

TULI IN TEXAS



Lukefahr Ranch (LR) is located in deep south Texas, a region where prolonged extreme to exceptional droughts, brutally hot and humid summers, and relentless external parasites are the norm.

“STAR” cattle fit into this adverse environment. STAR stands for S – Senepol, T – Tuli, and AR – Angus Red. STAR could also stand for South Texas Angus Red in terms of the infusion of many genes to a Red Angus foundation base from the Senepol and Tuli breeds for heat tolerance and drought adaptation to this harsh region. Angus is the most popular breed in the U.S. beef cattle industry, but red rather than black color is important with regards to heat tolerance. In south Texas less than 50% Red Angus is critical to maintain adaptability. Angus cattle are originally from Scotland. There cattle with black hair coats were at an advantage. In colder temperatures, black color absorbs solar radiation to help keep an animal warm – a phenomenon called thermal melanism. However, in south Texas and in much of the U.S., cattle need to stay cooler not hotter! Having either appropriate or inappropriate genetics can make or break your cattle business.

STAR Cattle are adaptable to this subtropical and drought-prone environment by maintaining good hormonal balance and body condition on grass, and being highly fertile by raising a good calf year after year, and doing so efficiently, in part, because of their moderate body size – to increase profit per acre. Because there never will be a perfect breed, STAR cattle have genes combined from Senepol, Tuli, and Red Angus, and with hybrid vigor to boot – a benefit of crossbreeding. The ultimate breeding objective for Lukefahr Ranch is as follows: *To maintain a breeding herd of polled, slick and light-colored STAR cattle of appropriate tropical genetics for the region where selection is applied to promote high fertility and survival in a low input system while working closely with Nature.*

A typical STAR cow weighs between 1,000 and 1,100 pounds. She has tremendous gut-fill capacity and high nutrient utilization ability that results in ideal body condition (without being fed hay or energy or protein supplements). In addition, the dominant slick hair gene further promotes adaptation to the harsh south Texas environment. Lukefahr Ranch sells bull calves for breeding from such cows. In one generation of mating a Star bull to large cows (1,500 pounds and heavier), a dramatic downsize to small and more efficient cows is possible. In addition, the same land area can be stocked with the more cows (three 1,000 pound cows rather than two 1,500 pound cows). In addition, smaller cows are more efficient. And you will have more total calves and productivity per acre! Bigger is NOT always better!



The following photos are of a yearling STAR bull and seven 1-1/2 old bred Star heifers. The photo of the bull was taken last summer, whereas the heifer photos were taken on December 18, 2017. Heifer LR 4-16 is hairy; the other heifers are all slick-coated. In winter, a slight hair coat is produced in slick Star cattle.

In economic terms, in recent years of exceptional drought, with appropriate genetics and sound pasture management practices, it was not necessary to feed hay, routinely provide energy or protein supplements or sell any good cows. Hay has not been fed for over 16 years. From 2014 through 2017, the feed cost per cow has been under \$5.00. In 2017 the total direct and overhead costs was \$333 per cow. Based on local market prices for good 5-weight

steers, profits per cow and per acre were \$428 and \$47. In addition, 51 pounds per acre was yielded based on total weights in weaned calves and total acreage. The USDA – Livestock Marketing Information Center projected for 2016 for the beef industry the total cash cost of \$851 per cow but an average calf returns of only \$86 per cow. Production costs will continue to increase for the industry and in the past few years beef prices have plummeted. One of the reasons for this marginal profitability problem is that cattle have been selected to be larger (being less efficient) and that management has focused on pampering such cattle. One key to profitability is to keep input costs down by avoiding unnecessary costs and to utilize appropriate genetics. Again, in 2017 the total direct and overhead costs

averaged only \$333 per cow. In addition, cow pregnancy rate was 96%. Despite brutally high temperature and humidity levels during the breeding season (mid-July through August), over 90% of the cows conceived in their first heat cycle. Cows at Lukefahr Ranch are not pampered; if they do not adapt they are culled. Years ago when the Star composite was first formed, the emphasis was on selecting and breeding moderate-sized cattle from adaptable and functional breeds (or lines thereof), including a large infusion of African genetics, and then crossing these breeds to make them all-the-more hardy – with hybrid vigor as a bonus to crossbreeding. In addition, the herd has not been treated for years for either external or internal parasites.

In addition, cow pregnancy rate was 96%. Despite brutally high temperature and humidity levels during the breeding season (mid-July through August), over 90% of the cows conceived in their first heat cycle.



More about genetics – The N'Dama (an African breed that has been long considered as the foundation of Senepol cattle) and Tuli are two breeds that evolved over 5,000 years in Africa. Despite drought, tropical climatic conditions, and real challenges associated with fly- and tick-borne diseases, these breeds developed major genetic adaptation and resistance. In addition, these African breeds were not fed dietary supplements such as grain. Too, only the most gentle or docile cattle were selected. However, recent molecular genetic studies have revealed that Senepol may actually have only a trace of N'Dama or African breed influence. Other ancestral lines of mostly European origin did evolve for as long as 500 years in the Caribbean tropical environment, which has

many of the same challenges (high heat and humidity levels and an abundance of ticks) as found in Africa. Interestingly, studies suggest too that the slick hair mutation is not of African origin but rather occurred in “Criollo” cattle populations in Latin America.

