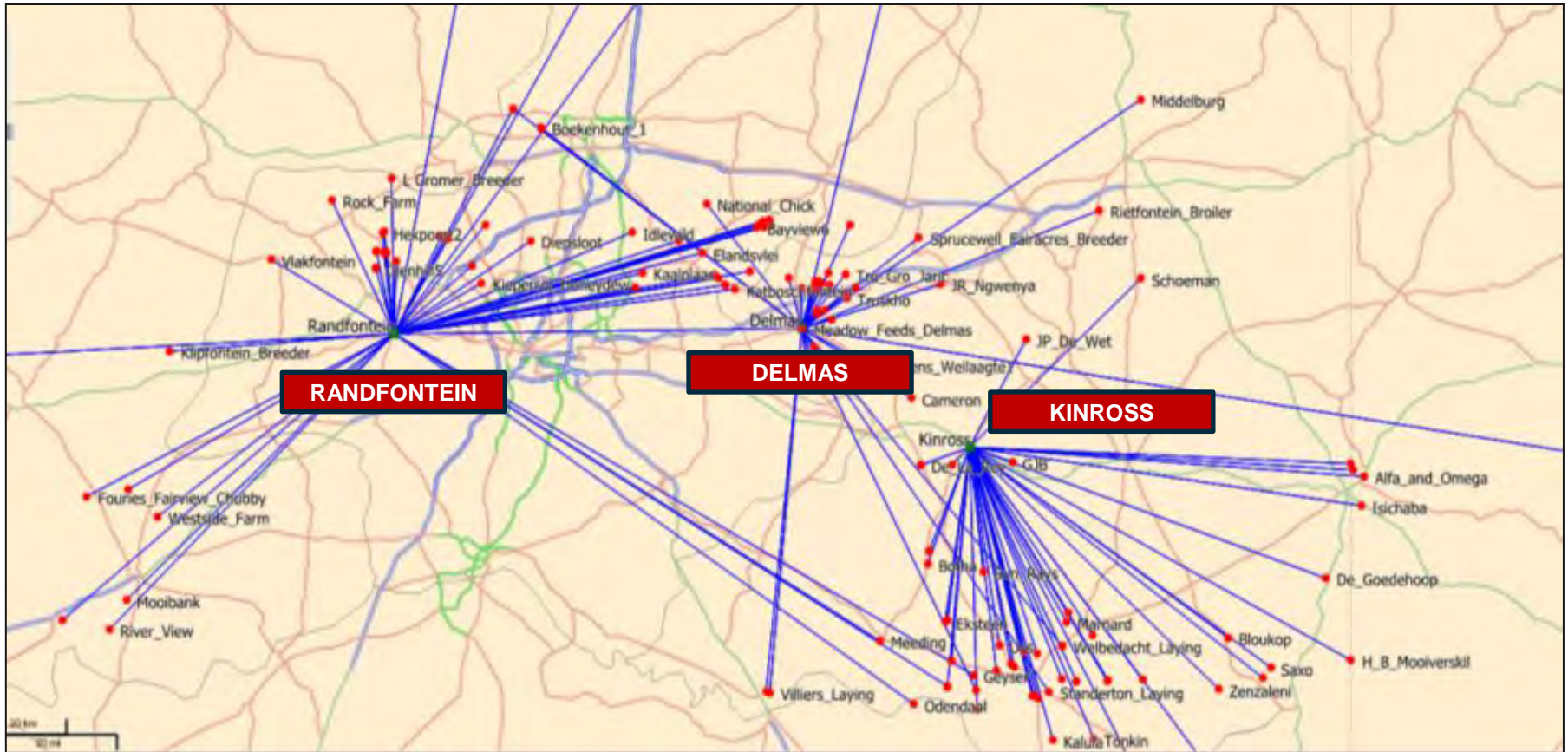
## RATIONALE FOR NEW FEED MILL



- Goldi in Standerton supplied feed from Afgri Kinross – 15 208 tons per month from 2004 (10 year agreement following acquisition)
- Astral processes 1,9 million chickens per week at its Goldi operation in Standerton
- The new feed mill was placed in Standerton due to the close proximity to the poultry farms operated by Astral in the region; and
- Standerton is centred in the maize and soya growing region of the country
- Guarantees for the supply of power to the plant were received from the Lekwe Municipality and Eskom
- In May 2012 the Astral Board approved the construction of a 40 000 ton per month feed mill in Standerton
- The new feed mill has been positioned so as to benefit from the Noble Resources Group who have built an oil seed crush plant on a neighbouring property

