

How **interrelated** are they?



"Breed purity is nature's poetry"

Breed purity, considered by many as the cornerstone of responsible breeding, is a concept that includes both the pedigree and the intended form and function of a breed. For many centuries, farmers have aimed to preserve the unique traits and qualities that define a breed. Through both its conservation and utilisation, breed purity aims to maintain genetic diversity that forms the basis of the resilience and adaptability of cattle, which forms the foundation of responsible and innovative breeding. The latter is also central to a breeders' aims when it comes to the genetic improvement of their herds.

Breed societies and registries typically establish and enforce the standards and criteria for determining breed purity within their respective breeds which is typically measured through a combination of pedigree records, visual inspections, and genetic testing. Breed purity in essence thus refers to the degree to which an individual animal or a group of animals conform to the established breed standards and genetics of a specific breed. Breed purity is also central to maintaining the traits of any breed in terms of its genetic makeup/traits and physical characteristics that are distinctive of the breed. Purebred or stud animals are those animals that have been bred up to purebred status as a result of a number of crossings making use of full-blood or stud animals. The more generations of purebred ancestors an animal has, the higher its purity.

Structure within and among breeds

When we talk about population structure of our cattle, we refer to how different or similar groups, populations or breeds are in terms of their genetic traits that is the result of selective breeding and adaptation to their environment. Structure within and among breeds are interrelated to breed purity and is of course also an important factor in your breed management, conservation, and genetic improvement program. Population structure within and among cattle breeds, is dictated by a number of genetic and demographic factors, including the genetic diversity within the breed, historical demography and geographical isolation (that affect gene flow between populations) and of course selection pressure, both natural and artificial, that is typically applied in a breeding program. →



PRODUKSIEVEILING

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Tools to assess purity and structure of our breeds.

Structure and purity within and among breeds can be assessed making use of molecular genetic technologies. These technologies measure these characteristics very objectively and accurately and has become a valuable tool to breeders, researchers and breed societies. It is of particular value for breed societies when it comes to the verification of their pedigree records. A purity test requires a databank of genotypes of reference individuals whose breed of origin is known, the so called reference population. The individuals in a reference population should also reflect the full range of genetic diversity within a particular breed and should be unrelated. Of course one should avoid including animals in a reference population who's genetic makeup is unknown or not in compliance with the relevant breed standards. Scientists make use of the aforementioned principles and technologies to ultimately compare an animal's DNA to that of a reference population to establish the degree of genetic purity and the degree to which the population or breed is structured. These scientific tools are also valuable when it comes to crossbreeding programs where farmers take advantage of the different groups of genes that code for desired phenotypes within a breed.

DNA technology to test for purity and structure: Where are we?

Understanding DNA based testing requires a brief explanation of the DNA structure. The DNA molecule contains four variations of a chemical structure called a base. These variants are referred to in shorthand as A, C, G and T. Chromosomes are comprised of millions of these four bases arranged in a linear fashion called a DNA strand. The sequence of these four bases at specific sites along the chromosomes is what determines the genetic code for each individual animal. Also found throughout the animal genomes are specific sequences of bases repeated in a tandem fashion and referred to as microsatellite DNA markers. The genomes of mammalian species contain thousands of these microsatellite markers.

The microsatellite markers, exhibiting high levels of variation, is relatively uniformly distributed across the genomes of cattle (and other species) and have proven to be an extremely valuable molecular genetic markers for genetic studies. They have been and still are being used (results published in scientific papers) across the

world to assess structure, purity, levels of genetic variation (and inbreeding) and gene flow between and among breeds and populations, to name but a few applications.

Genomic population structure analysis thus assesses the degree to which breeds share genes/gene markers (e.g. Microsatellites or SNPs). It is however true that newer technology has been developed that includes single nucleotide polymorphism (SNP) markers that offer additional and often value adding information in the field of population genetics. Currently, there are a number of microsatellite markers approved and recommended by the International Society for Animal Genetics (ISAG). The Animal Breeding and Genetics laboratory of the Agricultural Research Council makes use of 11 ISAG approved markers to assess a range of genetic indicators (e.g. levels of variation, inbreeding, genetic differentiation, etc.) and a panel of 17 markers for paternity verification across various cattle breeds. By using microsatellites, the breed composition of an individual can be determined against the reference population. These markers surely are adequate for the intended purpose.



Photo: Wolhaarkop Tulis

Summary

The answer to the question of whether breed structure and purity is important, is certainly a yes. Understanding population structure within and among cattle breeds is essential for breed management, conservation and genetic improvement programs. It helps maintain genetic diversity, improve breed performance and ensure the long-term viability and sustainability of cattle populations. Knowledge regarding the genetic makeup of your animals also come into play when embarking on cross breeding, aimed at selecting for particular attributes that are important and in line with your breeding objectives.

“ *By carefully considering these factors, cattle producers can make informed decisions when crossing purebred cattle with non-purebreds, increasing the likelihood of achieving their breeding objectives and producing healthy, productive and genetically sound offspring.* **”**



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TULI CATTLE FEDERATION



of Southern Africa AGM

The 2nd AGM of the TCFSA took place on 8 May 2023 in Harare, Zimbabwe where Ben Raath, Stephen Mains-Sheard, Jim Bredenkamp, Ed Clark and Giel van Niekerk were privileged to attend. Drs. Helena Theron (SA Stud Book) and Grace (NERPO) also represented our society in Zimbabwe.

7 May 2023

It was with great excitement that the South African contingent set off having met up at OR Tambo International Airport. We were met at Harare Airport and were taken to Jan and Heather Kageler's home in Harare. We were introduced to their local beer *Zambezi* and quickly became well acquainted while enjoying supper and chatting about Tuli cattle late into the night.

8 May 2023

We had an early start to get the AGM underway at ZHB, Livestock Centre, Harare. We had a thoroughly productive day in the boardroom discussing the way forward and got to know our fellow Tuli breeders from Zim, delegates from AU-IBAR and Zimbabwe Government officials. It was great to see Chris and Oscar Johnson and meet other breeders.

9 May 2023

We all hopped on a bus and went to see Anne and Kevin Cook's Tuli Stud, where we had a practical discussion on the cattle and a practical inspector scoring session. This was followed by a visit to Uys Kirk's commercial Tuli herd where we also saw his Bush dairy where he milks Red Dane cows on a UHD grazing system.