The slick gene's role in conferring heat tolerance to both beef and dairy cattle is well appreciated by traditional breeders in Latin America. However, the breeder must be careful when choosing the Senepol breed. A few decades ago when the breed was introduced to the U.S., some AI companies promoted the breed by selling semen from bulls that had the highest weaning weight EPDs that were not representative of the breed. Today some bulls or lines can produce very

large calves at birth. Also, some cows make too much milk and are too big at maturity which affects efficiency and body condition maintenance. As the adage goes: There is more variation within breeds than among breeds.

These three photos were taken in mid-January of 2017. These are 5-month bred cows who were wintering their 8 month-old calves. They had mostly been consuming forage that was stockpiled in the previous fall. No energy or protein supplements were offered, only free-choice minerals. Star cattle possess genes that enable them to thrive on low quality forage while maintaining good body condition by improving the processes of feed digestion or nutrient metabolism, or both. Even 2 year-old cows can winter their calves and be run with the rest of the herd after giving birth to their first calf.



Below is a photo of a STAR cow that weighs about 1,050 pounds with her Red Angus-sired heifer calf. The cow is homozygous dominant for the slick hair gene, which means that all her calves will be slick. Besides the advantage of heat tolerance, the slick coat makes it difficult for ticks to climb onto the animal. Instead, an animal with hairy ears with its head down grazing is an invitation for ticks to grab a hair and climb on board! Also notice the many vertical skin folds – particularly in the neck area. This feature helps to stretch the hide to dissipate body heat. These and many other evolutionary-based features (including many traits yet to be discovered) account for her adaptability and the ability to rebreed readily every year without pampering. Presently, calves are DNA tested to know which calves are heterozygous or homozygous dominant for the slick gene. Calves with the latter genotype are being selected so that they will later breed true for this critical trait.



This Senepol, Tuli, and Red Angus breeds are compatible in body type and conformation, which, along with potentially substantial hybrid vigor, translates into remarkably productive and efficient cows and calves that are also uniform. There are no purebreds on Lukefahr Ranch. Presently, cattle average approximately 33% influence for each of the three breeds. Between the Senepol and Tuli breeds there is significant African genetic influence in STAR cattle, which accounts for their high level of fertility and survival, early maturity and(or) genetic adaptability with minimal production inputs.



This custom-made, commercial three-breed composite yields adaptable, easy-care cattle. These cattle are of the *Bos taurus* type with no Brahman-influence (*Bos indicus*). Bull and heifer calves reach puberty early, even at 6 to 7 months, in part due to no *Bos indicus* influence and hybrid vigor. These uniquely bred cattle possess slick hair coats and numerous vertical skin folds, while depositing little fat along the tops of their backs (but more in the abdominal region), among other vital characters that collectively explain why they are often observed grazing in pastures during the heat of the afternoon in summer. Below is a photo of a heifer that calved at 17 months of age without assistance. Although the mating was not planned, because of her genetics for adaptation (a 5/8 blend of Senepol and Tuli with 3/8 Red Angus) the heifer developed well even while pregnant without receiving feed supplements. She also bred back one month later.

Body coat colors of STAR cattle range from white to red. Cattle with black body coats fare poorly in south Texas; fertility is subpar in the summer. Instead, this is the ideal time to breed if one wishes to work with Nature and maintain a low-input system. A recent trend at Lukefahr Ranch is the use of mostly light-colored STAR bulls to produce more light-colored (yellow and white) replacements. Soon most STAR cattle will be yellow or white and dun in order to confer additional heat tolerance.

This is because lighter colors reflect more ultraviolet radiation from the sun. **Some studies have reported that lighter colored cattle spend more time grazing and attract fewer flies.** At present, most STAR bulls and cows are heterozygous for the dominant slick coat gene. A DNA test is not necessary to know if a calf is yellow or white colored, although research is underway to map the dun gene(s). Below is a photo of a STAR cow that is slick and light colored (yellow and with one or two dun genes).

A recent trend at Lukefahr Ranch is the use of mostly light-colored STAR bulls to produce more light-colored (yellow and white) replacements.



In addition, cows are small to moderate in body size (weighing mostly between 1,000 to 1,100 pounds), produce just enough milk, and do not carry excessive flesh or bone. Cows thrive on mature, coarse forage during summer and winter seasons with limited or no energy or protein supplementation. At weaning, it is not uncommon for a cow to wean 60 even 70% of her own body weight in terms of the weight of the calf. While there is no selection for weaning weight, STAR calves grow rapidly and reach maturity early (puberty in heifers is observed as early as 6 to 7 months of age). Another reason is perhaps the high milk quality due to the genetics of the Senepol and(or) Tuli breeds. (It is common of many African breeds to produce less milk although it is of higher quality). Yet another reason is appreciable hybrid vigor for weaning weight due to wide crossbreeding. However, weaning weight averages have dropped some since 2008 due likely to years of severe droughts, in addition to response to continued selection for small-framed cows.

Below is a photo of LR Beth, a 13 year-old cow that is 50% Senepol and 50% Red Angus (some breeders would call this a Senangus). LR Beth has produced 12 calves to date and probably weighs about 1,050 pounds. Note her tight udder and small teats, her slick hair coat, and good body condition. Moreover, her appearance exemplifies that she is not extreme in any way. At the time the photo she was nursing a 6 month-old bull calf. LR Beth is also the dam of the Tuli-sired cow (LR Dusty) in the above photo.