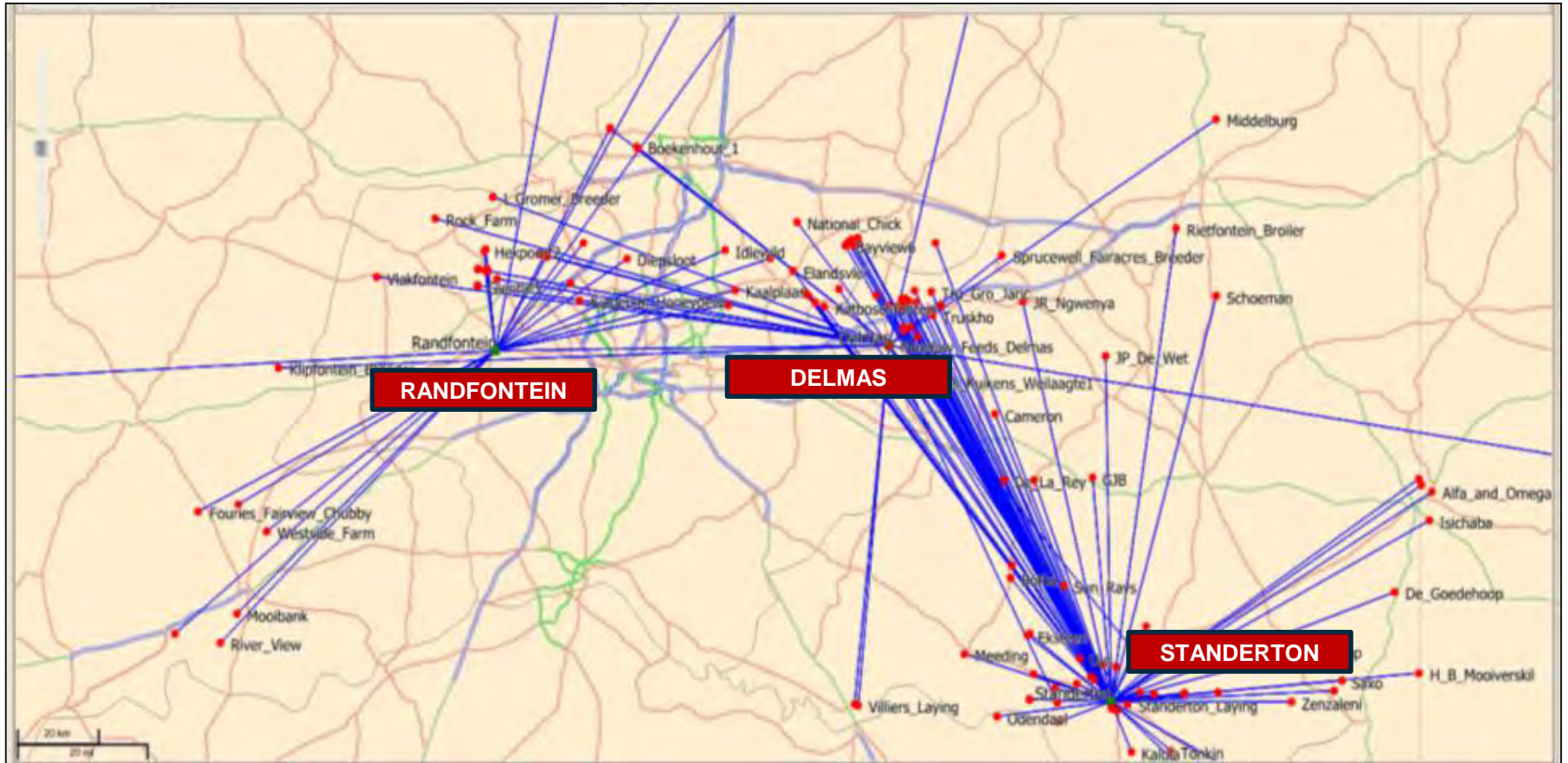


# CURRENT SCENARIO





# POULTRY FEED - MILLS OPTIMISED





# FEED MILL SITE





# FEED MILL SITE







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## PROJECT OVERVIEW



- The new feed mill has a design capacity of 80 tons per hour or 40 000 tons per month
- The feed mill has been designed and built with ample spare capacity to facilitate expansion of the poultry business in the Standerton region in the future
- Construction work on the feed mill commenced in November 2012
- The mechanical equipment installation commenced in August 2013
- Plant commissioning commenced in June 2014
- Feed production has commenced with production of all Afgri volumes from August 2014
- Producing 28 000 tons by October 2014 (capacity utilisation – 70%)
- Project budget of R200 million
- Addition to scope – broiler breeder building for future rationalisation

