

Excellence in semen quality



Marguerite Schwarzer

As a market leader in the pig industry, PIC South Africa realizes the responsibility that lies on our shoulders to be able to deliver a world class product on a consistent basis. Being able to sustain that performance, PIC made some changes, upgrades and additions to our current features.

- Looking at semen production equipment, PIC added a TwinPacker, automatic tabletop semen packaging system, as backup to the current 950 tubes per hour MiniBSP fully automated semen packaging machine. Tube packaging capacity have increased by 57% with the addition of this piece of equipment,
- Boar capacity were increased at our current boar station. The 150 capacity boar station near Middelburg were doubled to house 300 boars – a 50% increase in housing facilities. That did not only provide more animals at hand but caused great increases in genetic trends due to an increased population size. A second boar house facility had been built on a brand new site, adding further capacity of 200 boars to the operation.
- PIC extended all our semen routes to be able to deliver semen on any customer's farm, country wide.
- Semen extender determine the longevity and semen quality at time of expiry. PIC upgraded to Androstar® Plus, a long term semen extender, to ensure semen can handle temperature fluctuations better and has the necessary antibiotics, buffers and antioxidants as well as a specialised membrane protecting agent.
- To ensure no identification error between different genetic line boars, or individual boars, PIC micro-chipped each boar in the boar station that enables the laboratory to operate strictly on bar codes and provide no room for human error.
- PIC upgraded the computer software program that perform semen evaluation to a world class CASA software program, AndroVision®.

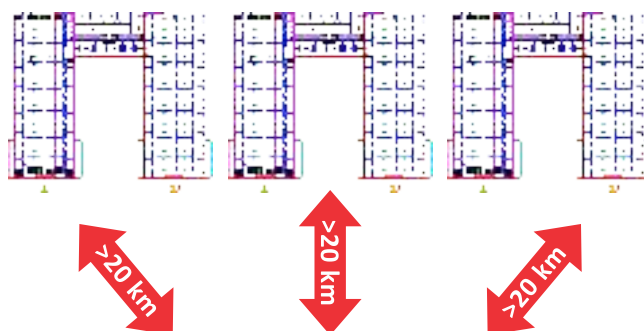
PIC RSA liaised with multiple international sources of expertise in order to implement satisfactory contingency plans to ensure continuous production of semen for the next number of years.

This solution includes establishing multiple boar stations where semen collection will occur, pre-diluted and then transported to the off-site lab, located in a central area. That will increase biosecurity measures, allow for specialist

functions in terms of specialist Boar House Manager, specialist Laboratory Manager, stockmen and drivers. By establishing more than one boar house, 20km apart, the boar houses become contingency for one another, without affecting semen production. This multi-site production flow created opportunity to PIC RSA to improve boar quarantine facilities to supply boars to multiple boar stations. The Boar Training and Quarantine Centre was established near Magaliesburg and is in full operation since late 2018.



Alteli de Villiers in the Boar Training and Quarantine Centre



Contingency layout

To implement this strategy, PIC removed the semen production laboratory off-site to a neutral area, where pre-diluted semen can be received from the different boar stations. The off-site lab also provides for advantages of its own.

- Overall hygiene improved with epoxy floors and walls, stainless steel equipment and surfaces and glass and aluminium finishes.
- Temperature maintenance is enhanced by the cement ceiling of the lab and multiple heavy duty air conditioners.
- Although no animals are on the premises, a strict shower in and shower out policy is followed to ensure top biosecurity. Semen from across provincial borders can be processed without having boars on site that might be at risk. Time management can be planned better as semen collection occurs on multiple sites simultaneously.
- Workflow of the employees is a major benefit as there are more flexible logistics, processing times can be planned

better and most importantly, specialist functions can be applied. A newly appointed, dedicated Boar House Manager can focus on semen collection and animal welfare and management aspects while a dedicated Laboratory Manager can focus on the processing and events occurring in the lab.

We are so proud to announce that our semen laboratory is in full operation and that our second boar site is under construction and will be commissioned shortly. Watch this space for updates on this exciting development.

PIC will always stay true to our motto of Never Stop Improving – and in this case we will Never Stop Improving Semen Quality.



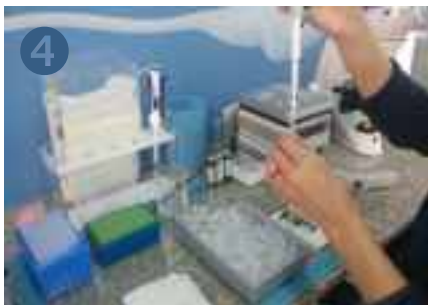
Pre-diluted semen received from the boar station



Semen ready for processing



Semen analyses station



Semen analyses



Semen analyses



Cooling and packaging room



Never Stop Improving *Semen Quality.*