10 May 2023

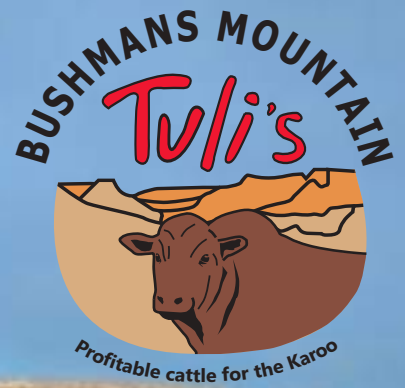
We visited First Ganyeka's Tuli cattle on his farm and had a productive practical session discussing Tuli cattle. We then continued and visited Doug Follwell's Tuli Stud herd and were lucky to see numerous Tuli cattle that had been imported from South Africa.

11 May 2023

An early start back to the airport for our flight to South Africa. We would like to thank the Zimbabwe Tuli breeders for their hospitality in hosting us in their homes, making us feel welcome in their country. Also, for their continual efforts to work together on combined breed runs and genomic sample collections to progress and market our breed in Southern Africa and the rest of the world. Thank you to AU-IBAR for their involvement in establishing the TCFSA through funding and for funding our trip to Zimbabwe.

We look forward to continual work with the Zimbabwean, Zambian and Namibian Tuli Breeders in the future. ■





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INFORMATION

forms the basis of decision making:

“ Without data and information you’re just someone with an opinion ”

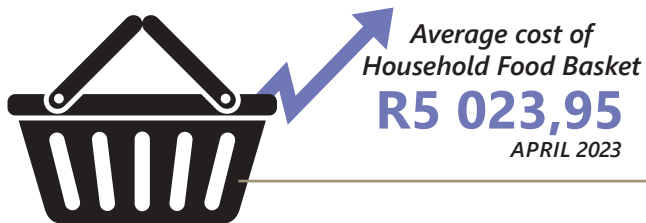
Cattle farming often involves long-term investments and strategies that are based on both historical and current agricultural data. The latter is a vital tool when farmers have to make informed decisions about their herd size, breeding programs and the market they serve, to name but a few. Farmers also need to constantly innovate to stay relevant,

which requires information and the application of technologies aimed at assisting them to access their market value chain. Our country’s food value chain is also getting more industrialized and primary production more and more commercialized in large-scale production systems that is putting more pressure on the profit margins of especially smaller farmers.



The role of our beef industry in perspective

In view of the competitive nature of beef cattle farming, there is simply no room for subjective and unfounded opinions when making decisions that will affect the success of a farming enterprise. Accurate and relevant information is thus a key component of a farmer's tools on a daily basis. A typical example that highlights the importance of data and information is the fact that performance recording data and information relating to the genetic potential of our herds are often lacking or deficient. This in itself is a stumbling block when it comes to sustainable and profitable beef production and is of particular importance in view of the fact that our beef industry is an important contributor to national food security. We should never forget that we have more than 60 million mouths to feed in our country! It is also a fact that a large percentage of South Africans are already struggling to afford a basic healthy food basket, a challenge that needs to be prioritised. This challenge is emphasised by the fact that the average cost of the Household Food Basket was R5 023,95 in April 2023.



The critical role that the beef industry fulfils in our agricultural economy and food security is well reflected by its major contribution to the agricultural GDP. Our farmers produced more than 10 million tonnes of beef over the past decade and our industry is also considered to be internationally competitive, which indicates that there are many opportunities knocking on our doors. Our strong trait is we have a quality product that is in demand in large parts of the world. In 2022, despite the impact of disease outbreaks and trade regulations instituted, beef to the value of more than R2.48 billion was exported. The growing income levels and continued urbanization and changing lifestyles and the diets of our emerging middle class have also resulted in increased meat consumption over the past decade, which also opens up opportunities to grow and expand our beef industry. The demand for beef is also expected to increase significantly over the next decade, and we need to ensure we have the necessary resources and genetics to satisfy the demand.

Diversifying our market

We often hear the terms "price takers" and "price makers". Having the necessary information about what the demands are from niche markets (e.g. grass fed beef), can enable farmers to add value to their products and even develop branded products which gives them more control over the price for their product. Applying information about the market value chain can also assist in diversification of a beef cattle farmer's business. It can for instance assist the farmer to go beyond just trading in live animals and create opportunities to produce value-added products such as processed meats, leather hides and by-products. All this of course again stresses the importance of having access to information of the market in question.

Nothing is more expensive than a missed opportunity

The statement "Without data, you're just someone with an opinion" underscores the critical role that data and information play in making informed decisions. We are inundated with information on a daily basis, which can indeed be overwhelming. The preferred approach is perhaps to focus on information relating to potential opportunities. An example is the recent indication from China for importing our beef.

Some points to consider when we want to up our game and be more competitive and profitable include factors such as our production efficiency and sustainability, which are dictated by the genetic potential of our herds. The latter can only be known if we have data and information relating to the performance of our animals and our industry as a whole. The "take home message" is that our industry is becoming more and more competitive and it is exerting a lot of pressure on producers to stay relevant in the value chain, which in turn requires the application of information to not only address our challenges, but also to grasp opportunities presented by the value chain.



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Alpha & Omega NAM Tuli

QUALITY



ADAPTABILITY

Farm Neuhof-Kowas, situated in the Kalahari, South-East of Windhoek, is home to the Alpha & Omega NAM Tuli Stud. With few registered, active Tuli breeders in Namibia, the breed is not yet widely known, but gaining momentum. There is an increase in farmers buying Tuli bulls, pure- and cross-bred females as they are realising the benefits of the medium framed, hardy and fertile breed.

Alpha Omega NAM Tuli was established in 2022 between Volker Rügheimer from NAM Tuli, Alwyn Marx and Gert Schmidt from the Alpha & Omega Stud, in the Eastern Cape. This joint initiative serves as an extension of the South African Alpha & Omega Stud, with the aim to increase Namibia's Tuli breeding stock. NAM Tuli also serves to overcome the challenges of Foot and Mouth Disease (FMD), which prevents South Africa from exporting their genetics.

Superior Tuli genetics were harvested in the form of embryos and semen at the accredited EmbryoPlus station, in South Africa. These genetics were imported shortly before the borders between Namibia and South Africa were closed, after the 2021 FMD outbreak. The first embryo calves were born in 2022 at NAM Tuli Stud.