With the emphasis on small, efficient and easy care cows that are adapted to the region, it is figured that three 1,000 pound cows can be run instead of the norm of two 1,500 cows in the same pasture area. Such large cows consume more grass and wean a lower percentage of their body weight in the weight of their calves, so we bank on both cow and pasture efficiency. Smaller cows are also easier to manage, cause less wear and tear on facilities, and more can fit in a trailer!



Wintering heifers: The first photo below is of an approximate 1,100 pound cow with her 9 month-old, Red Angus-sired calf (#45). Since 2013, calves have been wintered on their dams to minimize stress and avoid unnecessary costs of feed supplements, labor, etc., which is another reward of working with Nature. This practice also allows, for example, more time for heifers to adopt their dam's behaviors in selective grazing, gentle dispositions, respect for fences, coming to the manager's call to rotate pastures. In 2013 and in the first photo, heifer #45's 205 day-adjusted weaning

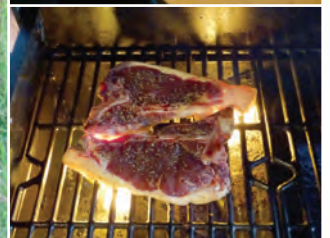
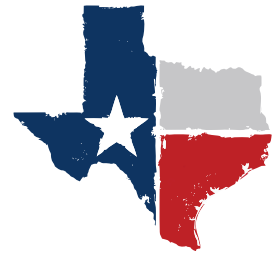
weight was 505 pounds. On 8 March 2014, heifers were weaned. There was no weaning stress. The cost per heifer over the winter was only \$3.26 – solely in vaccination costs. In previous years when heifers were weaned in fall, the cost was well over \$100 per heifer (mostly feed and not including labor costs). In addition, all cows that wintered their heifers successfully calved about two months later and were in good body condition – without providing any energy or protein supplements. Here is a link to an article that I wrote that further describes this practice of wintering calves: SGF-GCC.



Genetics for grass-fed beef: An added value of Star cattle is that calves are suitable for all natural, grass-finishing operations. For several years now, STAR stocker calves have been sold to grass-finishing businesses. STAR stockers fatten easily on grass. There is also adequate marbling and the tenderness of the meat has been impressive. A study conducted at the Texas A&M University beef cattle station at Ulvalde reported that Senepol X Angus and Tuli X Angus crossbred steers had numerically higher carcass dressing percent, marbling scores, and ribeye area than purebred Angus steers.

Each year those few young bulls that are not considered to be of breeding quality have been sold to grass feeders. Typically, my own beeves (bulls or steers) are harvested at 1-1/2 years of age, weighing about 1,000 pounds. In previous years, such calves grow rapidly and even marble on grass. The beef is tender and has wonderful flavor! This is possible because Star cattle also possess genes for getting fat on grass, which likewise explains why cows maintain excellent body condition on grass alone, even on stockpiled mature forage. So why feed grain? Below is a photo of a 1-1/2 year-old Star steer that was harvested at a live weight of approximately 1,000 pounds and photos of hamburger and a chuck roast. This steer never took a bite of grain in his lifetime. I disagree with experts who claim that it takes longer to finish grass-fed steers versus those in a feedlot. You simply need the right genetics for fattening ability on grass and early maturity besides proper management.

For several years now, STAR stocker calves have been sold to grass-finishing businesses. STAR stockers fatten easily on grass.



Lukefahr Ranch breeds adaptable cattle that can be sustained on forage stockpiled between severe droughts with no energy or protein feed supplementation and that will readily rebreed during the peak summer period and make a good profit on a per acre basis. A recent study from the University of Wyoming revealed that under drought conditions, smaller

cows (~1,000 lbs) are more efficient (weight of weaned calf divided by cow body weight) during drought conditions than larger cows (~1,400 lbs) are during favorable wet conditions! It is my belief that the development of appropriate cattle genetics will become even more critically important in the near future in the wake of global climate change. ■





PRECISION *STEEL* CRADOCK

MANUFACTURER OF:

- CREEPFEDDING GATES • FEEDING TROUGHS • TRAILERS
- TRUCK LOADBODIES & RAILINGS • FARM IMPLEMENTS AND EQUIPMENT
- BAKKIE RAILINGS • STEEL FURNITURE • BURGLAR PROOFING
- AND SAFETY GATES • STEEL STRUCTURES • GENERAL REPAIRS AND WELDING
- RUBBERISING – AGENT FOR RHINO LININGS

EUGENE GERBER - CNR VICTORIA & FRERE STREET, CRADOCK
TEL. : 048-8812725, CELL: 0826554470

VOORTREFLIKE DIENS

By BKB besef ons die belangrikheid van vertroue. 'n Vertroue dat die reën sal val en die grond 'n opbrengs sal lewer aan diegene wat dit bewerk. Ons weet vertroue kan nie gekoop word nie, maar word algaande verdien deur ons optrede en toewyding aan jou, in goeie en slegte tye. Ons is trots op die verhoudings wat ons oor geslagte met kliënte bou, almal gegrond op integriteit en gebind met 'n kyk in die oë en 'n stewige handdruk.