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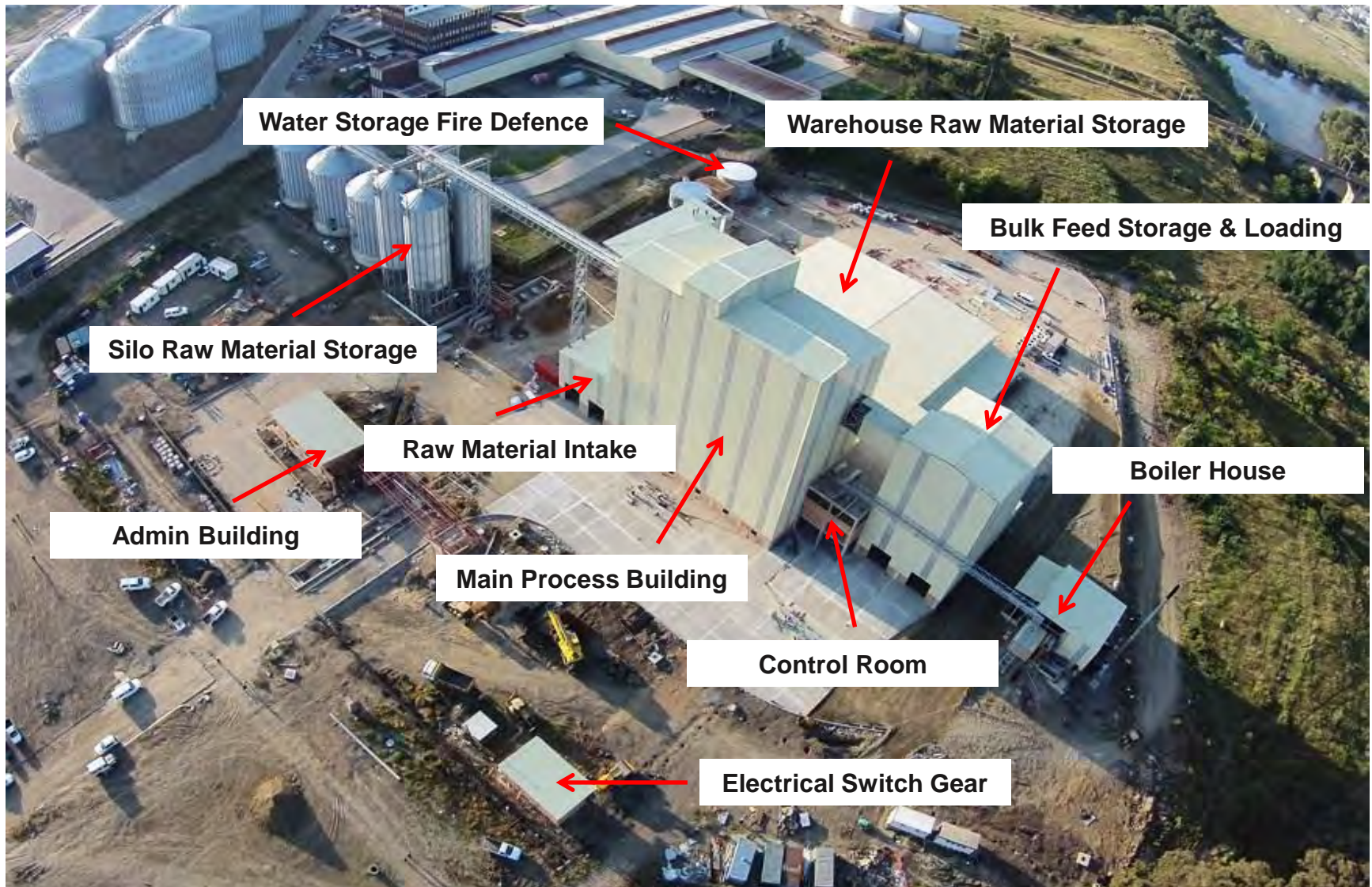
## PROJECT OVERVIEW



- A maximum of 180 people have been employed on the construction project at any one point (excludes material suppliers such as steel fabrication off site)
- 54 permanent jobs to be created when operational
- 20 of these people will not be employed by Astral directly but by service providers such as the security company and outgoing bulk transporters
- A DTI Manufacturing Investment Programme Grant of R30 million was approved in October 2013
- The new feed mill makes use of the latest technology and is more energy efficient compared to the older feed mills in South Africa
- The new feed mill will reduce the cost of producing poultry feed due to lower labour requirements and efficient cost of production