Farming Conditions: The greatest contributor to decision-making

For Volker Rügheimer, a full-time engineer, practicality and efficiency is key to making his farming enterprise work for him. With serious time constraints, predation and low-and irregular rainfall, it was important to find a cattle breed that would yield good quality meat, efficiently, without the need for intensive management practices.

Volker initially started farming in 1996 with a herd of Nguni and Brahman cattle. After several years of using Tuli bulls and applying strict herd performance criteria, he has transitioned over to Tuli as his core herd. With assistance from Charl van Rooyen, the first Tuli bulls were imported from South Africa in 2009 from the renowned HBH and Alpha & Omega Tuli Studs.

He incorporated crossbreeding with Red Angus to provide sought after weaners for the traditional weaner export market to South Africa. This decision has also proven beneficial, with new export markets arising that have a demand for Angus and Angus crossbred carcasses.

Volker's Tuli cows are notoriously protective over their calves, reducing the losses due to predation (mainly leopard). The reduced need for parasite treatments and dehorning (due to the breed being mainly polled and parasite resistant) also served Volker well with his small workforce in his extensive farming enterprise.

The Tuli cattle markedly outperform other crossbred cattle on Neuhof Kowas, in maintaining their condition and reproductive efficiency. NAM Tuli relies heavily on fixed-time artificial insemination and embryo programs to maintain genetic diversity. Volker's partner, Dr. Julie Heusquin, a large animal veterinarian specialised in animal reproduction, maintains a conception rate on artificial insemination, ranging between 70-80% on average. Artificial insemination programs are done twice yearly, both in the summer and winter season. Embryo programs are executed randomly, only under ideal weather and veld conditions.



Tuli cows & calves:
SUMMER



Tuli cows & calves:
DRY SEASON



Experimental Breeding

Volker started experimenting with Akaushi x Tuli cross-breeding in 2019. The first animals were slaughtered in 2021. Although it was small carcass batches, meat quality and carcass yields were excellent.

The steers slaughtered in 2021 were raised in 2019, which was marked as an extreme drought year for Namibia. These steers gained in marbling and growth under heat- and fodder stress conditions during the drought, and still achieved average marbling scores of MS6-8 and even as high as MS10. Slaughter yields were between 61.5%-65% at 230 days of veldlotting and an average slaughter age of 26-28 months.

Chilled, deboned, full carcasses were shipped to Europe and chilled bone-in carcasses are currently exported to Angola, under a registered brand.

Unique Market Opportunities

Namibia boasts with some elite beef export markets, such as the EU & Norway. There is also a growing demand for high quality, whole beef carcasses to Angola. The EU market places great emphasis on meat quality as well as humane, sustainable farming practices. Grass-fed, hormone free beef is a sought after commodity in Europe. With the ability of Tuli and Tuli crossbreeds to yield good quality carcasses, combined with the ability to do this under field conditions (no need for feedlotting), makes it an attractive breed to farm with, in Namibia.

Discussions in the Namibian abattoirs suggest that the local market will, in future, place a greater emphasis on meat quality. Some producers have responded to this by changing the cattle breed they farm with. This, alongside the growing awareness of the breed may be contributing to the momentum gained in the country.

Namibia also has an export market for cattle breeding stock to Botswana, due to Namibia's FMD Free status. Botswana is limited, as is Namibia, in where they can source new genetics, due to the stringent requirements of maintaining EU export status.

The aim of Alpha Omega NAM Tuli is to promote the breed's meat quality traits and for farmers to realize the potential of the meat export market. ▀



Tuli x Angus weaners



Tuli-Akaushi cross steers under veldlotting



Beef cuts packaged for the EU export market

Marble Score 8 on an Akaushi x Tuli carcass

Beyond building a **UNIFYING** & **GROWTH-ENHANCING** vision for SA agriculture

Photo: Joshua Gaunt

When structuring growth-enhancing reforms, there is value in crafting a unifying overarching vision where each role-player has a sense of ownership, responsibility, and clarity about the possibilities of success. When such a vision is implemented, each party should continuously communicate success and glitches along the way. The

success stories offer encouragement and a sense of progress while outlining the snags in the process, assisting other stakeholders in knowing that there is work underway, helping them understand the challenges, and even collaborating to resolve them. When all this is missing, a vital economic reform plan may fail to receive much-needed support and full implementation. The responsibility for any collaborative reforms lies on all

parties involved to check in with each other and ensure supportive energy and focus from all sides. When there is a sense that one party is not applying themselves fully, the challenge should be rectified quickly to maintain momentum in implementation. This also helps ensure that all stakeholders keep an eye on the broader vision or outcome of the policy or programme reform.



Disappointingly, the vision that excited most role-players in the agricultural sector over the past two years is beginning to wane.

The South African agricultural sector had the opportunity to create an ambitious and unifying vision through the Agriculture and Agro-processing Master Plan (AAMP). Admittedly, the AAMP is not perfect, and some aspects were contested during its drafting stages. This is to be expected given the breadth of social partners involved in crafting it – it would be next to impossible to make everyone happy due to varied and diverse interests. Still, most social partners, such as the business community, government, and labour, agreed that the AAMP offers a framework to grow the agriculture and agro-processing sector, build competitiveness, attract more investment, improve inclusion, and create jobs.

“ These bold prospects directly address South Africa's social challenges, such as rising poverty, low economic growth, and high unemployment. ”

Each party involved in the AAMP has a bigger mission of resolving these broad societal challenges through relentless work in their businesses.

Notably, the AAMP was not a fluffy document; it was rooted in evidenced-based research that outlined the possibilities for growth and the current growth-inhibiting factors. For example, growth constraints such as biosecurity,

infrastructure, widening of export markets, registration of new crop protection chemicals, and various commodity-specific and regionalized plans are some of the aspects that the AAMP aimed to address. These were to be tackled simultaneously with managing the financial needs in the sector, specifically for new entrant farmers through the blended finance instrument, and the land needs for expansion through the yet-to-be-launched Land Reform and Agricultural Development Agency that was mentioned several times in the State of the Nation Address (SONA) by President Cyril Ramaphosa. The promise of these bold reforms in South Africa's agricultural economy led to estimates that the gross value added to the sector could expand by over 15% in the following decade.

Disappointingly, the vision that excited most role-players in the agricultural sector over the past two years is beginning to wane. Various challenges took focus away from the implementation of the AAMP, such as persistent load-shedding at the start of the year, logistical constraints at ports, protectionism in export markets, and the spread of animal disease. These events meant that the government and various industry stakeholders moved into "crisis" mode, and the attention shifted from the AAMP and its promise for growth in the sector. The political economy tensions that often arise between industry role-players and government while resolving these urgent and near-term issues further strain trust and the collaborative vision. Thus, these headwinds are weighing significantly against the AAMP's prospects.

