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LRF-TS news

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In this issue

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Buying a better bull

By Izak Hofmeyr

Buying a bull is one of the riskiest decisions a commercial cattle operation can make, said Dr Mario Beffa, chief executive officer of the Livestock Registering Federation (LRF), during his presentation titled "Better bull buying" at last year's LRF Stockman School at Aldam.

"When we talk about cattle production," he pointed out, "stud cattle are the seed stock. All the different breeds and breed combinations give the cattle producer the ability to select the best breed or combination to suit his or her production environment. Hence, buying a bull is by no means a simple process. Many crucial details should be carefully considered. The first and fundamental question to answer is what exactly is it you want to achieve? What is your breeding goal?"

Genetics and adaptability

This is not an academic question. Typically, a producer wants to make as much profit as possible within his or her production environment. In a cow-calf operation, the bull will achieve two things: It will produce female calves that will become replacement cows, and male calves will go to the feedlot.

"Fertility as a profit driver is four times more important than any other trait you can select for. It is more important to look at a bull in terms of the cows he will produce, that will be adapted and productive in your environment," said Dr Beffa.

The cow herd represents around 67% of the livestock units in a cow-calf operation. Usually, these females are mainly reliant on the veld; hence, the cow herd must be adapted to the environment, considering the dry season and fluctuations in temperature.

In contrast, bulls typically make up some 4% of the herd but contribute 50% of the genetic material of the calf crop every year. "Over three generations, the bulls you buy will account for 88% of the genetic makeup of your cow herd. The long-term impact of your bull buying decision is immense. You will feel the impact, good or bad, of that bull in your herd for at least 15 years."

Over three generations, the bulls you buy will account for 88% of the genetic makeup of your cow herd.

Although adaptability is not easy to measure, Dr Beffa believes that size is a good guideline to use. "Large-framed animals are not adapted to stressful environments, so the key is to understand the optimum body size for maximum fertility and productivity. Bigger is not better."

Selecting better bulls

There is ample useful information available when selecting the right bull for your needs. The first of these is the sales catalogue, according to Dr Beffa. However, to make the best use of this you have to learn how to interpret this information.

"There's a wealth of information online – for example, Breedplan has a lot of information readily available. But the breeder is probably one of the most important sources of information. Phone him or her and ask about the bulls you are interested in. Find out to what extent their breeding goals match yours." The indices and estimated breeding values (EBVs) can also be consulted. These, said Dr Beffa, are the technical specifications. "When you buy a new vehicle, you look at the technical specifications such as engine capacity, ground clearance, fuel consumption, etc. The indices are an indication of how profitable an individual's progeny will be."

Next, he said, is to look at individual EBVs of importance in your herd, for example birthweight, cow size, milk and growth. "Be aware of genetic conditions that might creep into your herd. Double muscling is a good example. Understand the prevalence of these conditions and what measures are in place to keep them in check." Physical evaluation will always remain an essential part of bull selection.

"The technical specs allow you to narrow your search down to a few individuals. Now it is time to have a good look at the remaining candidates. The bull is essentially a genetic package, but that package needs to get the cows pregnant. He needs to be structurally sound and not break down within a year or so.

"Given the influence a bull will have on a cow herd, it is a no-brainer that time and effort should go into selecting the right bull," he concluded. Bull buying should be regarded as a long-term investment, not an expense. LRF

For enquiries, send an email to Dr Mario Beffa at mario@lrf.co.za.
Article courtesy of *Stockfarm January 2024*.

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Release of single-step BREEDPLAN analyses for the Brahman and Limousin breeds

Source: BREEDPLAN Beyond the Black Box

The BREEDPLAN team at the Agricultural Business Research Institute (ABRI) is pleased to announce the release of the multi-country single-step BREEDPLAN analyses for the Brahman societies in Namibia, South Africa and Zimbabwe as well as for the Limousin breed across the Southern Hemisphere, including the Australian, South African and Namibian societies. These breeders now have access to BREEDPLAN estimated breeding values (EBVs) that include genomic (DNA) information, following the release of their November 2023 Brahman BREEDPLAN analyses.

The introduction of single-step BREEDPLAN for these societies required a considerable amount of research, testing and validation to ensure the genotypes are used as correctly and accurately as possible.

Dr Brad Crook, BREEDPLAN manager: genetics research and development, explains: "Collaboration among the three Brahman societies has resulted in quite a well-structured reference population, where most genotyped animals are also well-recorded for traits of importance to the Brahman breed in Southern Africa.

This includes feed efficiency, fertility, and cow weight traits, all of which are becoming increasingly important in developing breeding programmes for sustainable beef production. Brahman breeders can tap into this reference population by genotyping their own cattle and gaining greater accuracy on these important traits at earlier ages."

What is single-step BREEDPLAN?

Single-step BREEDPLAN uses analytical software developed by AGBU, a joint venture of the New South Wales Department of Primary Industries and the University of New England, funded by Meat and Livestock Australia. The single-step BREEDPLAN evaluation utilises pedigree, performance, and genomic information simultaneously.

The evaluation takes account of each animal's actual genetic relationship with all other genotyped animals, including those in the reference population – the set of animals that have genotypes (SNP data) and phenotypes (performance records) for each particular trait.

SNP data is now being used along with pedigree and performance data to calculate BREEDPLAN EBVs and accuracy "in one step". This applies to all traits in a multi-trait model combining birth, growth, fertility, and carcase traits. As such, SNP data provides additional information in these calculations by accounting for the true genomic relationships among animals and how the SNP information relates to the performance records for each trait in the analysis. An important feature of the single-step BREEDPLAN approach is that complete use is made of the high density of genotypes recorded by breeders.

What are its advantages?

Genomics and the single-step BREEDPLAN model have several advantages. When young animals are genotyped at an early stage in life, they can achieve higher levels of EBV accuracy earlier – especially for traits expressed later in life – than is possible with a conventional (non-genomics) BREEDPLAN model. This equates to greater accuracy of selection decisions, at an earlier stage in the growth of animals, for Brahman and Limousin breeders across Southern Africa.

Furthermore, for breeders with small herds, accuracy levels are often limited by small contemporary group sizes even when pedigree and performance records are available. If calves are genotyped, however, they can accumulate additional information – and accuracy – via their relationship to the wider genotyped and performance recorded population.

Ultimately, the implementation of single-step BREEDPLAN for the Brahman and Limousin breeds across Southern Africa provides members with greater returns on their investment in the genotyping of seedstock cattle. LRF

LRF DIARY 2024

BREEDPLAN/HerdMASTER Course, Pretoria: **5-6 March**

Animal Breeding Diploma Course for Livestock Producers, Bloemfontein: **16-17 April**

Vryburg show: **10-11 April**

Bloem Show, Bloemfontein: **25 April-4 May**

Nampo – **14-17 May**

Royal Agricultural exhibition: **24-28 May**

LRF Members' Meeting, Centurion: **12 June**

SA Braford AGM, Parys: **14 June**

BREEDPLAN Course, Pretoria: **20 August**

BKB Africa Livestock Expo (ALE), Parys: **3-7 September**

Nampo Cape, Bredasdorp: **13-16 September**

Zimbabwe Beef School, Bulawayo: **17-19 September**

LRF Members' Meeting, Aldam: **8 October**

LRF Stockman School, Aldam: **9-11 October**

Lichtenburg Show: **15-20 October**

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Performance recording timeline

Source: BREEDPLAN Beyond the Black Box

The Performance Recording Timeline details the performance information that currently contributes to the calculation of BREEDPLAN estimated breeding values (EBVs) and outlines the stage of the production cycle during which each set of information should be recorded (*Table 1*).

Table 1: Performance information contributing to calculation of BREEDPLAN EBVs.

