

Reaching new heights with drone technology

The Sernick Group has welcomed the opportunity to implement drone technology in their own commercial farming practices and has since been researching new ways to benefit from it. The application of a remotely piloted aircraft system (RPAS), or drone, for commercial use in agriculture, was officially approved by the South African Civil Aviation Authority (SACAA) in October 2019; as a result Sernick started their own remote aircraft research and development in cattle management.



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"Setting new benchmarks, especially in agriculture is part of the Sernick vision. Technology is inescapable, and therefore we must adapt and incorporate it to maximise its impact to our advantage. With this research into the use of drone technology in cattle farming, we hope to develop viable solutions for us as a company – as well as other commercial farmers," says Carel Serfontein, CEO Sernick Group.

Sernick's drone research focuses on cattle detection, weight management, cattle movement, pasture management and minimising livestock theft.

Remote monitoring of cattle and pasture can save farmers precious time and money while optimising human and natural resources. And the aerial view a drone offers gives a new perspective that is not always visible at eye-level. Cattle monitoring specifically focuses on the health of the animals, determining weight and movement. While the pasture management function determines the health of the available pasture and water availability.

When combined, a farmer can use this data to make informed decisions about moving a herd to the most appropriate pasture.

Utilising technology, increasing safety

Drones can be used to safely and securely spot trespassers and irregular activity in real-time. According to the National Stocktheft Prevention Forum, livestock to the value of R1.24bn were stolen in South Africa during the 2018/2019 year. The financial impact of livestock theft is severe and can easily cripple farmers, thus further affecting food security. Remotely operated drones offer the opportunity of increased monitoring and can help close the gap between resource shortages.

At the helm of this research is 23-year-old, Ziphezinhle Gabuza better known as Boyzie. After Boyzie matriculated from Vryheid Landbou High School, he joined the Future Farmers Foundation. His successful completion of the programme secured him a position at a large commercial farm in Australia where he gained valuable experience in stock management.

On his return to South Africa, Boyzie attended the RPAS Training Academy in Johannesburg and received his remote pilot license. He now works as the drone operator for the Sernick Group and has applied his experience and training to the research and development of identifying the five key areas for the application of drone technology in cattle management.

"I love what I'm doing now and I'm excited to make a positive impact on the future of cattle management in South Africa," says the young drone pilot. "Before I came to Sernick, I mainly worked in crop spraying, but cattle management is what I'm interested in. Now I'm doing research and innovating. It's exciting. It's great to be part of Sernick because of what they are doing and what they stand for, it's amazing."

The research for some of the key areas have already been completed and the next phase will be programming and further testing. The Sernick Group plans to make their research and programmes available for both emerging and commercial farmers to benefit from.

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