Additionally, with the general elections ahead of us, the political leadership across the board may also devote more time to aspects outside the AAMP, further slowing the implementation prospects.

Still, given the importance of this developmental and progressive plan for the sector, there is a need for leadership across all stakeholders to realign and rekindle the AAMP's vision and outline steps for implementation. Therefore, implementation and operational planning are critical across various levels of government, mainly provincial and municipal governments, to ensure alignment and coherence in policy implementation. Failure to operationalize the AAMP will be tragic for the agricultural sector and create a precedent of premature abandonment of yet another well-conceived plan that was never fully implemented. There are further negative implications that will emerge – a damaging loss of confidence in the government and questions regarding the credibility, competence and capability of the state to implement government mandates. The loss of trust will imply that any other plan in the future will not receive the seriousness and commitment it deserves. The first step may not necessarily be deeply technical but more geared towards designing implementation and operational modalities where each role-player has a sense of ownership, responsibility, and clarity about the steps they must take to see the AAMP through. Again, the government must be at the centre of this process to lead the way. ■

The IMPLEMENTATION & ACCEPTANCE



Only weighing animals at weaning is NOT performance testing!!!

The developments in animal breeding over the last number of years are staggering. Ten years ago, we were at the dawn of the genomic era in animal breeding. Genomics promised to revolutionize the breeding industry. The DNA analysis of a hair sample, taken just after birth, could give an accurate estimation of an animal's potential as a parent. Worldwide universities and research institutions focus all their research efforts to develop new techniques to harvest the wealth of new information that genomics brings and implement it into the genetic evaluation of farm animals.

In both Europe and North America, governments also bought into the new technology and spend millions to subsidize the genotyping of breeding animals. In South Africa a consortium between government, the different breeding societies, universities, and service providers were formed to obtain money from funders to implement genomic evaluation of breeding animals in both the dairy and beef industry. The Technology Innovation Agency (TIA) stepped in and funded the project that consisted of genotyping of breeding animals, phenotyping of difficult to measure traits and research.

The reality quickly dawned on everyone that phenotypes were now more important than ever. Without a proper reference population that represent the whole breed, and good phenotypes, especially for the difficult to measure traits, the gains that can be made using genomics are extremely limited. In many breeds most phenotypes available were weaning weights and not much more. The different service providers, as well as breed directors, went to great

of new technology in the stud industry

lengths to motivate individual breeders to participate, by genotyping their animals and to do more complete performance testing. The idea was to get breeders to do performance recording on as many traits as possible for their whole herd. In breeds like the Bonsmara and Brahman the enthusiasm was tremendous. In some cases, breeders genotyped their whole herd, while others installed systems to measure individual feed intake on their farms (to improve the feed efficiency of their animals). Even expensive and difficult to measure traits like meat quality received attention in some breeds. Some breed societies invested large amounts of money from their saving accounts in the genotyping of animals, which led to genomic breeding values for those breeds much sooner than was anticipated.

The opportunities that this created for the breeders were endless. Better genetic goals were set which leads to the creation of new economic indices with traits not previously included, that allowed the breeder to select more profitable animals. Emphasis was on difficult to measure traits like fertility, efficiency, and product quality and less on growth. Genomically enhanced breeding values as well as parent verification became more accurate, while it also became easier to identify animals with genetic defects or carriers of specific genes, such as double muscling. Genes linked to adaptation has already been identified and in future such genes may become important in breeding programs for adaptation in the era of climate change.

Several breeds investigated ways to improve the genetic links between local and international herds, with the possibility of an international genetic evaluation in future. All this meant faster genetic progress and more profitable animals.

Unfortunately, many breeders and even whole breed societies decided not to participate in these initiatives. Several of these breeders also only measure weaning weight or don't measure at all. Although they still get breeding values for some traits from their service providers, the accuracies are low, and they can thus not utilize the potential of the modern technologies that are available. Low accuracy inherently means that the genetic gains obtained from genomic breeding values as not much better than using standard pedigree-based breeding values. Thus, if a farmer does not take measurements, but decides to genotype his animals, he will not get the full benefit for his investment. The difference between the top breeders that adopted the new technology fully and those who still do limited performance testing is growing and can be clearly seen in the genetic trends and price differences at auctions.

The implication of the non-participation of these breeds mean that they could lose their relevance and will be relegated to hobby breeds. They may even disappear in total from the South African animal production landscape. The same applies to individual breeders.

“ To rectify the problem, breed societies will have to implement drastic measures.

Genotyping of all breeding bulls in a breed should be compulsory. Whole herd recording with a clear set of minimum traits measured on each animal should be enforced. ”

“ Remember, collecting only weaning weight is not performance testing!!! ”

Several traits determine an animal's true value as a parent - not only weaning weight. In addition, weaning weight is a highly heritable trait and thus the gain from genomics would not be a much as for the lower heritable traits. Furthermore, weaning weight is highly correlated with other growth traits and can cause severe problems (dystocia, adaptation, and lower fertility) if single trait selection is performed.

Selection goals should be a balance between the performance of the animal, his "looks" (phenotype) and an ever-changing environment, while considering the needs of the commercial farmer and consumer. This means that performance testing, which remains the backbone of any genetic improvement scheme, should include a variety of economically important traits that is measured in the environment under which the animal's progeny is expected to produce. The economic index used in the selection program should also consider the needs of the consumer (who is going to buy the product) in 5 to 10 years in future. This means that traits, like meat quality, that may not seem important now, can be very important in future and should be included in selection programs. ▪