INTEGRITEIT

VOORTREFLIKE DIENS | ENTREPRENEURSKAP | VERDIENSTE | WERKNEMERS | OMGEWING

www.bkb.co.za



Die Betroubare Tuiste van Landbou



The importance of FEED CONVERSION EFFICIENCY

Philip Oosthuizen | Sernick Groep

The global food demand is drastically increasing due to the increasing population growth.

INCREASE PRODUCTION WITH LIMITED RESOURCES

The global food demand is drastically increasing due to the increasing population growth. The world population is currently 7.4 Billion while an increase of 35% is expected by 2050. An additional 1 billion people is already expected by 2025, where half of this will be from the Africa continent. Hence the production of food needs to be increased by approximately 35% by 2030. BFAP confirmed these statistics by forecasting a 22% increase in beef consumption by 2026.

The availability of resources which include grain and grazing are restricted and risky due to factors such as rain, climate, price and quality. The alternative use of grain for Ethanol production causes additional competition for grain utility. Hence the effective use of grain is essential. Producers must

strive to increase efficiency and produce more with the same resources. Through this overall profit will increase and the food demand for the growing population will be satisfied. The head of grain-marketing at Grain SA, Dr. Dirk Strydom, emphasized that applied production economic principles must be applied to ensure optimal profit which might not be maximum production or yield. The production economic law of diminishing marginal returns states that profit maximization is where the marginal

(additional) cost is equal to the marginal revenue and not necessarily at maximum production. Hence the focus on feed conversion efficiency and not only on growth in the feedlot industry.

ID AND SELECT FOR EFFICIENT ANIMALS

The most common performance measurement in a feedlot is average daily gain (ADG) which represent yield. But when we consider the production economic theory, as

Make sure you understand the concept and technology, then measure and finally implement to control the outcome - Mr Nick Serfontein

described, one cannot merely use ADG as performance to determine profitability. Animals which have a high ADG are not necessarily efficient feed converters. The focus should be on feed conversion ratio which indicated the efficiency that an animal converts feed into live mass. The main objective of Phase-C testing is to identify individual animals' genetic feed conversion

efficiency. The information is used to select breeding animals which deliver progenies with more efficient FCR.

THE ECONOMICS

An economic analysis was done to determine the effect of ADG and FCR on the profit margin. A 'What-if-analysis' was used to indicate the financial effect of different

scenario's. Figure 1 indicates the profit, valued on the Y-axis, for different ADG and FCR combinations. ADG is the column graph in different colors representing different ADG's and the FCR is on the X-axis. Variables which were held constant at relevant market prices include weaner price, feed price, feeding period, overhead cost, processing and medicine cost.