Joining | Birth | Weaning | Yearling | 18 months | Maturity

Joining	Birth	Weaning	Yearling	18 months	Maturity
Mating programme details	Date of birth	200 day weight	400 day weight	600 day weight	Cow disposal code (heifers and cows)
AI dates	Birthweight	Mature cow weight (on dams)	Scrotal circumference		Mature cow weight
Pregnancy test results	Calving difficulty score	Docility score	**Scanning measurements (EMA, fats, IMF%)**		
			Abattoir carcass data		
	Recipient dam details	Flight time	**Structural score information**		
			Bull soundness information		

The full set of EBVs are not currently available to all societies. It is, however, recommended that breeders aim to record the traits that are important to their or at least their client's breeding objective/s. The LRF has compiled a comprehensive *LRF Test Plan*. This is a detailed document on how and when to record all the required performance information that enables BREEDPLAN to calculate EBVs.

The ***LRF Test Plan*** is available from the **LRF website**. Click **here to view a short video** on recording data for BREEDPLAN.

Maxman Gomo wins LRF Michael J Bradfield bursary

The Livestock Registering Federation (LRF) is thrilled to announce Maxman Gomo as the inaugural recipient of the prestigious LRF Michael J Bradfield bursary for the 2024/25 academic year. This bursary, named in honour of the late Dr Michael Bradfield, is a testament to Maxman's outstanding achievements and dedication to the field of animal breeding and genetics.

A journey of excellence

Maxman's academic journey has been marked by excellence. Graduating cum laude with a BSc Agric (Animal Science) degree from the University of Fort Hare, he excelled in his studies, particularly in the field of animal breeding. His pursuit of knowledge continued as he embarked on an MSc Agric in Animal Breeding and Genetics at the University of Pretoria, where he has submitted his dissertation on *"Selection signatures associated with adaptation in South African Drakensberger, Tuli, and Nguni beef breeds".*

Not only is Maxman a stellar academic achiever, but he also demonstrates exceptional leadership and commitment in his field. His involvement as a teaching assistant, tutor, and coordinator for various projects during his undergraduate and postgraduate studies showcases his dedication to academic excellence and practical experience.

Maxman's passion for research and innovation is evident in his participation at the 2023 All Africa Conference in Botswana, where he won second prize for the best student oral presentation. Furthermore, his upcoming research proposal for a PhD, focussing on the whole-genome analysis of the Mashona cattle breed in collaboration with Purdue University in the United States, highlights his commitment to advancing knowledge and making meaningful contributions to the field of animal breeding and genetics.

Maxman Gomo, recipient of the LRF Michael J Bradfield bursary.

The LRF Michael J Bradfield bursary is a fitting recognition of Maxman's exceptional talent, hard work, and potential to shape the future of livestock breeding and genetics. We extend our warmest congratulations to him on this well-deserved achievement and wish him continued success in his academic and professional endeavours.

Body condition scoring: Unlocking reproductive success in smallholder beef cattle farming

By Marble Nkadimeng and Linky Makgahlela, ARC-Animal Production

Reproductive performance is the key to successful beef cattle farming. A successful farm needs at least 70% of the breeding cows producing a calf every year. However, smallholder farmers often face challenges in optimising breeding outcomes. One essential tool that can greatly improve reproductive performance in these herds is regularly monitoring the body condition score (BCS) of cows.

Body condition scoring is a hands-on, easy to learn, and cost-effective technique that requires minimal resources. This tool uses a common five-point scale to assess the level of fat carried by an animal ranging from 1 (severely undernourished) to 5 (excessively overweight) as shown in *Figure 1*. This is achieved by examining the amount of subcutaneous fat on the left side of the cow's loin area, ribs and tail head using hand palpation. The tool is free, allowing smallholder farmers to assess the nutritional status of cows without having to rob the bank.

Marble Nkadimeng (left) and Linky Makgahlela of the Agricultural Research Council-Animal Production in Irene.

Keep nutrition optimal

Nutrition plays a critical role in fertility. Inadequate nutrition decreases pregnancy rates, increases reproductive losses, and extends intercalving periods. Body condition scoring allows farmers to enhance herd nutrition and adjust feeding programmes to meet fertility needs by preventing both under- and overfeeding.

Our research evaluated cow reproductive performance of smallholder beef cattle herds from Limpopo, the Free State, Mpumalanga, North West and the Eastern Cape, and established current levels of reproductive performance in smallholder systems. Data collected included key indicators such as pregnancy rate, foetal and calf loss, days open and intercalving period. The herds that were studied recorded on average 50% pregnancy rate, 12% foetal and calf loss, and extended intercalving period and days open at 608 and 304 days respectively.

Fundamentally, non-pregnant cows, foetal and calf losses, extended intercalving period and days open were recorded in thin cows with a BCS of 2. Energy balance can be maintained, and reproductive performance can be supported at herd level with a BCS of 2,5 to 3. This means it is important to maintain a BCS within this range.

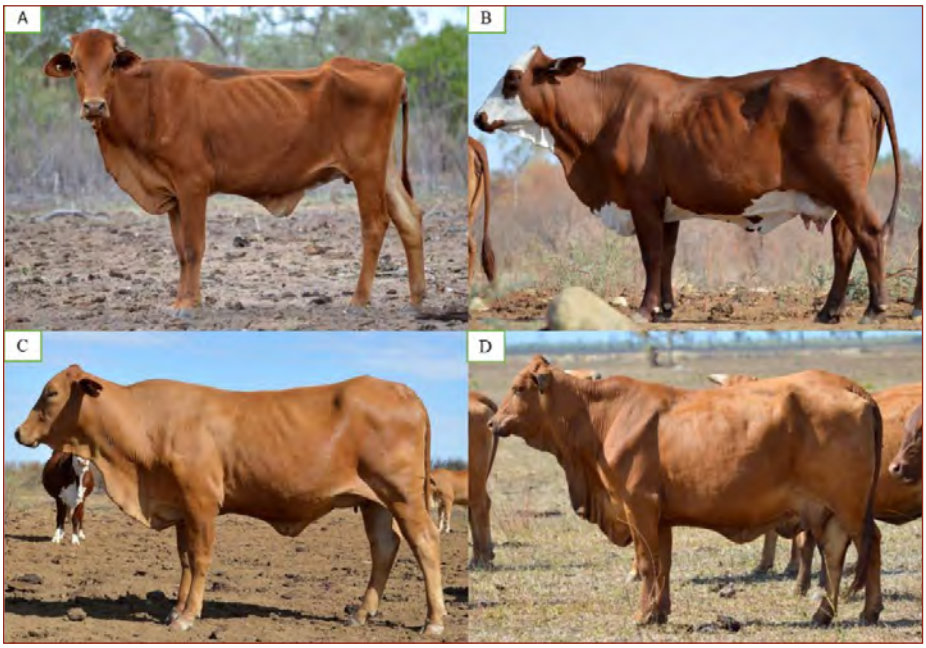
BCS monitoring

Regular monitoring of cows' BCS is important; however, there are specific periods when knowledge of BCS becomes even more crucial to the farmer's management decisions – for example, between 60 and 90 days before the breeding season (December to March). During this period, the BCS must be 3 to reduce the risk of delayed or failed pregnancies.

Secondly, a BCS of 2,5 to 3 is recommended during the calving season (October to January). This is necessary for both the cow's wellbeing and the health and fitness of her calf.

Finally, the weaning period represents yet another important time for monitoring BCS. A BCS of 2,5 during weaning (June to August) is crucial for the cow's quick return to

Figure 1: Body condition scoring according to the five-point scale.



Body condition scores: (A) 1 = poor, (B) 2 = thin, (C) 3 = moderate, and (D) 4 = fat. Cows in BCS 5 (not included in the images) are considered as grossly fat.

oestrus, and furthermore, to ensure an optimal repeated breeding cycle.

Monitoring BCS at various stages of a cow's reproductive cycle will guide smallholder farmers in making well-informed management decisions, i.e., whether it is necessary to maintain or supplement to improve animals' body condition.

The role of supplements

When BCS is below the recommended levels for beef cattle on natural pastures, supplementation is important for breeding animals to meet their nutritional demands, as the cow's nutritional requirement gradually rises throughout pregnancy and pre-calving periods. For example, our research showed that a drop in BCS from 3 during breeding to 2 in calving is coupled with a 27% increase in foetal/calf losses.