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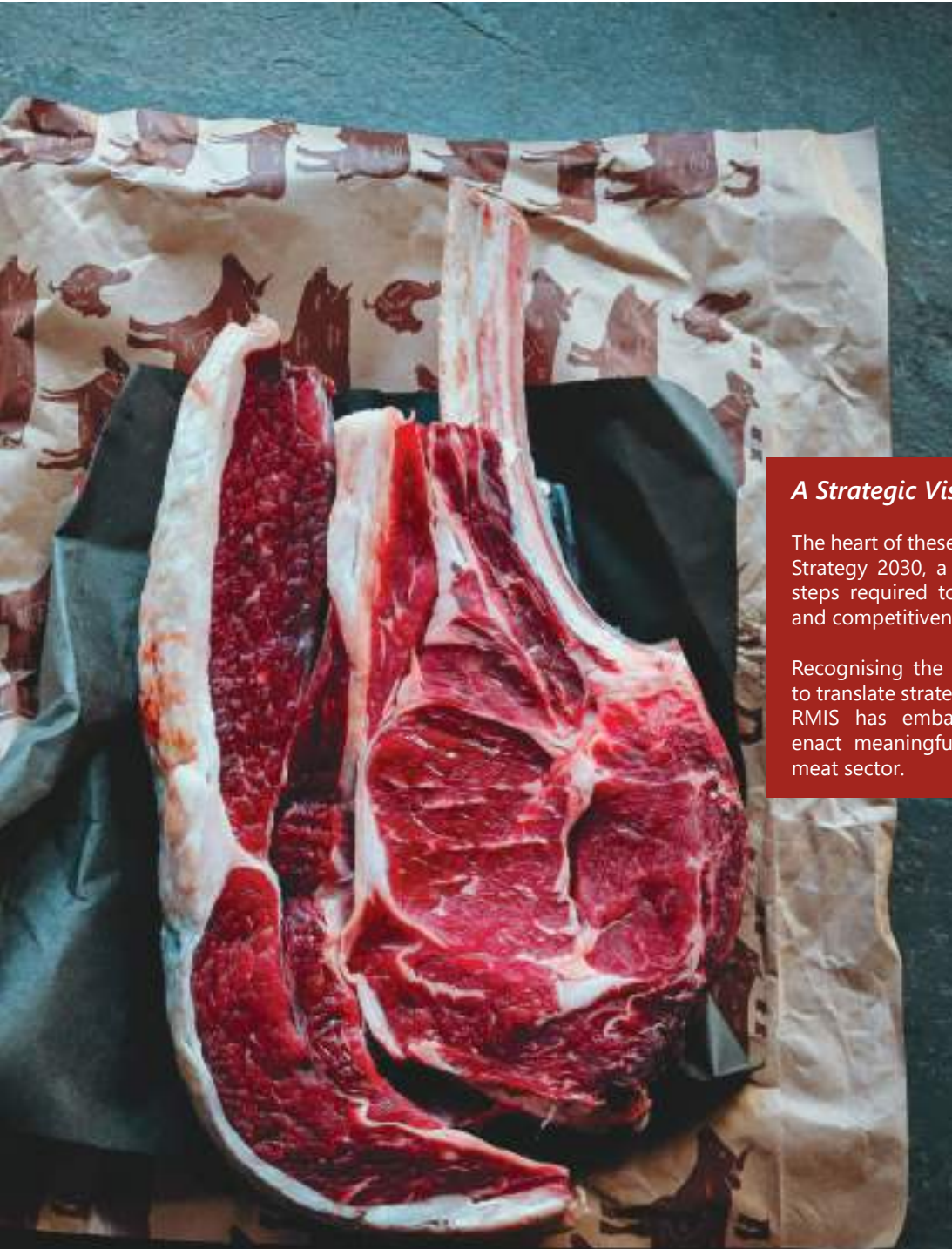
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FROM VISION TO ACTION

RMIS announces its **Project Portfolio**



The Red Meat Industry Services (RMIS) is pleased to introduce its Project Portfolio. These Projects are a strategic collection of initiatives crafted to meet industry demands, with a focus on addressing pivotal challenges, seizing emerging opportunities, and fostering innovation throughout the entire value chain, signifying a joint effort towards industry advancement.

A Strategic Vision for Progress

The heart of these projects lies in the Red Meat Industry Strategy 2030, a visionary roadmap that outlines the steps required to elevate the industry's performance and competitiveness.

Recognising the necessity of actionable interventions to translate strategic objectives into tangible outcomes, RMIS has embarked on an ambitious journey to enact meaningful change at every level of the red meat sector.

Diverse and Impactful Initiatives

Spanning a wide spectrum of focus areas, RMIS's project portfolio encompasses initiatives aimed at enhancing traceability, promoting sustainable farming practices, improving disease management, ensuring meat safety, fostering market access, combating livestock theft, facilitating communication, and driving research and development. The budgeted income for the 2023/2024 period amounts to R44 million and it is made up of the projects set out overleaf. →

Recordkeeping Systems Communication and Data Sharing (Traceability):

This project focuses on identifying, capturing, and efficiently sharing relevant traceability and production data in a standardised language, with the objective of championing industry traceability and data sharing to enhance production and trade.

Funding: 19% (R7,000,000)

Industry Animal Disease Recording System and Vet Support Services:

Identifying, capturing, analysing, and sharing veterinarian data on national disease occurrence to provide proactive treatment approaches, thereby enabling a national view of animal diseases to address issues promptly.

Funding: 10% (R3,700,000)

Industry Meat Safety Recording System and Vet Support Services:

Identifying, capturing, analysing, and sharing national meat safety data to address concerns, ensure compliance, and promptly recall/address safety issues.

Funding: 10% (R4,000,000)

Small Scale Farmer Development (LDS Project First Project):

This initiative aims to enhance the commercialisation of small-scale farmers through practical implementation and mentorship. RMIS has been designated as the implementing body for the Land Development Support (LDS) programme on behalf of DALLRD, overseeing a five-year initiative involving 35 farmers and an annual budget of R220 million. The objective is to promote sustainable production practices and facilitate small-scale farmer development through a turn-key offering.

Funding: Project is Self-Funded

Small-scale farmer Training (Inclusive Growth):

This initiative focuses on providing comprehensive training to small-scale farmers, covering various aspects such as production systems, reproduction, health, grazing, management, finances, and marketing. Additionally, educational content will be developed for secondary school students in collaboration with the Department of Education. The primary objective is to enhance small-scale farmer production and profitability while promoting livestock education at the secondary school level.

Funding: 14% (R5,400,000)

SA Red Meat Certification (Market Access, Export):

Providing a value chain certification for meat sold to consumers to ensure biosecurity, animal welfare, and meat safety through a value chain audit process, thereby enhancing market access and export opportunities.

Funding: 12% (R4,700,000)

Production Development through Communication:

Developing content to be communicated to primary producers to increase production, competitiveness, and sustainability, thus enhancing primary production.