# SITE DESCRIPTION



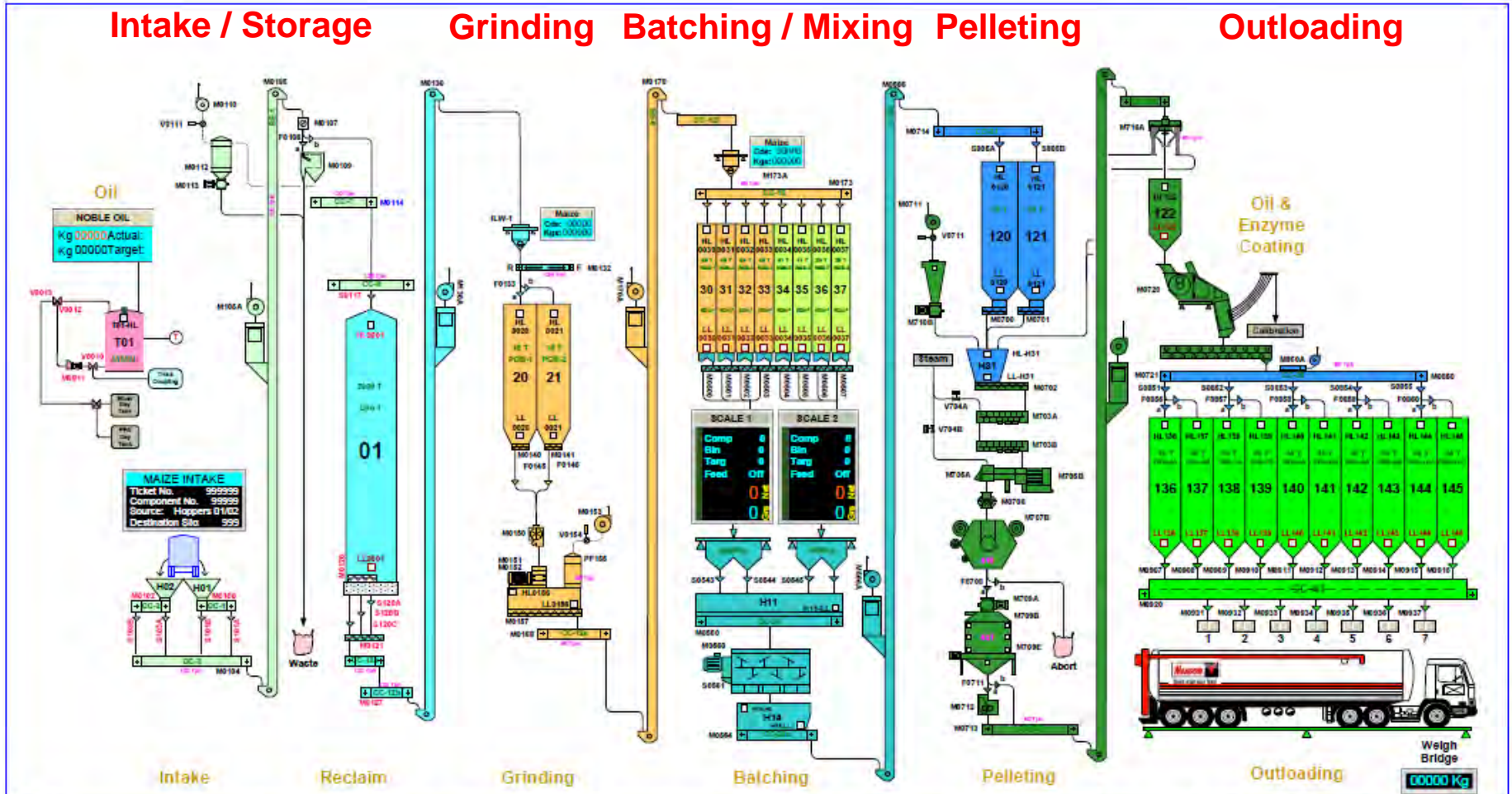
# PROCESS FLOW



## Intake / Storage

## Grinding Batching / Mixing Pelleting

## Outloading



Meadow:	Date:
InLogic:	Date:
Techmach:	Date:

## Meadow InTouch Control System

### Meadow Feeds Standerton

Process Flow	Date: 12/05/2014	IP: 101/102/101 Rev 3
	Prepared By: A. Wheatley	Size A3
		Sheet: 1 of 1