Furthermore, cows that maintain a BCS of 2 throughout the breeding and calving seasons recorded a 21% increase in foetal/calf losses, while cows that improve their BCS from 2 during breeding to 3 to 4 during calving, recorded only a 2,7 and 0,9% decrease in foetal and calf loss (*Figure 2*).

Feeding cattle with crop residues during dry periods has been found to be cost-effective supplementation in extensive production systems (Nazhat *et al*., 2021). This decreased intercalving periods from 507 to 486 days, days open from 217 to 118 days and calf mortality from 13 to 6% (Ratnawati *et al*., 2016; Budisatria *et al*., 2021).

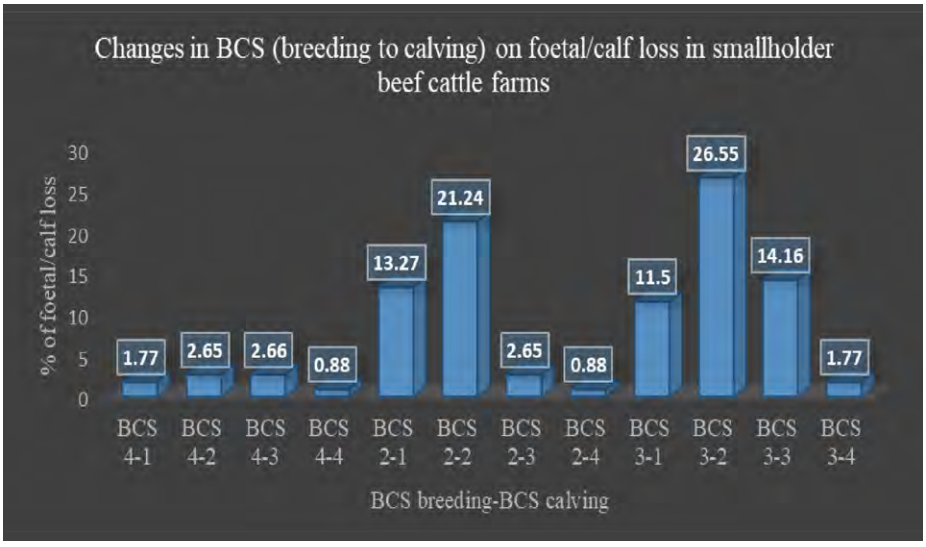
Mineral licks (for summer and winter) provide reasonable supplementation of essential minerals and nutrients deficient in feed and natural forages in smallholder systems. Winter licks are recommended during late autumn or early winter. Winter licks are formulated to improve dry forage consumption by supplementing nutrients such as phosphorus, magnesium, and additional energy sources to help maintain body condition.

Summer licks are provided in late spring or early summer. These licks provide essential minerals such as salt, potassium, and trace elements. These supplements help in maintaining hydration, preventing heat stress, and supporting overall health during the hotter months.

Overall, mineral licks help to address nutritional gaps in cattle diets and promote better herd health and reproductive performance.

To achieve desired reproductive performance, it is recommended that smallholder farmers conduct early detection for signs of nutritional deficiencies with minimal resources. Regular body condition scoring for cows is a must to maximise herd productivity without imposing a financial strain.

Figure 2: The effect of BCS changes from breeding to calving on foetal/calf losses on smallholder beef cattle farms.



For references or more information, send an email to Linky Makgahlela at MMakgahlela@arc.agric.za.

BREEDPLAN: A year in review

Source: BREEDPLAN Beyond the Black Box

Last year, BREEDPLAN achieved significant advancements, reinforcing its commitment to providing cutting-edge solutions for the global breeding community. The following key developments highlight the substantial progress made during this period:

Expansion of single-step BREEDPLAN analyses

Sixteen new single-step BREEDPLAN analyses were successfully implemented for both Australian and international clients, showcasing the system's versatility and global impact.

These analyses encompassed diverse organisations, including the Hereford Cattle Society (UK), the Namibian, South African and Zimbabwean Brahman Cattle Breeders' Societies, the Australian Limousin Breeders' Society, the Namibian and Southern African Limousin Cattle Breeders' Societies, and more.

Notably, a TransTasman single-step BREEDPLAN analysis was introduced for the Simmental Cattle Breeders' Society of New Zealand and Australian Simmental BREEDPLAN.

Diversification of BreedObject selection indexes

A total of 18 BreedObject selection indices were introduced for six breed societies, reflecting a comprehensive approach to genetic evaluations. Newly released selection indexes for Droughtmaster Australia and Speckle Park International marked their inaugural entries into this aspect of genetic analysis.

Revised selection indices were also released for the South Devon Herd Book Society (UK), the Simbra Cattle Breeders' Society of South Africa, the Murray Grey Beef Cattle Society (Australia) and the Red Angus Society of Australia.

Enhancements and innovations

Multiple improvements were made to enhance the accuracy and efficiency of BREEDPLAN analyses:

- An advanced algorithm for accuracy calculations in single-step BREEDPLAN analyses was introduced, reflecting a commitment to refining the precision of genetic evaluations.
- Genetic parameters were updated for specific societies, such as the Hereford Cattle Society (UK), ensuring the relevance and reliability of the data.
- BREEDPLAN version 6.2 underwent an upgrade, accompanied by the release of NFI EBVs for the Simbra Cattle Breeders' Society of South Africa, contributing to the system's continuous evolution.
- The introduction of four new Microsoft Excel templates provides a user-friendly means of submitting days to calving information to BREEDPLAN, streamlining data submission processes.
- Specific enhancements tailored to individual breed societies, such as the weighting on SNP genotypes, a revised single-step calving ease analysis, and an enhanced docility analysis for Angus Australia and the New Zealand Angus Association, showcased the adaptability of BREEDPLAN to diverse breeding programs.

Ongoing priorities for 2024

As the industry transitions into 2024, the implementation of single-step BREEDPLAN analyses and the continuous refinement of BreedObject selection indices remain central priorities for the BREEDPLAN team. This forward-looking approach underscores BREEDPLAN's commitment to staying at the forefront of genetic evaluation technology and ensuring its ongoing relevance and efficacy in the dynamic field of livestock breeding.

To recap

The year 2023 witnessed a series of major advancements for BREEDPLAN, spanning the global implementation of single-step BREEDPLAN analyses, the expansion of BreedObject selection indices, and various enhancements and innovations, positioning the system as a leader in genetic evaluation for livestock. The ongoing commitment to evolution and improvement sets the stage for continued success in the years to come. LRF

Checking your scales

Source: BREEDPLAN Beyond the Black Box

The collection of weights is critical for the calculation of BREEDPLAN weight EBVs. As scale accuracy can deteriorate over time, weigh scales should be regularly calibrated. Additionally, there can be variation between different sets of scales; this can be removed through the calibration process.

This is particularly important in situations where beef producers have multiple sets of scales, such as in different yards on their property(s). It is also common for different scales to be used for birthweight compared to post-birthweights, due to portability and weight range requirements.

Regular calibration is required to ensure that all sets of scales give the same reading.

Important considerations

The scale calibration process typically involves the test weighing of multiple known or 'standard' weights. The scales are then adjusted until they report the known weights of the standards.

Some important things to consider when calibrating your scales include:

1. **The use of multiple standard weights.** This is required as it is possible for scales to be accurate at a single weight point but inaccurate across a range. The use of multiple standard weights allows for scales to be tested with a single weight (light) or various combinations of multiple weights (heavier). Additionally, multiple smaller weights are easier to move on and off the scales compared to a single large weight.

2. **The use of inert standard weights.** Our own bodyweight changes over time, as does the weight of containers filled with liquid (e.g. through leaks, evaporation). For this reason, using inert standards such as tractor weights or buckets full of concrete is advised. To obtain a known weight for these inert standards, they should be weighed at a certified weigh scale like those found at your rural supply store for weighing seed and other produce.

3. **The use of the same standard weight across all scales.** This ensures that the calibration of all scales used on your property(s) is equal. However, when collecting a particular weight (e.g. 200-day weight), the whole management group/mob should be weighed using the one set of scales.