Funding: 9% (R3,400,000)

Mobile Cattle Processing Units for Small-scale farmers (Inclusive Growth):

The project aims to develop, equip, and manage Mobile Cattle Processing Units to facilitate comprehensive animal processing for the LDS project and to cater to small-scale farmers. By enhancing accessibility to processing facilities, the initiative seeks to improve animal health and economic value.

Funding: 8% (R3 000 000)

Feedlot Market in FMD Red Zone (Inclusive Growth):

Creating a feedlot market in the red zone to limit cattle movement out of the area for marketing, thus mitigating the spread of Foot-and-Mouth Disease (FMD) while creating economic value.

Funding: 5% (R2,000,000)

Consumer Communication and Education through Beef and Lamb SA:

Promoting red meat consumption among consumers by providing scientific and industry feedback and highlighting the importance of red meat in a balanced diet and its preparation.

Funding: 2% (R700,000)

Research & Development:

Amongst other Research and Developing projects focussing on and implementing a beef grading system to enhance quality consistency, adherence to consumer preferences, and unlock premiums locally and internationally.

Funding: 8% (R3,300,000)

Stock Theft :

Providing training to combat livestock theft and facilitate meetings to address theft cases and issues, with the aim of decreasing animal theft and enhancing prosecution of offenders.

Funding: 5% (R2,000,000)

Collaborative Partnerships

Central to the success of these initiatives are the collaborative partnerships forged by RMIS with government agencies, educational institutions, industry associations, and private sector stakeholders. RMIS seeks to maximise the impact of its projects and effect meaningful change across the entire red meat ecosystem.

Measuring Success: Metrics of Impact

To gauge the effectiveness and impact of its interventions, RMIS has outlined a set of performance metrics, including the number of export markets opened, the volume of commercially slaughtered animals, and the success stories arising from flagship projects such as the Land Development Support (LDS) initiative. These metrics will serve as vital indicators of progress towards the overarching goals of the Red Meat Industry Strategy. ▪



BLOODLINE TULIS

Dewetsdorp, Free State

AFC/OEK 32 M
ICP / TKP 371 D
LICP / LTKP 394 D
AWI / GSI 105

ADRIAAN & ZIPPO LAMPRECHT
082 396 9071 | 082 492 4786
bloodlineboran@gmail.com





MALU kies Tuli



“ Ek glo dat as jou hart en siel in iets is sal jy dit suksesvol doen. ”

Alle besighede het vandag groot uitdagings om te oorleef en kop bo water te hou in 'n moeilike ekonomiese omgewing waar verbruikers onder geweldige druk is.

Die varkbedryf is geen uitsondering nie. MALU is 'n waardeketting onderneming wat in elke afdeling produktief en doeltreffend moet wees om vooruitgang te maak en te groei.

Die MALU waardeketting begin by die besproeiings afdeling waar mielies, sojabone en koring verbou word. Elke land se potensiaal bepaal die gewas, kultivar, plantdigtheid en bemesting om produktief te kan produseer. Tegnologie soos grondontledings, blaarontledings en internet gebaseerde besproeiingskedulering met vogmeters is onontbeerlik. Organiese kompos vanaf die varkplase en abattoir speel 'n belangrike rol in volhoubare produksie van graangewasse.

Verwerkte volvetsojameel en mielies word in ons veevoer afdeling gebruik om 'n verskeidenheid varkrantsoene te meng wat deur 'n varkspesialis voedingskundige geformuleer word. Elke mengsel word akkuraat deur die gerekenariseerde

aanleg vermeng en gelewer by die regte afdeling. Ons varkplase bestaan elk uit twee afdelings naamlik Reproduksie waar soveel as moontlik gesonde sterk varkies geproduseer word wat gelewer word aan die groei afdeling waar hierdie varkies so doeltreffend moontlik moet groei om 'n hoë kwaliteit slagvark te lewer.

In ons abattoir word 'n outomatiese slaglyn gebruik om doeltreffendheid te verseker en die proses so spoedig moontlik af te handel om 'n kwaliteit karkas te verseker. Na gradering van die karkasse begin die koue ketting wat deurgaans gehandhaaf word. Karkasse word daagliks gelewer aan ons MALU Pork ontbeningsfabriek in Kimberley. Hiervandaan word karkasse, bevrore primere snitte en verwerkte produkte landswyd gelewer aan groothandelaars, supermarkte, verwerkers en kleinhandelaars.

Rondom die spilpunte by Kimberley is heelwat uitval weiding wat benut kon word deur beeste, maar die vraag was: Watter ras? Met produktiwiteit en doeltreffendheid as maatstawwe het ons op die Tuli besluit en MALU Tuli Stoet is in Februarie 2022 begin. Met die aankoop van vroulike diere was die fokus op TKP syfers. Goeie vrugbaarheid beteken dat sy elke jaar 'n kalf produseer. Lanklewendheid van koeie wie se ma en

ouma lank in kuddes was is in aanmerking geneem. Speen en naspeen gewigte moes aan rasstandaarde voldoen en teeldiere moes fenotipies vroulik wees. Vanuit die staanspoor was die aanpasbaarheid van die aangekoopte diere fenominaal. Koeie afkomstig vanoor die hele land het aangepas en geproduseer met minimum byvoeding. Kalwers se speengewigte was goed en moeders se herkonsepsie uitstekend. Joker, MALU se eerste kuddevaar gaan 'n positiewe bydrae maak sodat ons met mediumraam diere met uitstekende vrugbaarheid en goeie groei kan boer. As nie selektiewe benutters van veld eet die Tulis gras, blare, struik en peule en bly hul kondisie goed met baie min of geen aanvullings. Dit maak die Tuli 'n baie doeltreffende ras om mee te boer. Die hantering van die diere is 'n plesier vanwee hulle rustige temperament. Ons is so beïndruk met die Tuli dat die meerderheid van ons bulle in die kommersiele kudde by Bloemhof ook Tulis is.

Ek kry soms die vraag of 'n vrou met beeste kan boer. Ek glo dat as jou hart en siel in iets is sal jy dit suksesvol doen. Die produktiwiteit en doeltreffendheid van die Tuli asook hul geardheid maak dit vir my as vrou maklik om suksesvol met hulle te boer. Ek is trots om deel te wees van die Tuli familie. ■

SERVICE EXCELLENCE

At BKB we value the importance of trust. Trusting that the rains will return and that the land will produce for those who nurture it. Knowing that trust cannot be bought, but rather earned over time through our actions and our commitment to you, through the good times and bad. We take pride in the relationships we have built with generations of clients, each underpinned by integrity and bound through a look in the eye and the shake of a hand.