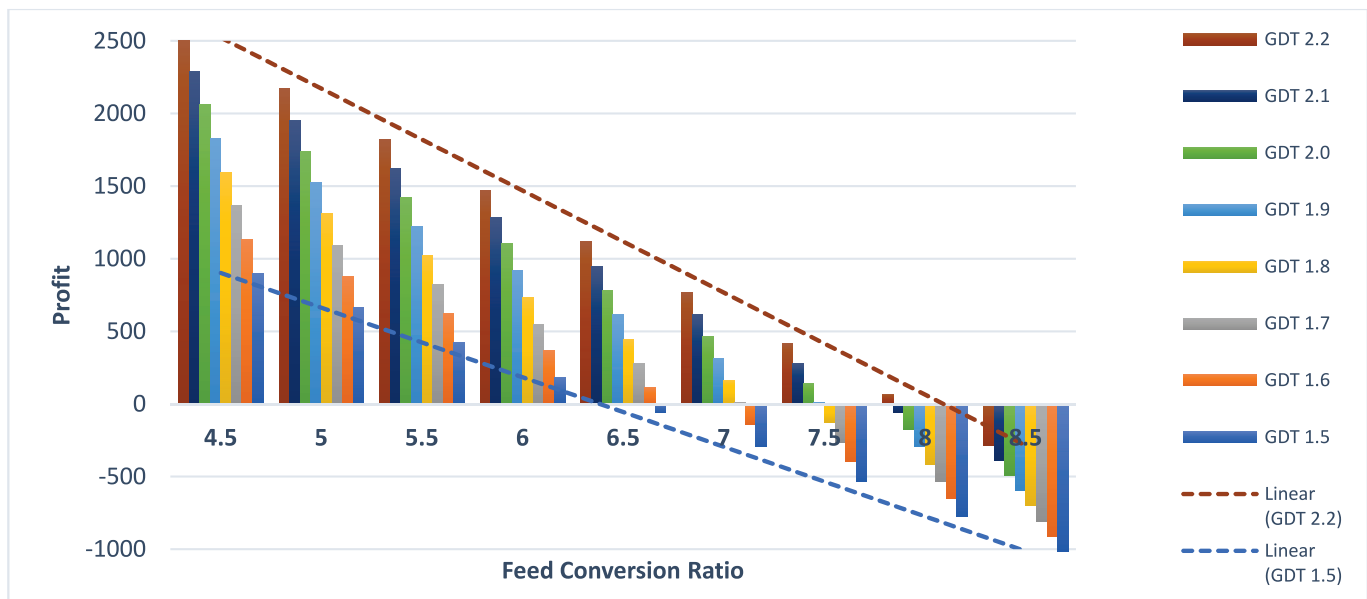


Figure 1: Feedlot profit for different ADG and FCR combinations

It is evident that the profit margin is affected by both ADG and FCR greatly. FCR however has a greater significant influence of the profit margin compared to ADG, determined by using a statistical T-test. Average benchmarks for South Africa commercial feedlots are 1.8 ADG and 6:1 FCR. This combination will realize a profit of R 735 per animal. The profit will turn into a loss when the FCR weakens by 1.3. The profit margin decreases on average (ADG; 1.5-2.2) with R 295.26 for every 0.5 increase in FCR. The negative effect of a weaker FCR on profit is more extreme with high ADG's which is indicated by the trendline on Figure 1.

CASE STUDY

Table 1: indicates the average additional profit for an improvement of 0.5 in FCR for different feedlot capacities.

Improve FCR with:		1	5000	15 000	30 000	90 000	130 000
0.5	R	295.26	R 1,476,300.00	R 4,428,900.00	R 8,857,800.00	R 26,573,400.00	R 38,383,800.00
1	R	590.52	R 2,952,600.00	R 8,857,800.00	R 17,715,600.00	R 53,146,800.00	R 76,767,600.00
1.5	R	885.78	R 4,428,900.00	R 13,286,700.00	R 26,573,400.00	R 79,720,200.00	R 115,151,400.00
2	R	1,181.04	R 5,905,200.00	R 17,715,600.00	R 35,431,200.00	R 106,293,600.00	R 153,535,200.00

The measurement of accurate feed intake is a challenge in feedlots due to feed being measured per pen where after the assumption is made that all cattle in that pen had an equal intake. The focus falls on Phase-C testing once again where the individual FCR is determined and genetically selected to improve a herd's FCR genetically. ■

Technological innovation can give you an advantage in the short term, but in the long term it can define your relevance in the industry – Mr Phillip Oosthuizen

RESEARCH RESULTS

Tropical Adapted Beef Cattle Breeds

COMPARISONS AMONG TULI-, BRAHMAN-, AND ANGUS-SIRED HEIFERS: INTAKE, DIGESTA KINETICS, AND GRAZING BEHAVIOUR.

Abstract

As part of an evaluation of Tuli crossbred cattle, forage intake, digesta kinetics and grazing behaviour were estimated in two Texas environments. In humid east Texas, Tuli x Brahman heifer were compared with purebred Angus and Brahman and Angus x Brahman heifers. Fecal output, forage intake, compartmental mass and compartmental residence time did not differ among breeds. Angus and Brahman heifers had different ($P < .02$) gastrointestinal residence times (51.1 ± 1.56 vs 43.1 ± 1.56 h, respectively), but values for the purebreds did not differ from those for Tuli x Brahman or Angus x Brahman heifers. Angus heifers had shorter ($P < .05$) 24-h grazing times (398 ± 15.4 min/d) and fewer ($P < .05$) grazing periods ($7 \pm .04$) than Tuli x Brahman (552 ± 16.8 min/d and $10 \pm .4$), Angus x Brahman (507 ± 18.4 min/d and $9 \pm .5$), and Brahman (560 ± 16.8 min/d and $9 \pm .4$, respectively) heifers.

In semiarid southwest Texas, Tuli x Angus heifers were compared with purebred Angus and Brahman and Brahman x Angus heifers. Fecal output and forage intake were similar in Tuli x Angus and Brahman x Angus heifers ($14.2 \pm .69$ and $14.9 \pm .91$ g fecal DM/[d.kg BW] and 24.5 ± 1.33 and 25.6 ± 1.75 g/d of forage DMI, respectively) but higher ($P < .05$) than those of purebred Brahman heifers ($12.2 \pm .64$ and 20.3 ± 1.23 g/[d.kg BW] of fecal DM and forage DMI, respectively). Grazing times did not

differ among breeds. We conclude that Tuli-sired heifers are likely to be as productive as Brahman crossbred heifers in Texas, based on the similarities in intake, digesta dynamics, and grazing behaviour.

PREWEANING GROWTH OF F1 TROPICALLY ADAPTED BEEF CATTLE BREEDS X ANGUS AND REPRODUCTIVE PERFORMANCE OF THEIR ANGUS DAMS IN ARID RANGELAND.

Abstract

The objective of this study was to determine the preweaning performance of F1 Brahman (*Bos indicus*)-, Senepol (*Bos taurus*)- and Tuli (Sanga)-Angus calves under semiarid south Texas conditions and to evaluate the reproductive performance of their Angus dams. Four hundred eighty-nine records collected over 4 yr were analysed. The statistical model for performance traits included the effects of breed of sire, year, sex, age of dam, and breed of sire x year. Year effects were important ($P < 0.05$) for performance traits but could be explained, at least partially, by differences between years in rainfall patterns. Brahman F1 calves were 13% less ($P < 0.05$) vigorous at birth, 4.7 kg heavier ($P < .05$) at birth, 13.5 kg heavier ($P < 0.05$) at weaning, 0.25 units lower ($P < 0.05$) in body condition score (BCS) at weaning, and 1.75 units greater ($P < 0.05$) in frame score (scores of 1 to 9) at weaning than Tuli and Senepol F1 calves. Senepol F1 calves were intermediate ($P < 0.05$) between the Brahman and Tuli F1 calves for birth and weaning weight but had 11% more ($P < .05$) vigor at birth