4. **The recalibration of scales when moved.** The process of transporting scales can affect their accuracy. Therefore, scales should be recalibrated if they have been transported between yards/properties etc. Birthweight scales are an exception to this; as they are designed to be portable, they do not need to be recalibrated every time they are moved.

5. **Regularly clean under scales.** Scales located in cattle yards are prone to the build-up of mud, hair and other detritus underneath. This can prevent the load bars from compressing and accurately measuring the animal's weight.

Calibration frequency

The frequency at which you should calibrate your scales will vary depending on how often you use them and the conditions they are operated under. Please refer to the manufacturer's recommendations for further detail. More information on recording weights for BREEDPLAN can be found **here**.

3 reasons why weighing your cattle is important

Here are three top reasons why weighing offers certainty for modern farmers:

1. **Forecast when your animals will be ready for sale**
   The more regularly you add weight data, the more accurately you can forecast the growth of your animals. By knowing when you have cattle finishing you are better able to plan your housing situation and the amount of forage you need to keep back for later.

2. **Identify your poor performers to maintain your margins**
   Every producer wants to invest in animals that will yield a positive return. By removing your bottom performing animals and leaving only the top performers you will be in a much stronger position. This reserves your precious forage and feed for the cattle that will convert it best into profits for you to recoup.

3. **Perfect your transitions for optimum growth**
   By regularly weighing, you can see patterns in your animals' growth. You'll start to notice when animals require new elements of nutrition. By analysing your animal growth you might also find that there are yearly patterns.

Adapted from: *breedr.co/news*

Key learnings from the 2023 AAABG Conference

Source: BREEDPLAN Beyond the Black Box

The 23rd Association for the Advancement of Animal Breeding and Genetics (AAABG) Conference was held in Perth in Western Australia from 26 to 28 July 2023. This international conference attracted approximately 200 individuals from around the world, including breeders, livestock scientists and other service providers, to discuss current research and the application of livestock genetics in animal breeding.

Papers on genetics presented

ABRI was well represented with Dr Brad Crook of BREEDPLAN and the ABRI Extension Services team in attendance. At the conference, Brad presented two studies that he has recently undertaken for ABRI's international clients. The first **study** investigated the genetic parameters for linear type traits with that of the National Association of Hungarian Charolais Cattle Breeders, while the second **study** investigated the genetic structure of Brahman cattle populations in Southern Africa.

Dr Boyd Gudex also presented a paper at AAABG, outlining recent breeding objectives and selection index development for eight Australian beef cattle breed societies.

Other key messages relevant to beef producers to come out of the 2023 AAABG Conference included:

Single-step BREEDPLAN analyses are delivering increased accuracy of EBVs. A research paper presented by Dr David Johnston from the Animal Genetics and Breeding Unit (AGBU) investigated the impacts of single-step BREEDPLAN for the Angus, Brahman, Hereford, Santa Gertrudis and Wagyu breeds. Increased EBV accuracies were observed across the full range of EBVs and breeds, compared to traditional BREEDPLAN analyses (no genomic information).

Industry funded research projects continue to contribute to BREEDPLAN. A number of research papers outlined results from industry-funded research projects, such as the Southern Multi-breed project, that are currently underway. Industry funded research projects continue to provide quality phenotypes to a number of BREEDPLAN analyses, and are also valuable resources for the development of single-step BREEDPLAN analyses.

Research into existing and new traits for BREEDPLAN continues. Many of the papers presented at AAABG outlined ongoing research in areas such as animal health and welfare (e.g. body condition score) and environmental efficiencies (e.g. feed intake, methane). There was much discussion on new phenotyping methods (e.g. collars) and trait development, which may have implications for BREEDPLAN in the future.

For more information on AAABG, visit the **AAABG website**. Full conference proceedings for the 2023 AAABG conference are also available, and can be downloaded **here.**

BREEDPLAN is proud to have been a bronze sponsor of the 2023 AAABG Conference

From left to right are Brad Crook of BREEDPLAN together with ABRI Extension Services team members Catriona Millen, Boyd Gudex and Paul Williams at the 2023 AAABG Conference in Perth.

Bull selection in the spotlight at the 2023 LRF Stockman School

By Christal-Lize Muller and Izak Hofmeyr

Last year's Livestock Registering Federation (LRF) Stockman School at Aldam in the Free State was the fifteenth of its kind. The theme "Profit drivers in bull selection" was approached from different angles during the programme.

The programme commenced with a look at the agricultural environment in its entirety, with Prof Theo Venter from the University of Johannesburg reviewing the future role of the livestock industry and discussing its contribution to South Africa's gross domestic product. He was followed by Mooketsa Ramasodi, director-general of agriculture, land reform and rural development, who emphasised traceability and animal health.

Prof Phillip Strydom from the ARC-Animal Production Institute and Stellenbosch University (SU) discussed the implementation of a meat grading system to increase the value of red meat. Prof Dietmar Holm from the Faculty of Veterinary Science at the University of Pretoria (UP) closed the school's opening session. He focussed on the reproductive health of bulls and stated that reproductive capabilities stand on three legs, namely health and biosecurity, genetic merit and freedom from any known genetic disorders, and physical capabilities to impregnate at least 30 cows in a limited breeding season.

Anri Strauss, ruminant specialist at Chemuniqué, stated in her contribution titled "Lifetime nutritional management of bulls" that breeders must first know where they want to go before they can get there. Breeding a profitable, efficient bull starts with the health of his mother when she conceives.

Next up was Jan van Zyl of Kroon Vee Brahmans near Vryburg, who explained his method for selecting bulls. He starts by studying the weaknesses in the breed and turning them into strengths in his herd. Studying pedigree performance, especially on the bull's maternal side, is crucial.

He was followed by Prof Leon Prozesky of Path Diagnostics Africa, who discussed suspicious deaths and disease outbreaks, and Prof Kennedy Dzama, vice-dean of the Faculty of Agrisciences at SU, who touched on the state of genomics in Southern Africa and its impact on bull selection.

Highlights of day two

The focus of day two was on the genetic aspects of bull selection. Two Australians discussed Breedplan's selection tools. Paul Williams, advisor at Australia's Agricultural Business Research Institute (ABRI), focussed on bull selection for genetic progress, while Dr Steve Miller, director of genetics and breeding at the Animal Genetics and Breeding Unit (AGBU), looked at Breedplan's so-called single-step genomic evaluation.

Selection for meat quality currently has no real economic value in South Africa, although a number of breeders have been selecting for these traits over the years. Jody Young, a master's student at the UP, addressed the complexity of this subject.

Another science that is gaining ground is the measurement of net feed intake. Lisa Rumsfeld of Vytelle explained the benefits of this concept. Feed efficiency can potentially lower a herd's feed consumption, which can have a significant effect on profit margins. She was followed by UP master's student, Megan Hilton, who investigated technological tools for precision farming in the feedlot.

Erin-Joy Graham, Molatek's factory manager in Malelane, with the Molatek/Veeplaas/ Breedplan Stud Breeder of the Year, Heinz Gruhn of the Otongovi Hereford stud in Namibia. (Photograph: Izak Hofmeyr)

Some of the five-star performers who were given recognition for completeness of performance. From the left are Bianca Lueesse of Lichtenstein Simmentalers, Johan Styger of BTB Simmentalers, and André van der Merwe of Wouman Brangus. (Photograph: Izak Hofmeyr)

Elandri de Bruyn, winner of the Michael J Bradfield Memorial Scholarship, with Paul Williams of the Agricultural Business Research Institute (ABRI) in Australia. (Photograph: Christal-Lize Muller)

The afternoon programme consisted of a series of breakout sessions – each focussed on an essential aspect of bull selection. An industry business meeting was also held, during which different challenges facing the red meat industry were discussed.

Improvement of carcass traits

The final day started with a presentation by Paul Williams on selecting for improved carcass traits. He was followed by Kobus Bester, breed director of the Simbra Cattle Breeders' Society, who discussed the wealth of information contained in an auction catalogue.