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Editor's picks

books that grabbed our attention



but his stiff legs would not support him. The mad was the heaviest, and he was too fat besides, and too weak, and too tired.
"Back on your feet, Piggy," someone growled as he went past, and Sam paid him no mind. I'll just be down in the snow and die, he thought. It wouldn't be so bad, dying here. He couldn't possibly be any colder, and after a little while he wouldn't be able to feel his lower back or the terrible pain in his shoulders, no more than he could feel his feet. I won't be the first to die, they can't say I was. Hundreds had died on the Fist, they had died all around him, and more had died after, he'd seen them. Shivering, Sam reached for a branch on the tree and eased himself down in the snow. It was cold and wet, but he could scarcely feel it through all his clothing. He stared upward at the pale white sky as snowflakes drifted down upon his stomach and his chest and his eyelids. The snow will cover me like a thick white blanket. It will be warm under the snow, and if they speak of me they'll have to say I died a man of the Night's Watch. I did, I did. I did my duty. No one can say I forswore myself, I'm here and I'm weak and I'm craven, but I did my duty.

The ravens had been his responsibility. That was why they had brought him along. He hadn't wanted to go, he'd told them so, he'd told them all what a big coward he was. But Maester Aemon was very old and blind besides, so they had to send Sam to tend to the ravens. The Lord Commander had given him his orders when they made their camp on the Fist. "You're no fighter. We both know that. If it happens that we're attacked, don't go trying to charge. You'll just get in the way. You're to send one bird to the Lord Commander, and I'll send the other to the Lord Commander. You'll just get in the way. You're to send one bird to the Lord Commander, and I'll send the other to the Lord Commander."

When the horns blew, Sam had been sleeping. He thought he was dreaming about the girl. He was sorry to die too, but better than to die on the Fist, good men and true, not squeaking fat boys like him. At least he would not have the Old Bear hunting him through the trees. I got the birds off, I did that right, at least. He had written all the messages ahead of time, short messages and simple, telling them to attack on the Fist of the First Men, and then he had tucked them away safe in his parchment pouch, hoping he would never need to read them.

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NEW



Nearly three decades after the dawn of democracy, South Africa has remained a country of 'two agricultures'. On the one hand we have a subsistence, primarily non-commercial, black farming segment. On the other hand, however, we have a predominantly commercial and white farming sector that is well-resourced and has access to domestic and international trade networks.

These disparities can be traced back to South Africa's painful history where, for decades, black farmers were on the margins of government support and also experienced land dispossession and livestock plunder.

A Country of Two Agricultures focuses less on history and more on the present and the future, explaining why these disparities have persisted in the democratic era, and what it will take to overcome them. It aims to contribute to a better understanding of the variety of agricultural forces, taking into account both questions of domestic political economy and external factors, as well as to bring to light new risks and opportunities.

Wandile Sihlobo offers insights into the role of agriculture in the South African economy from an agricultural economy perspective, and provides political economy insights that are rooted in the experiences of farming communities on the ground and right through the value chain.

Beyond insights on the realities this book offers the government, the private sector, and anyone interested in the betterment of the South African economy, tools to grapple with this duality, and proposes a framework for bolstering the black farming segment for growth and competitiveness – and ultimately food security.

The book is available from exclusivebooks.co.za for R290.

GOLDEN OLDIE



Dr. Faffa Malan, Suid-Afrika se bekendste veearts maak met die opvolg boek die beesboere se taak makliker.

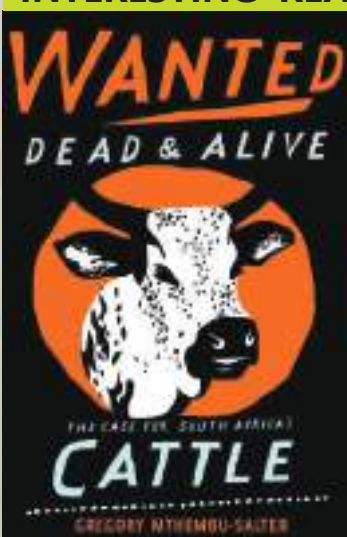
In agt hoofstukke beantwoord hy en ander kenners vroe oor alles van praktiese bulbestuur en veeproduksie tydens droogtes tpt parasietbestryding en die beste tyd om kalwerste bemark. Die agt hoofstukke handel oor bestuur, voeding, vleis- en groeibevorderaars, suiwel, teling, parasiete, siektes, en vergiftigings, geskryf deur Malan en 'n aantal mede-veeartse vir landbou.com na aanleiding van vroe wat beesboere op die gewilde aanlyn *Vra vir Faffa* gevra het.

Die boek fokus op die praktiese aspekte van beesboerdery, soos veilige hantering, hoe om hittestres by melkkoeie te voorkom en wenke vir oorwintering op mieliereste. Terselfdetyd bied die boek wetenskaplike inhoud aan met artikels oor parasiete en parasietbestryding en beskrywings van die belangrikste siektes wat by beeste voorkom: alles van ouplaassiekte tot listeriose.

Dié handleiding is gemaak om in jou bakkie se paneelkissie gebêre te word - altyd byderhand met raad.

Die boek kos R300 en is beskikbaar by winkel.landbou.com

INTERESTING READ



Given what we know about climate change, should we still be raising and eating cattle? And how do we weigh the cultural and economic value of cattle against their environmental impact? This engaging book brings history, science, economics and popular culture together in a timely discussion about whether current practices can be justified in a period of rapid climate change.

Journalist Gregory Mthembu-Salter first encountered South Africa's love of cattle during his own lobola negotiations. The book traces his personal journey through kraals, rangelands and feedlots across South Africa to find out more about the national hunger for cattle. He takes a broad sweep – drawing on such diverse sources as politicians involved in land reform, history, braai-side interviews with cattle farmers and abattoir owners, conversations with his mother-in-law, and analysis of cutting-edge science.

The book is available from exclusivebooks.co.za for R230.

OVK Lewendehawe

jou betroubare agent

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Auction results

GOUWSBERG		
	1 June 2023	
	Average price	Highest price
Registered bulls	R77 750	R130 000
Registered heifers	R28 153	R48 000
Registered heifers (pregnant)	R36 156	R60 000
Commercial cows	R24 571	R27 000



G20131

Pregnant heifer (G20131) holds the SA record price and was sold to Cornelis Rautenbach of Nonnie Tuli Stud.