than the other two crossbreds. Tuli and Senepol F1 were similar ($P < 0.05$) in BCS and frame size at weaning. Males were 3.3 kg heavier ($P = 0.12$) at birth than females, especially for the F1 Brahman males that were 4.5 kg heavier ($P < 0.05$) than their counterparts. Brahman F1 weaned 19.9 kg heavier ($P < 0.05$) than the average of the other two F1 in the year of the greatest rainfall (1994), whereas the average advantage in other years was 11.4 kg. This difference gave rise to a breed of sire x year interaction (< 0.003). Brahman F1 were heavier at every measurement and appeared to be later-maturing and more able to excel under good forage conditions than the other two F1 breed types; Senepol and Tuli F1 were similar ($P < 0.05$) in these respects but appeared to be more competitive in relative growth rate to the Brahman F1 calves in years of greater nutritional stress. Angus females were observed to have a relatively low reproductive rate and high apparent fetal loss at the first (27.5%) and second (19.2%) compared with the third or later pregnancy (11.2%). Angus females that gave birth to Brahman F1 calves had 20.1% lower ($P < 0.05$) pregnancy rates in the succeeding year than those that had given birth to the other two breeds.



EVALUATION OF F1 CALVES SIRED BY BRAHMAN, BORAN, AND TULI BULLS FOR BIRTH, GROWTH, SIZE, AND CARCASS CHARACTERISTICS.

Abstract

Birth (n=308), weaning (n=291), feedlot and carcass (n=142), and yearling heifer traits (n=139) were evaluated in F1 calves sired by Brahman (BR), Boran (BO), and Tuli (TU) bulls and born to multiparous Hereford and Angus cows. Calves sired by BR were heaviest ($P<.05$) at birth and largest ($P<.05$) for cannon bone length. Tuli crosses were smaller ($P<.05$) for birth weight and cannon bone length than BR and BO crosses. No significant differences were observed for gestation length among sire breeds. Brahman crosses had larger ($P<.05$) weaning weight, hip height, and preweaning ADG than calves sired by BO and TU. Similar trends were observed for feedlot traits. Carcasses of BR crosses were heavier ($P<.05$) and had less ($P<.05$) internal fat than those of BO and TU crosses.

“No significant differences were observed for gestation length among sire breeds.”

Tuli crosses averaged greater ($P<.05$) skeletal maturity than BO crosses. Tuli crosses averaged greater marbling ($P<.05$) than BR crosses and less ($P<.05$) Warner-Bratzler shear force than BO crosses. No differences were observed in longissimus muscle area, fat thickness, or yield grade among sire breeds. Heifers sired by BR were heaviest ($P<.05$) and tallest ($P<.05$) at yearling measurement. Brahman F1 heifers had larger ($P<.05$) pelvic height and pelvic area, due to larger skeletal frame size, than BO and TU

REFERENCES:

- J. Anim Sci
- Forbes ID
- Rouquette FM JR.
- Holloway JW
- Warrington BG
- Forrest DW
- Randel RD
- Herring AD
- Sanders JO
- Knutson RE
- Lunt DK

F1 heifers. These results indicate large differences in growth and skeletal size exist among calves sired by these three breeds. Several important differences also exist for carcass quality traits, but not for carcass yield traits, among these three breeds. ■

Tuli information at the push of a button



www.tulicattle.co.za



Miller's *Pride*



Vervaardigers van/Producers of:

**Super Mieliemeel en Mabela
Super Maize Meal and Mabela**

en/and

Volvoere ● Feedlot feed
Fase-D ● Phase-D
Wildspille ● Game pellets
Hoenderkosprodukte ● Chickenfeed products



Mphilo Milling (Pty) Ltd • Klipdrift 90, Hammanskraal
079 206 7146 (Office) • 082 554 8136 (Sipho) • 082 554 8153 (Lionel)



LEDELYS MEMBERS LIST

Oos Kaap / Eastern Cape

NAAM	KONTAK PERSOON	SELNOMMER	EPOS	PREFIX	HDM
MNR. A.J. MARX	Alwyn	083-448 7870	essex@nokwi.co.za	Alpha Omega	AM
MNR. R.T. CLARK	Russeli / Edward	087-550 1533	ed@hbhtuli.co.za	HBH	HBH
DON HARVEY TRUST	Margie Harvey	082-569 2074	margih@redalert.co.za	Shashi	ST
DONKERHOEK BOERDERY TRUST	Colin Raath	082 320 2863	info@petbirds.co.za	Donkerhoek	DKH
WILDEBEEHSHOEK TULI	Raymond Brown	045-933 1731	bastervoetpad@gmail.com	Wildebeeshoek	WBH
MR C.G. HOBSON	Chris	084-092 9750	rooiberg@jabama.co.za	Bardee	D
MR A.C. KING	Alwyn	083-234 3248	kingconstruction@itsnet.co.za	Assegai Rivier	ACK
MR A.D. MULLINS	Dave	082-299 7953	mullins@isat.co.za	Avondale	ADM
PEZULU TULI STUD	Yvonne Du Randt	079-783 0941	kitching629@gmail.com	Pesulu	AJK
GLEN HEATH TULI STUD	Gordon Gilfillan	083-545 8653	gk.gilfillan@gmail.com	Glen Heath	GH
MR A.D. MCEWAN	David	082-379 0130	fairfield@hotmail.co.za	Fair	FF
MNR. A.J. VAN RIJSWIJK	Johan	083-410 7753	ajvanrijswijk@yahoo.com	Eira	AVR
ARTHUR SCHULZE ESTATES PTY LTD	Arthur Schulze	083-441 5781	conroyschulze@zamil.co.za	Burowill	ASE
MR S.T.R. MAINS-SHEARD	Stephen	082-323 4286	crosswayfarm@gmail.com	Tiptree	TT
TSAVO TULI STUD	Russell Kruger	082-558 9740	russ@muggandbeanel.co.za	Tsavo	TTS