Prof Frikkie Neser from the University of the Free State talked about the value of performance-tested bulls, and the day was closed by well-known agricultural consultant, Dr Louis du Pisani, who looked at the value of quality veld management and soil health to maximise profitability.

Namibian stud breeder excels

Various awards were made at the gala dinner, the most important being the announcement of the Molatek/*Veeplaas*/Breedplan Stud Breeder of the Year. This year the award went to Heinz Gruhn of the Otongovi Hereford stud in Namibia. Heinz and his wife, Almut, have succeeded in developing their stud to the highest level over the past 27 years. Their stud has achieved a rating of 4,5 to 5 stars in the Breedplan evaluation system.

Leaders in the industry

Maria Tswayi from Hertzogville in the Free State received an Absa certificate of recognition for her many achievements as an up-and-coming livestock farmer.

The BKB recognition certificate for service to the industry went to Johan Styger, vice-president of the LRF and owner of the BTB Simmentaler stud near Hartbeesfontein in North West. Among others, Johan was honoured for his incorporation of easy-to-use equipment for the genetic improvement of beef cattle in Southern Africa.

Scholarship award

Elandri de Bruyn, former chief operating officer at the Wagyu Cattle Breeders' Society of South Africa, was the first recipient of the Michael J Bradfield Memorial Scholarship at the University of New England in Australia. This scholarship is funded by this university and ABRI, and offers an MSc or PhD student the opportunity to further their studies at AGBU.

The LRF will also offer a scholarship funded by the proceeds of the Stockman School that will assist a postgraduate student in animal breeding and genetics to further their studies at a South African university.

Completeness of performance

Unistel's Completeness of Performance Herd of the Year award for 4,5-star herds went to Riaan Theron of RAT Brahmans, Christopher Sparks of Mount Olive Brangus, John and Tracey Devonport of Devlan Limousins, Derick le Roux of Xourel Limousins, Arné Grobbelaar of Glen-Aggy Simbras, Diethelm Metzger of the Kamab Simbra stud, Llewellyn Angus of Wisp-Will Simmentalers and Simbras, Werner and Dagmar Wilckens of Ondeka Simbra, and René Krafft from Ibenstein Simmentaler.

The awards for five-star herds went to Riaan Theron of RAT Brahmans, Goedgenoeg Boerdery's Goedso Brangus stud, André van der Merwe's Wouman Brangus stud, Johan Styger of BTB Simmentalers, Bianca Lueesse of Lichtenstein Simmentalers, TJ Muller of Wilsim Simmentalers, Oggenstond Boerdery's Oggenstond Simmentaler stud, the Schneider family's Simmentaler stud, and Bertus and Dewald Walters of Walsim Simmentalers.

The Namibian 4,5-star herd winners were Alex de Koning of Rapa Brahmans, Bianca Lueesse of Bramarein Brahmans, Ebbi Fischer of Wokuma Brahmans, and the Schneider family's Okabra Brahman stud. Hagen and Birgit Eggert of the Harrobi Brahman stud won the five-star Namibian herd award.

The winners of the LRF's new special award for the completeness of herds that have had five-star recordings in the past five years were André van der Merwe from Wouman Brangus, Johan Styger from BTB Simmentalers, and Bianca Lueesse from Lichtenstein Simmentalers.

Proven bulls

Vytelle's Proven Bull of the Year award went to Charlotte Schuite of Heelbo Farm's Bradford bull, BB17169, Sydney and Mark Hunt of the Hunt Brahman stud's bull, HBSG1446, and the Brangus bull LR17615 belonging to several breeders.

Dennis Magagane of the La Reina Limousin stud's bull, XRL1638, Riaan van Zyl of AP van Zyl farm's Simbra bull, VBG1612C, Willem Botha of Tendele Farm's Simmentaler bull, LN1711, and Ernst Penzhorn of the Neposetem Trust's Wagyu bull, BB150128, were also awarded.

Best cow groups

The winners of the John Deere Cow Group of the Year were Ralf Rodewald of Rodewald farm (Braford), Jan van Zyl of Kroon Vee (Brahman), Tiaan Cobbold of the Cobbold Trust (Brangus), AJ du Toit from La Rhone Agri (Limousin), Arné Grobbelaar from AG Grobbelaar Boerdery (Simbra), Dr Peet du Toit from Econotech Farming (Simmentaler), and Johan de Vos from Stella Wagyu. LRF

For more information, visit *www.stockmanschool.co.za* or phone Charmaine Alberts on 082 922 3747. Article courtesy of *Stockfarm December 2023*.

Major upgrade for South African Simbra BREEDPLAN

Source: BREEDPLAN Beyond the Black Box

Several significant BREEDPLAN enhancements were implemented in the February 2023 South African Simbra BREEDPLAN analysis. These enhancements include:

Upgrade to BREEDPLAN version 6.2

The South African Simbra evaluation will now be using the latest version of the BREEDPLAN software, which includes a number of enhancements such as a greater range of traits that can be analysed, an improved method for handling different groups of 'base' animals, improved modelling of days-to-calving records for tropically adapted breeds, and the capacity to include genomic data via single-step methods in the future.

Updated adjustment factors and genetic parameters

An updated set of adjustment factors and genetic parameters have been estimated to reflect the volume of performance data available for the population. This includes more recently recorded traits such as days to calving and net feed intake (NFI). As a consequence, the parameters that were implemented in the February 2023 evaluation will better represent the population of animals with performance records.

Publication of NFI (post weaning) estimated breeding values

NFI-P estimated breeding values (EBVs) are estimates of genetic differences between animals in feed intake at a standard weight and rate of weight gain when animals are in a growing phase (e.g. animals placed in a feedlot post weaning). NFI-P EBVs are expressed as kilograms of feed intake per day (kg/day). Lower, or more negative, NFI-P EBVs are more favourable. More information on NFI-P EBVs can be found in the Help Centre on the BREEDPLAN **website**.

Three new selection indices

The new indices released are the:

- Self-replacing feedlot index (SRF).
- Self-replacing weaner index (SRW).
- Self-replacing grassfed index (SRG).

The three new selection indices were developed by the Simbra Cattle Breeders' Society of South Africa in conjunction with staff at the Agricultural Business Research Institute (ABRI) in Australia. Further information about the new selection indices for South African Simbra is available from the Help Centre on the BREEDPLAN **website.**

For more information, visit *www.breedplan.une.edu.au*.

Bulvoeding in die dekseisoen:
Ontsluit nuwe potensiaal met goeie beginsels

Deur Carin Venter

As ’n navorser by die Landbounavorsingsraad (LNR) se Instituut vir Diereproduksie, ondersoek dr Klaas-Jan Leeuw belangrike moontlikhede by herkouervoeding wat die prestasie en winsgewendheid van beeskuddes kan verhoog.

’n Bul kan tussen 25 en 35 koeie bevrug en daarom is dit moontlik dat slegs een bul se goeie of katastrofiese ‘insette’ die genetiese vordering van ’n koeikudde tot ’n groot mate kan beïnvloed.

Dr Leeuw verduidelik die stelling soos volg: “Gewoonlik verlaag bulle met lae libido en fertiliteitsprobleme nie net die speenpersentasie nie, maar ook die genetiese waarde van ’n kudde. Minder vrugbare bulle lewer minder kalwers en dit het ’n nadelige invloed op sy nageslag se prestasievermoë. Daarteenoor kan die regte bul se dogters lank in die kudde reproduseer en sal die manlike nageslag ook beter groei-eienskappe op die veld of in die voerkraal vertoon.”

Voer vir doeltreffendheid

Die groeipotensiaal van ’n toekomstige teelbul het ’n groot invloed op sy vermoë om ’n doeltreffende bul op die plaas te wees. “Nadat die bulkalf gespeen is, wil ons hom nie oorvoed nie; ’n oormaat energie en proteïen kan hom te vroeg oorvet maak, veral rondom die testes. Vroeë vetneerlegging kan permanente skade veroorsaak en die bulkalf se vermoë om ’n doeltreffende bul te wees, verminder. Beperkende voeding kan die aanvang van puberteit vertraag.”