DKH210018 was sold to Christo Rothmann of Bushmans Mountain Tuli Stud

GO WEST		
	20 October 2023	
	Average price	Highest price
Registered bulls	R47 750	R110 000
Registered cows (pregnant)	R17 750	R25 000
Registered cow & calf	R20 000	R20 000
Registered heifer (pregnant)	R19 600	R25 000
Registered heifer	R10 188	R11 250
Commercial cow (pregnant)	R18 000	R18 000
Commercial cow & calf	R18 273	R19 000
Commercial heifer (pregnant)	R18 278	R19 000
Commercial heifer	R10 288	R11 000

ALPHA & OMEGA					
24 May 2023					
Registered animals	Average price	Highest price	Commercial animals	Average price	Highest price
Registered bulls	R83 000	R255 000	Commercial bulls	R42 600	R75 000
Registered cows	R24 604	R38 000	Commercial cows	R19 428	R20 000
			Commercial heifers	R15 000	R15 000



AM 20212

AM 20212 was sold to MJ Ernst of Bona Bona



AM 1693

GLEN HEATH 13 September 2023		
	<i>Average price</i>	<i>Highest price</i>
Registered bulls	R45 273	R120 000
Registered cows	R20 714	R26 000
Registered heifers	R18 800	R23 000



GH210010 was sold to Margi Harvey of Shashi Tuli Stud



ADM21-28 sold to Margi Harvey of Shashi Tuli Stud

AVONDALE & TIPTREE 19 September 2023		
	<i>Average price</i>	<i>Highest price</i>
Registered bulls	R57 421	R90 000
Registered cows (pregnant)	R18 052	R24 500
Registered cow & calf	R20 950	R35 000
Registered heifer (pregnant)	R19 600	R25 000
Registered heifer	R10 188	R11 250
Commercial cow (pregnant)	R18 000	R18 000
Commercial cow & calf	R18 273	R19 000
Commercial heifer (pregnant)	R18 278	R19 000
Commercial heifer	R10 288	R11 000

CASMAN 31 August 2023		
	<i>Average price</i>	<i>Highest price</i>
Registered bulls	R47 750	R55 000
Registered cows (pregnant)	R18 523	R29 000
Registered heifers	R13 941	R17 000
Registered heifers (pregnant)	R18 834	R23 000
Commercial bulls	R35 000	R35 000
Commercial cows (pregnant)	R18 278	R21 000
Commercial heifers	R12 364	R14 000
Commercial heifers (pregnant)	R18 083	R21 000



CHK200034 sold to Herman Kriel of HJK Boerdery

SHASHI 1 August 2023		
	<i>Average price</i>	<i>Highest price</i>
Registered bulls	R43 800	R52 000
Registered cows (pregnant)	R16 280	R18 000
Registered cow & calf	R19 000	R21 000
Registered heifers (pregnant)	R16 900	R19 000
Registered heifers	R11 713	R13 800
Commercial cows (pregnant)	R15 500	R16 000

TULI NATIONAL OPEN 4 May 2023		
	<i>Average price</i>	<i>Highest price</i>
Registered heifers (pregnant)	R34 826	R47 000
Registered heifers	R34 000	R40 000



HBH		23 August 2023
	Average price	Highest price
Registered bulls	R49 706	R75 000
Registered cow & calf	R20 500	R25 000
Open heifers	R18 275	R28 000

Top heifer sold at auction.

NONNIE, LANGLYF & PROFYT 6 June 2023		
	Average price	Highest price
Registered bulls	R105 000	R240 000
Registered cows (pregnant)	R30 250	R65 000
Registered heifers	R25 437	R42 500
Commercial bulls	R80 000	-
Commercial cows (pregnant)	R21 700	-
Commercial heifers	R17 000	-



The highest priced registered Tuli bull from Profyt sold for an impressive R240 000 to Werner Gouws of Gouwsberg Tuli Stud.

NEXT GEN

LOADING...



KIMBERLEY
14 FEBRUARY 2025





Charné van Wyk (daughter of the late Stefan van Wyk) presents the floating trophy to Christo Rothmann.

Tuli Herd of the year

TWO IN A ROW

During the annual dinner of the Tuli Cattle Breeders' Society of SA that was held on 7 September 2023 in Bloemfontein, the Tuli Herd of the Year trophy was awarded to Bushman's Mountain Tuli Stud, for a second consecutive year.

This award is calculated according to SA Studbook Elite Herd competition criteria. A third of the points are awarded for data recording, a third towards fertility within the breed and days since last calf and the other third to the average cow values of the bulls and the female animals.

Christo was also one of the final six breeders in the final round of the ARC Herd of the Year 2023.

Well done Christo!

Award ceremony

Tuli herd with the most awards notified on Logix.

Winner HBH Tuli Stud - Ed Clark (Total: 12 - 9 x Goud, 1 x Silver, 2 x Brons)

Tuli herd with the highest percentage of bulls born, that participated in a farm growth test.

Winner Bushmans Mountain Tuli Stud - Christo Rothmann (92,31%)

Best cow value (herds with less than 100 female animals). Calculation will be based on all female animals in the herd, two years and older.

- 1st Amelia Tuli Stud** - Leslie Cook & Son (106,46)
- 2nd Zweibach Tuli Stud** - Dr Coenraad Slabber (106,29)
- 3rd Narina Tuli Stud** - Graeme Lucas-Bull (106)

Best cow value (herds with 100 and more female animals). Calculation will be based on all female animals in the herd, two years and older.

- 1st Glen Heath Tuli Stud** - Gordon Gilfillan (107,03)
- 2nd Nonnie Tuli Stud** - Cornelis Rautenbach (106,82)
- 3rd Langlyf Tuli Stud** - Albie Rautenbach (106,14)

Recognition awards

Charl van Rooyen - Technical Advisor from 2015 to 2023

Ben Raath - President 2023

Stephen Mains-Sheard - Vice President 2023

Christo Rothmann - Council member 2023

Ed Clark - Council member 2023

Jim Bredenkamp - Council member 2023

Dave Mullins - Council member 2023

Dave Marais - Promoted to senior inspector



Ed Clark with his son, Harry



Albie Rautenbach



FLTR: Ben Raath, Werner Gouws, Dave Mullins, Jim Bredenkamp, Charl van Rooyen, Christo Rothmann, Helena Marlherbe, Stephen Mains-Sheard, Ed Clark, Giel van Niekerk and Albie Rautenbach