Vrystaat / Free State

NAAM	KONTAK PERSOON	SELNOMMER	EPOS	PREFIX	HDM
MNR. B.J.M. ROSSOUW	Ben	083-454 2930	ben3ros@gmail.com	Bendri	BR
MNR A.J. KRIEL	Casper Kriel	072-681 0815	casmantuli@gmail.com	Casman	CHK
MNR. C.J. RAUTENBACH	Cornelis	082-371 4390	nonstoet@gmail.com	Nonnie	CR
MNR A.J. RAUTENBACH	Albie	082-959 5759	raueasy@telkomsa.net	Langlyf	R
MNR. A.J. RAUTENBACH	Abel	084-714 1462	abelrautenbach@gmail.com	Profyt	AR

Gauteng

NAAM	KONTAK PERSOON	SELNOMMER	EPOS	PREFIX	HDM
MPHIWE SIYALIMA TRADING CC	Gift Mafuleka	072-847 8402	mphiwe@siyalima.net	Mphiwe	M
GOUWSBERG TULI'S PTY LTD	Werner Gouws	082-853 4483	werner@gouwsbergtulis.co.za	Gouwsberg	G
DR. C.F. SLABBER	Coenraad	082-416 3853	cslabber64@gmail.com	Zweibach	Z
MR A. FANNER	Allan	083-415 2545	afanner@gmail.com	Blue Mountain	BM
BUSHMANS MOUNTAIN (PTY) LTD	Christo Rothman	082-572 9506	christo@sizanani.com	Bushmans	CHR
BAOBAB TULI STOET	Antonie Camacho	084-952 4953	baobab.tuli@gmail.com	Antonie Camacho	BT
MNR. C.H.J. BARNARD	Carl	082-561 5216	pinz@telkomsa.net	Rust-de-winter	C
LEKKERLAGSTOET	Hendrik Verword	083-258 5239	info@diamantvallei.co.za verwoerd@diamanvallei.co.za	Lekkerlag	HHH

“ The greatness of a community is most accurately measured by the compassionate actions of its members. ”
- Coretta Scott King -

Kwa-Zulu Natal

NAAM	KONTAK PERSOON	SELNOMMER	EPOS	PREFIX	HDM
P. & C. SMIT TRUST	Paul Smit	072-104 3422	paul@saplatimbers.co.za	Buffels Bosch	PC

Limpopo

NAAM	KONTAK PERSOON	SELNOMMER	EPOS	PREFIX	HDM
MNR. C.A. GROENEWALD	Coen	082-255 6173	merensiag@absamail.co.za	PULU	PT
BEAUFORT TULI STOET	Pieter Mostert	082-926 0608	mostert@telkomsa.net	LUVUVHU	LU

Mpumalanga

NAAM	KONTAK PERSOON	SELNOMMER	EPOS	PREFIX	HDM
MNR. P.S. GROBLER	Paul Grobler	082-572 0362	paul.grobler@pioneerfoods.co.za	Groblerstus	PG

Noord-Wes / North West

NAAM	KONTAK PERSOON	SELNOMMER	EPOS	PREFIX	HDM
MNR. F.J. BURGER	Frans	078-549 7240	michelle@kroonchickens.co.za	Eresa	CBF
MNR. J.V. HUMAN	G.J.J. Human	073-281 9108	jagdboerdery@gmail.com	Jagd	JHAH
ERNST JNR FAMILIE TRUST	Pieter Ernst	082-925 3662	ernstpf@gmail.com	Bona Bona TS	BBT
CARROLL TULI STUD	Herlu Rautenbach	083-266 7231	herlu.rautenbach@gmail.com	Caroll	CT
MEJ. S.A. ROOS	Stephané	083-306 6002	steph_roos@hotmail.com	Roos	ZSAR
ABELLA TULIS	Pietie/Lezel Labuschagne	072-564 6861	nwtowing@vryburg.co.za	Abella	LL

Noord-Kaap / Northern Cape

NAAM	KONTAK PERSOON	SELNOMMER	EPOS	PREFIX	HDM
DONKERHOEK BOERDERY TRUST	Ben	083-468 6176	braath@isat.co.za	Donkerhoek	DKH
MNR. M. VAN NIEKERK	Michiel	083-269 8443	giel@isat.co.za	Ganna	GA
			michiel@ganna.co.za		
COOK & SON	Kevin Or Leslie	076-617 6471	kevinc@vectotrader.co.za	Amelia	V
WOLHAARKOP TULI'S	Jim Bredenkamp	083- 679 733	jim@jimpos.co.za	Wolhaarkop	VAS