Daar is verskillende opinies oor die hoeveelheid nutriënte wat ’n bul benodig vir optimale groei en gunstige funksionering in die kudde. ’n Bul wat ná speen byvoeding kry, groei vir ’n tydperk tot die ouderdom van sowat twee jaar, teen ongeveer 1 tot 1,5kg per dag. Dit is gewoonlik ook ’n bonus as jong bulle die helfte van hul volwasse gewig tussen ouderdom 14 en 15 maande bereik.

Nog ’n metode is om bulle met ’n rantsoen bestaande uit 14% ruproteïen (RP) tot op ouderdom 14 maande te voer, waarna die RP-inhoud verlaag kan word. Jong bulle kan ook by toetssentrums (Fase C) of op plase (Fase D) getoets word, waar diere vir ongeveer 107 dae spesifieke voer kry met die oog op rasverwante metings waaruit beraamde teelwaardes bepaal word.

Voeding vir spermontwikkeling

Produsente wat bulle vir hul kuddes aankoop, moet op hoogte wees van ’n bul se geskiedenis. Byvoorbeeld, was die koei ’n goeie moeder? Is sy pa ’n getoetste bul? Getoetste bulle bied die voordeel van ’n sertifikaat by aankoop.

Die kudde se genetiese vermoë en die produsent se beplanning rondom bepaalde genetiese vordering in sy kudde speel ook ’n rol. Dr Leeuw sê dit is raadsaam om bulle drie maande voordat hulle by die koeie geplaas word, aan te koop. Dit neem twee maande vir die bulle om op die plaas aan te pas en nog ’n maand voor die dekseisoen om hulle weer in ’n groeiende toestand te kry.

Dieselfde geld ook vir bulle wat reeds op die plaas is. “Daar bestaan ’n sienswyse dat spermontwikkeling 60 dae neem en daarom moet prikkelvoeding vroeër begin, 90 dae voor die begin van die dekseisoen. Ek sou voorstel dat op 70 dae met ’n laevlak-prikkelvoeding begin word en dat dit op ongeveer 30 dae voor die aanvang van die dekseisoen verhoog word.”

Behou bulle se kondisie

Bulle op die plaas word gewoonlik op ’n onderhoudsvlak gevoer. Die beteken in die meeste gevalle dat hulle op die veld wei met ’n mineralelek in die somer en ’n produksielek met minerale, mikrominerale en vitamiene in die droë maande.

“Dit is belangrik om die bulle se kondisie gedurende die wintermaande dop te hou en, waar moontlik, hulle reëlmatig te weeg,” sê hy. “Die bulle moet verkieslik nie kondisie of gewig verloor nie en indien dit wel gebeur, behoort ’n produsent vinnig byvoeding by te werk. Indien dit agterweë sou bly, kan dit die bul se libido negatief beïnvloed. Prikkelvoeding voor die dekseisoen sal ongelukkig nie kan opmaak vir die verlies aan gewig en kondisie nie.”

Prikkelvoeding kan vir tot ’n maand of ses weke in die dekseisoen gegee word. Bulle kry dus vir ongeveer twee maande prikkelvoeding en word vir tien maande op onderhoudsvlak gevoer as ’n Januarie/Februarie-dekseisoen gehandhaaf word. Waar ’n produsent ’n tweede dekseisoen implementeer, kan die prikkelvoeding oor ’n korter tydperk gegee word.

Vir meer inligting, kontak dr Klaas-Jan Leeuw by 012 672 9320 of kleeuw@arc.agric.za.
Artikel met vergunning van *Veeplaas September 2023*.

Namibian Brahman Breeders Society

Brahman

King of Crossbreeding

The Brahman has yet again proven itself, during the past years of drought, as **Namibia's best adapted breed.** This pure Bos Indicus breed's crossbreeding ability remains unmatched – when the Brahman is crossbred with any breed the result is **maximum heteroses.**

It therefore comes as no surprise that approximately **70% of Namibia's National Herd** consists of Brahman-infused cattle.

Every farmer will benefit from having a Brahman Bull in his herd, regardless of the chosen breed

The Namibian Brahman Breeders Society maintains the highest standards pertaining to accuracy of pedigrees, compulsory annual inspections and performance recording data – **Buy a registered bull from a member of the society for peace of mind.**

Important Dates:

15 OCTOBER 2024

National Brahman Auction & Symposium

Contact the Namibian Brahman Breeders Society at brahman@iway.na or 061 240 573 or visit our website: www.brahman.iway.na

facebook.com/namibianbrahman

The BREEDPLAN advantage: Celebrating 750 000+ genotypes

BREEDPLAN has, as of January 2024, reached a remarkable milestone with over 750 000 genotypes passing through its evaluations each month. This significant increase in genotypic data underscores BREEDPLAN's commitment to providing breeders with unparalleled insights and accuracy in genetic evaluation.

What it means for breeders

- **Enhanced accuracy and insights:** With a wealth of genotypic data available, breeders can expect even greater accuracy in estimated breeding values (EBVs) and deeper insights into the genetic merit of their livestock.
- **Expansion of single-step BREEDPLAN:** There are now 16 single-step BREEDPLAN analyses in production, including three single-step analyses for breeds in Southern Africa. These analyses cover a diverse range of breeds, societies, and regions, ensuring comprehensive genetic evaluation across the industry.
- **Continued advancements:** BREEDPLAN remains at the forefront of genetic evaluation services worldwide, with ongoing developments and releases scheduled for 2024. Breeders can anticipate further improvements and expansions in genetic analysis techniques and capabilities.
- **Access to information:** Breeders can stay informed about the latest single-step BREEDPLAN releases and developments through resources such as BREEDPLAN Edge, which provides comprehensive summaries of analyses and planned releases.

Drive for continuous improvement

As breeders, this milestone reinforces the value and reliability of BREEDPLAN in supporting breeding programmes and driving genetic improvement. With access to extensive genotypic data and cutting-edge analysis techniques, breeders can make informed decisions to advance their breeding objectives and ensure the long-term sustainability and profitability of their operations.

With BREEDPLAN's ongoing advancements and commitment to excellence, breeders can confidently navigate the evolving landscape of genetic evaluation and drive continuous improvement in livestock production. LRF

Namibian Stud Breeders Association updates

Namibia has faced several years of severe drought which, given the returning El Niño weather pattern and minimal rainfall across commercial farming areas, is set to continue into the foreseeable future. As stewards of the land and livestock, we must remain vigilant and adaptive in managing our resources during these adverse conditions.

Genotyping

In the past six months, the Namibian Brahman Breeders Society has seen an increase in genotyped animals, with 132 new additions. Furthermore, they are eagerly awaiting the results of another 67 samples currently being processed at Neogen. These genotypes feed into the South African Brahman's single-step BREEDPLAN evaluation. We look forward to seeing where this next step will take the Brahman in Southern Africa.

Selection indices

The Southern African Brahman societies are also in the proses of updating their selection indices. We are eagerly awaiting the release of these new indices, which will be aligned to the current and future production systems in Southern Africa.

Ultrasound scanning

In terms of ultrasound scanning of animals, the Namibian Stud Breeders Association (NSBA) has gathered information from breeders interested in participating in scanning activities this year. We anticipate commencing scanning operations in March 2024, providing valuable insights into the carcass traits of our livestock.

As we navigate these ongoing endeavours and challenges, we remain committed to advancing the Namibian stud industry through scientific innovation, collaborative efforts, and responsible stewardship of our natural resources. Thank you to all members and stakeholders for your continued dedication and support. LRF

Contact the NSBA on +264 61 235 168 or email nsba@iway.na.

The myostatin gene and calving ease

Double muscling (DM) is a genetic condition affecting cattle, characterised by enlarged muscles, reduced fat, and skeletal weight. This condition stems from a mutation in the myostatin gene, a key regulator of muscle growth. Different mutations of this gene can produce the DM phenotype, with Belgian Blue and Piedmontese breeds showing the highest occurrence; it is also present in several other breeds.