- Numerous ingredients are used to produce poultry feed
- These raw materials are received, stored and processed for use as required
- The respective ingredients are held in proportioning bins before batching across scales
- The weighed ingredients are then transferred to the mixers
- The ingredients are processed through a set mixing cycle
- The mixed feed is then transferred to pre-pelleting bins for storage prior to pelleting
- The feed is processed through a conditioning cycle where steam and heat treatment of the feed takes place
- The feed will then pass through a pelleting die where the pellets are formed under a process of applied pressure and heat
- Following cooling the pelleted feed is transferred to storage bins prior to loading into the bulk delivery vehicles



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# AVERAGE BROILER FEED FORMULATION



MAIZE	65%
FISHMEAL	5%
SOYA OILCAKE MEAL	12%
FULL FAT SOYA	9%
SUNFLOWER OILCAKE MEAL	5%
OTHER	4%
TOTAL	100%

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# “OTHER” INGREDIENTS



MACRO MINERALS (Limestone, Monocalcium Phosphate, Salt, Sodium Bicarbonate)

VITAMINS AND MICRO MINERALS

SYNTHETIC AMINO ACIDS (Lysine, Methionine, Threonine)

ENZYMES

MEDICATION

## *VITAMINS:*

Vitamins A, B, C, D, E, K, Niacin, Folic Acid, Biotin

## *MICRO MINERALS:*

Molybdenum

Selenium

Manganese

Copper

Zinc

Iron

# STANDERTON FEED MILL SITE – EARLY 2012





# GROUND BREAKING CEREMONY – OCTOBER 2012



# PROJECT PROGRESS – DECEMBER 2012





# PROJECT PROGRESS – DECEMBER 2012





# PROJECT PROGRESS – FEBRUARY 2013





# PROJECT PROGRESS – FEBRUARY 2013





# PROJECT PROGRESS – FEBRUARY 2013





# PROJECT PROGRESS – FEBRUARY 2013





# PROJECT PROGRESS – MAY 2013





# PROJECT PROGRESS – MAY 2013

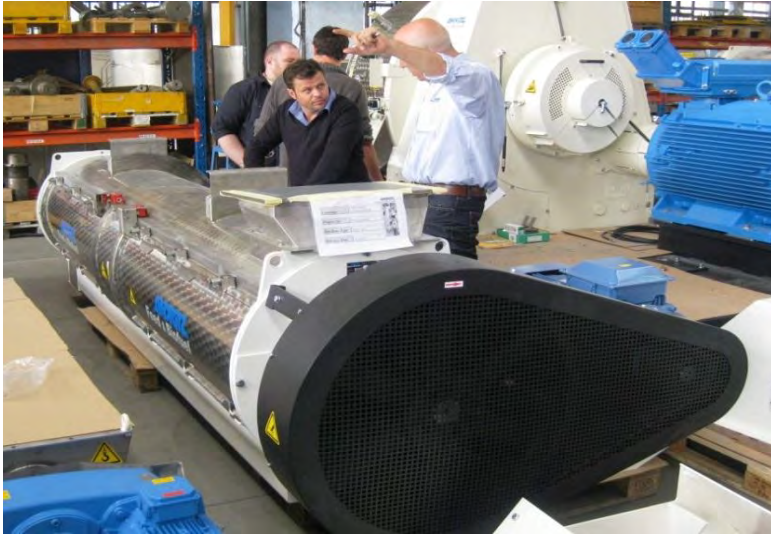




# PROJECT PROGRESS – MAY 2013



# PROJECT PROGRESS – MAY 2013





# PROJECT PROGRESS – MAY 2013





# PROJECT PROGRESS – MAY 2013



# PROJECT PROGRESS – AUGUST 2013





# PROJECT PROGRESS – AUGUST 2013



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# PROJECT PROGRESS – AUGUST 2013





# PROJECT PROGRESS – NOVEMBER 2013



# PROJECT PROGRESS – NOVEMBER 2013





# PROJECT PROGRESS – NOVEMBER 2013



# PROJECT PROGRESS – DECEMBER 2013





# PROJECT PROGRESS – DECEMBER 2013





# PROJECT PROGRESS – DECEMBER 2013





# PROJECT PROGRESS – DECEMBER 2013



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# PROJECT PROGRESS – JANUARY 2014





# PROJECT PROGRESS – FEBRUARY 2014



# PROJECT PROGRESS – FEBRUARY 2014







THANK YOU