Wes-Kaap / Western Cape

NAAM	KONTAK PERSOON	SELNOMMER	EPOS	PREFIX	HDM
MNR. P.U. WILLEMSE	UYSIE	082-787 5831	uyswillemse@gmail.com	Trumps	UW
JENDA	NIEL ROSSOUW	082-789 5826	nielrossouwboerdery@gmail.com	Jenda	NR
MNR. J.H. CROUS	JAN	082-829 0296	hcrous@net4all.co.za	Niekerksberg	JHC

Zambia

NAAM	KONTAK PERSOON	SELNOMMER	EPOS	PREFIX	HDM
CHRIS ROGERS	Chris Rogers		tulisanga@gmail.com	Koce	KT
AYRSHIRE FARM TULI	W.J. Franklin		ambrosiaexp@gmail.com		
			ayrshirefarms@gmail.com	Aluyando Mungutu	AMS
KUSHIYA TULIS	Ian Robinson		huntpoloian@gmail.com	Kushiya	KF
NYREEN DOWNIE & TOM ROBERTS	Nyreen & Tom		chikupiestates@yahoo.com	Mopanie	MT

Zimbabwe

NAAM	KONTAK PERSOON	SELNOMMER	EPOS	PREFIX	HDM
NTUNTENI TULI STUD	Doug Follwell		neeks@zol.co.zw	Ntunteni	DJF

“

We must become bigger than we have been: more courageous, greater in spirit, larger in outlook. We must become members of a new race, overcoming petty prejudice, owing our ultimate allegiance not to nations but to our fellow men within the human community.

- Haile Selassie -

”

VEILINGS 2017



Uit die totale veilings wat in 2017 plaasgevind het, is die volgende drie uitslae ontvang. Ons deel dit graag.

◀ Die bul was die **duurste bul** op Eira Tuli Stoet se 3 de produksie veiling. Die bul AVR 11 50 is vir R84 000 verkoop aan Gouwsberg Tuli Stoet.

Duurste bul: DKH150263, R52 000, ▶
Verkoper: Donkerhoek Tuli stoet,
koper Wim van der Merwe, Britstown
Bul gem: R30 764
Koei en kalf gem: R15 000
Dragtige koei gem: R12 944
Duurste oop vers: R23 000, Verkoper:
HBH Tuli stoet, koper, Magma Holdings
Oop vers gem: R13 451



Uitmuntende kwaliteit was aan die orde van die dag gewees.

◀ **Duurste bul** op Langlyf en Nonnie Tuli-stoet veiling 2017.
CR 1131 – R65 000



AUCTION CALENDAR 2018

Northern Tuli Club	17 March
Tip Tree Tulis	12 April
Alpha & Omega	23 May
Langlyf & Nonnie Stud	5 June
Gouwsberg Tulis Aug	
KRM & HBH	22 August
Glen Heath Tulis	19 September
Eira Tulis	3 October
Go West Tulis	18 October

OTHER IMPORTANT EVENTS

Bull growth test competition: (Stud Book), Bloemfontein Show Grounds – 15:00 30 April

Nampo: 15 – 18 May

Royal Show: 25 May – 3 June

Junior Inspectors course and Inspectors Bosberaad: Bushman's Mountain near Gariep Dam 18 & 19 July

Cattle Forum, Bloemfontein: 1 August

Tuli Dinner & AGM: August

Alfa Show: 11 – 14 September

ALFA Agricultural Exhibition, Parys: 18 – 20 September

Tuli Council meeting: November

Langlyf

TULISTOET



Produksieveiling: 5 Junie 2018



Katalogus & fotos beskikbaar by www.raueasy.com

*Besoekeers altyd
Welkom!*



Albie Rautenbach

082 959 5759 | Reitz

raueasy@gmail.com

www.raueasy.com

PROEFT *Tuli Stoet*



**KOEI TOT KALF SPEENMASSA VERHOUDING IS DIE
BELANGRIJKSTE NA VRUGBAARHEID**



Produksieveiling: 5 Junie 2018



Kontak: Abel Rautenbach | 084 714 1462 | Reitz
www.raueasy.com

NONNIE *Tuli Stoet*



**Die tuiste van voortreflike, superieure & elite koeie.
Produksieveiling: 5 Junie 2018**



**TEEL REEDS
35 JAAR TULIS MET
STRENG SELEKSIE VANUIT
DIE ROOM VAN ZIM SE TOP TELERS.
GEM KUDDE TKP 380 DAE**

www.raueasy.com



Kontak: CJ Rautenbach | 082 371 4390 | nonstoet@gmail.com

PRODUKSI VEILING PRODUCTION SALE

WEDNESDAY
23 MAY 2018

11:00 ON THE FARM ESSEX,
BURGERSDORP

30
REGISTERED BULLS

30
REGISTERED
OPEN HEIFERS

20
COWS WITH CALVES



ALPHA & OMEGA

A Tuli will be one of your best investments ever!



Wayne
Southwood

ALWYN MARX: 083 448 7870
HARM MARX: 087 550 1411

www.alphaomegatulistud.co.za