Cons versus pros

Research indicates that DM cattle can yield more meat and premium cuts, but they also face reproductive challenges. Calving ease, in particular, is affected, with DM calves often requiring assistance during birth.

The relationship between double muscling and calving ease has been well documented, with a general consensus that the homozygous affected genotype – with two mutated myostatin alleles – is unfavourable for calving ease and birthweight compared to heterozygous and normal contemporaries.

Calving difficulty in double muscled cattle is related to a morphological imbalance between the dam and calf at the time of birth, where the calf width and weight is increased in homozygous affected calves, or a decrease in the pelvic area of the dam, or both depending on the mating.

Study findings suggest that DM carriers (one copy of the mutated allele) have comparable calving ease to normal cattle, but they exhibit superior production traits, including increased rib eye area and retail product yield.

Genomic testing

The use of genomic testing in beef production systems permits the identification of individuals with DM alleles, allowing mating schemes to be built to maximise production of heterozygous animals. This marker-assisted selection approach would produce calves with higher yielding carcasses, and no effect on calving ease. LRF

Source: ML Taylor, Agricultural Business Research Institute, Armidale, New South Wales
Read the full article **here**.

Performance recording during drought

Source: BREEDPLAN Beyond the Black Box

Drought poses significant challenges to beef producers across Southern Africa, testing their resilience against operational, financial, and emotional strains. While managing a beef enterprise during drought, performance recording might not be a top priority. However, stud cattle managers must recognise the long-term impacts of drought and subsequent management practices on herd genetics and performance recording requirements.

Genetic improvement strategies

Genetic improvement is crucial for enhancing herd profitability in the medium to long term. Breeding decisions made during droughts directly affect herd genetics and profitability for the next decade. Thus, it is essential for stud breeders to persist with long-term genetic improvement strategies, including maintaining effective performance recording programmes, even during short-term challenges like drought.

Concerns may arise regarding poor performance data collected during drought conditions, with worries that lighter weights will lead to lower estimated breeding values (EBVs). However, BREEDPLAN analysis compares animals with equal performance opportunities. Despite lower average performance during droughts, variation within each group remains crucial for genetic evaluation. An animal's rank within its group remains consistent regardless of seasonal conditions, as genetics remain unchanged.

Prioritise performance recording

While poor animal performance does not hinder genetic evaluation, drought-related factors can compromise the effectiveness of performance recording. These include disruptions to routine operations and the poor condition of livestock, such as splitting existing management groups, early calf weaning, increased disease incidence, and dispersal of stud animals.

Effective management strategies can mitigate drought-related disruptions to performance recording programmes. These include rationalising recorded traits, maximising the number of animals within each contemporary group, careful submission of management group information, and consideration of specific recording considerations like scanning information and fertility performance.

Despite weight loss or sickness during drought, recording performance remains crucial for accurate genetic evaluation. However, in extreme cases with significant non-genetic influences, careful consideration **(continued on next page)**

The stud industry in Zimbabwe

The Zimbabwean stud industry is currently represented by 233 breeders across 14 beef breeds, one sheep and one dairy breed with a total of 25 694 registered animals. *Table 1* reflects the number of breeders per breed and the number of animals in each breed.

Under the *Registration of Pedigree Farm Livestock Act, 1981 (Act 21 of 1981)*, the industry is serviced by the Zimbabwe Herd Book using on-farm and bureau software supplied by the Agricultural Business Research Institute (ABRI) in Australia.

National Breed Sale

The two premier annual events of the stud industry in Zimbabwe are the National Breed Sale and the Beef School, modelled on the LRF Stockman School. The 55th National Breed Sale was held in July 2023 with a yarding of four Dorper rams, 61 beef bulls and 36 beef heifers.

Table 1: Number of breeders per breed and number of animals per breed.

Breed	Breeders	Animals	Breed	Breeders	Animals
Dorper	3	1 110	Limousin	1	19
Ayrshire	1	11	Mashona	5	674
Angus	4	59	Nkone	7	752
Beefmaster	11	1 133	Santa	1	65
Bonsmara	1	83	Simbra	4	437
Boran	75	7 601	Simmental	8	748
Brahman	90	9 080	Sussex	2	100
D/Master	2	365	Tuli	18	3 457

Table 2: Summary of the prices in United States dollars of the animals sold on the sale.

Breed	Number	Average	High
Dorper ram	3	1 933	2 250
Angus bull	1	4 000	4 000
Beefmaster	7	4 751	8 000
Boran	5	3 300	4 250
Brahman	35	5 250	14 000
Brahman heifers	25	1 932	3 100
Nkone	1	4 250	4 250
Simmentaler	1	4 750	4 750
Simbra	2	3 000	3 000
Simbra heifers	2	1 300	1 300
Tuli	2	2 750	3 000

The chairperson of the Herd Book, John Crawford, opened the sale with a moment of silence to commemorate one of the livestock industry's most dedicated servants, Dr Jacobus Jackson, who passed away earlier in the year, at the age of 91. Fondly known as Oom Japie, he conducted 17 consecutive annual inspections prior to the national sales, with the last one being in 2022.

A large crowd of 560 sellers, buyers and spectators attended the sale. The agricultural show was coloured with exhibitor banners and gazebos which contributed to the overall atmosphere.

Beef School

The Beef School was held once again in Bulawayo in September 2023. The event was fully subscribed, and many participants ranked it the best school to date. The Nkone Society showcased their breed with books, paintings, beautiful hides, and a live animal display. The wide range of presentations – from soil health and animal health in relation to soil health, to the calculation and use of estimated breeding values and financial and production performance analyses for beef enterprises – were well received.

This year, the event will be once again held in Bulawayo from 17 to 19 September where the Tuli Cattle Society will showcase their breed. LRF

Contact the Zimbabwe Herd Book on +263 242 756 600 / 242 772 915 / 242 777 391, or email trace@lit.co.zw.

Performance recording during drought (continued)

is needed regarding recording performance to avoid biasing EBVs.

The best approach to maintaining effective performance recording during drought varies across operations and situations. Producers who are unsure of the best strategy for their circumstances should seek advice from their respective society staff or the LRF office.

In conclusion

While drought poses immense challenges to beef production, maintaining performance recording is vital for long-term genetic improvement and herd profitability. Despite short-term setbacks, stud breeders must persist with genetic strategies and effective management practices to navigate through droughts successfully. LRF

For more information, have a look at the BREEDPLAN **Tip Sheet**.

Rooivleis op die randjie van groot uitbreiding

Deur Koos du Pisanie

Veeprodusente het die afgelope jaar of twee behoorlik die wind van voor gekry. Tussen droogtes, siektes en Covid-19 het bedryfskoste ook nog maand na maand gestyg. Dit laat 'n mens wonder waar staan die rooivleisbedryf werklik. Is dit 'n bedryf wat besig is om te versmoor of is daar hoop? En kan die bedryf sy markaandeel vergroot?

Prof André Jooste is verbonde aan die Departement Landbou-ekonomie aan die Universiteit Stellenbosch en hy het met *Veeplaas* gesels oor rooivleis se plek en rol in die algehele landbousektor.

Vleis versus ander sektore

Volgens sy berekeninge lewer die veebedryf die grootste bydrae tot die bruto produksiewaarde van landbouproduksie (BPL). "Die totale reële BPL was in die 2021/22-boekjaar R380 miljard teenoor R183 miljard in die 2001/02-boekjaar. Dit verteenwoordig 'n saamgestelde jaarlikse groeikoers (SJG) van 3,73%."

Hy verduidelik dat die SJG oor hierdie 20-jaar tydperk tussen 2001/02 tot 2021/22 vir kontantgewasse, tuinbougewasse en veeproduksie onderskeidelik 2,54, 4,51 en 4,43% was. "Dit is dus duidelik dat daar in reële monetêre terme groei in al die bedrywe was." Vee het die grootste aandeel in die BPL (*Figuur 1*).

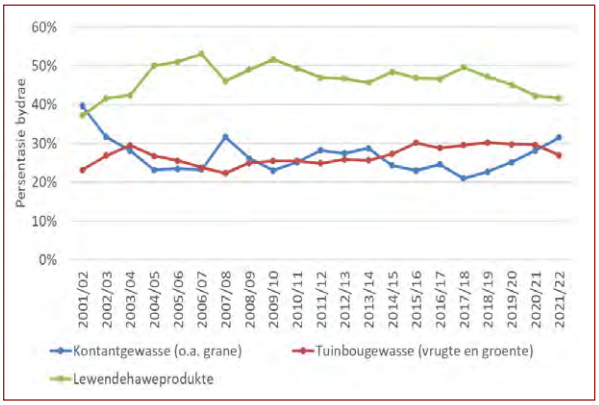
"In 2021/22 was die persentasie bydrae van kontant-, tuinbougewasse en vee onderskeidelik 31, 27 en 42%. Vir die tydperk 2001/02 tot 2021/22 was die onderskeie aandele 26,6, 26,8 en 46,6%. Die aandeel van veeproduksie tot BPL bly dus konstant hoër as die ander sektore s'n," verduidelik hy.

Prof Jooste het verder gaan kyk na rooivleis se plek in die mark teenoor ander diereprodukte. Hy sê dit is duidelik dat die hoenderbedryf die grootste bydrae lewer tot die bruto produksiewaarde van verskillende veeprodukte, gevolg deur die bees- en kalfbedryf, met melk en die eierbedryf kort op hul hakke.

Hoewel hoender die grootste aandeel in die BPL van verskillende veeprodukte het, is dit duidelik dat dié aandeel oor tyd ietwat afgeneem het. Die aandeel in die 2021/22-boekjaar was 32%. Aan die ander kant het rooivleis se aandeel weer goed gegroei.

"Die aandeel van beeste en kalwers, skape en bokke, en vark was onderskeidelik 28, 5 en 6%. Gesamentlik was hierdie bedrywe se aandeel hoër as dié van die hoenderbedryf in die 2021/22 boekjaar."

Figuur 1: Persentasie bydrae tot bruto produksiewaarde van landbouproduksie. (Bron: Gebaseer op data van die Departement van Landbou, Grondhervorming en Landelike Ontwikkeling)



Groei in die bedryf

Daar is altyd plek vir ontwikkeling en groei in die rooivleisbedryf. Die kanse dat rooivleis sy markaandeel kan vergroot is ook nie uitgesluit nie. Die verskillende vleissoorte is bronne van proteïen vir die verbruiker en is altyd in kompetisie met mekaar. Vleis se bekostigbaarheid sal altyd 'n faktor bly wat die bedryf se mark-aandeel sal bepaal.

"Hoër inkomstegroepe is die grootste verbruikers van skaap- en beesvleis, terwyl varkvleis stadig maar seker ook 'n goeie markaandeel in hierdie inkomstegroep wen. Laer inkomstegroepe verbruik meer hoendervleis asook laerwaarde snitte uit die rooivleissektor," verduidelik hy.

Hy noem dat 'spesialiteitsprodukte' uit die verskillende rooivleisvertakkings 'n impak sal hê op hoe die rooivleisbedryf se aandeel kan groei.

"Sowat 15 of 20 jaar gelede was die mees gesogte snitte deur die hoër-inkomste groepe byna uitsluitlik uit die agterkwart gesny. Dit het verander en nou is die verdeling tussen agter- en voorkwartsnitte waarskynlik 50/50," meen hy.

Uitvoere is 'n goeie keuse

Hy glo daar is baie ruimte vir die rooivleisbedryf om sy markaandeel te vergroot; nie net in die plaaslike mark nie, maar ook in die uitvoermark.

"Dit is belangrik dat die rooivleisbedryf, en spesifiek die beesvleisbedryf, sterk fokus op die uitvoermark. Die meeste uitvoere geskied via voerkrale, maar die produsente speel steeds 'n belangrike rol; die regte tipe diere moet aan voerkrale gelewer word. Die voorkoms en beheer van bek-en-klouseer kan groei in uitvoermarkte belemmer. Dit moet vinnig uitgesorteer word," waarsku prof Jooste.

Daar is 'n blink toekoms wat vir die rooivleisbedryf lê en wag. Die geheim is dat almal in die waardeketting hande moet vat, mekaar moet ondersteun en saam moet werk om die markaandeel tot voordeel van al die rolspelers te vergroot.

Vir meer inligting, kontak prof André Jooste by 083 307 3703 of joostea@sun.ac.za.
Artikel met vergunning van *Veeplaas Oktober 2023*.

News from the LRF

From the Livestock Registering Federation (LRF) team we would like to wish you all the best for 2024. We are very excited about the year ahead. Herewith an update of key events over the past eight months and a quick insight into our plans for 2024.

Brahman and Limousin single-step BREEDPLAN analyses

Congratulations to the Brahman and Limousin breeders across Southern Africa who now have access to BREEDPLAN estimated breeding values (EBVs), which include genomic (DNA) information, following the release of their respective November 2023 BREEDPLAN analyses. The Brahman analysis combines data from Namibia, South Africa, and Zimbabwe, while the Limousin analysis combines data from Australia, Namibia, New Zealand, and South Africa. This significant enhancement uses a methodology known as 'single-step'.

LRF online courses

The LRF hosted several well-attended, monthly online courses in 2023. These short courses covered a wide range of topics, including the interpretation of EBVs and sale catalogues, importance of days to calving, interpreting the completeness of performance reports, value of real-time ultrasound scanning, impact of inbreeding and genetic conditions on your herd, as well as genomics.

We are busy planning the online courses for 2024 and have several exciting topics in mind. These include topics such as:

- Data quality: the key to informative EBVs.
- My breed has single-step EBVs: Now what?
- Unlocking the power of BREEDPLAN.
- Genetic conditions – the silent killer.
- Improved herd fertility – the key to increased profitability,
- Animal breeding – A global overview: where are we heading?

Keep an eye on our social media platforms for more information on our planned courses.

LRF Michael Bradfield bursary

The LRF is delighted to announce that Maxman Gomo is the inaugural recipient of the LRF Michael Bradfield bursary for 2024/25. Maxman has registered to pursue his doctorate in Animal Science at the University of Pretoria under the tutelage of Prof Carina Visser.

LRF Test Plan

Performance recording is the cornerstone of any genetic evaluation. We at the LRF are passionate about performance recording and would like to make it as easy and effortless as possible. With the start of the first phase of the BGP project, the LRF created an LRF Test Plan that aims to assist breeders with knowing when and how to record and submit performance information to their respective breed societies.

We regularly update the Test Plan to ensure it's up to date with the latest developments and traits available for recording. The latest version of the LRF Test Plan 24.01 can be accessed via the LRF website.

Staff

Jody Young, part-time technical assistant, left the LRF at the end of August 2023 to join the Simbra Cattle Breeders' Society, and two new staff members, Phillipine Sithole and Micah Forsythe, were recruited as technical assistants in September.

Phillipine graduated in 2019, earning her BSc degree in Animal Production from the University of Limpopo. She has now also earned her master's degree in Animal Breeding and Genetics from the University of Pretoria. Micah graduated in 2022, earning her BSc degree in Animal Science from the University of Pretoria and is now busy with her master's degree in Animal Breeding and Genetics at the same institution.

HerdMASTER

In December 2023 ABRI advised that they would continue to offer their HerdMASTER product, starting with an increased investment and plan for HerdMASTER 5 to be delivered in February/March, focussing on fixing the core issues of HerdMASTER 4, namely:

- A re-architected and updated central sync.
- Significant updates to underlying code and databases, allowing it to run on modern computers.
- Slightly refreshed user interface.

Thereafter they are looking at completely revamping HerdMASTER. We are very excited about this and look forward to your continued support of the HerdMASTER on farm recording software. For more information, contact Jeanine Labuschagne on +27 81 844 4853.

Please do not hesitate to contact the LRF office on +27 81 844 4853 or at email office@lrf.co.za for more information on training courses, the LRF Stockman School or any other animal breeding related queries.

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