

Experiences of a cattle farmer in Zimbabwe

Presentation to the International Beef School event
held on **13 October 2021**

by **Doug Follwell**

NTUNTENI
Tuli Stud

*Single biggest
Tuli influenced
herd, bulling 2000
females to Tuli
bulls - season
2020/21.*

Fabwell Farming
Beef Breeding at the Best

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Norton Tuli Bulls



- All our bulls are semen tested annually prior to the breeding season.
 - **Dubane** only receives 'A' grade bulls amongst other selection criteria. Only two bulls failed breeding soundness exam from 30 tested.
 - **Maphaneni** which have a selection of bulls taken over and getting older, we have 12 bulls which have failed from 26 tested. Visually, one will not see this.
 - **Norton**, 2 bulls failed semen soundness. (7 were classed 'B' Grade bulls.)
- **Bulls' records.** ICP of both progeny parents. Days to Calving are now an added tool. There are lots of genomic values to look at too.
- **Bull power.** I have no problem on 1:70.
- **Bulls and a basic phase C test.** The difference within the same group of bulls even from the same sire is astonishing. 4.3 to 9:1 is the variance that I've experienced.



Genetic
hoof
problems to
be aware of





Bulling season

- **Rain pentad.** This greatly affects the time we start bulling and the financial impact of feeding.
 - **Norton**, we start the bulling 1st January.
 - **Matabeleland South** ranches 1st March.
- This allows the pentad to have had significant rain to establish the grass, the cattle to get over their early diarrhea from the protein flush and start to have positive daily weight gains above daily requirements to allow the females to start ovulating.
- By moving the bulling dates slightly later, we note that we defiantly have a bell graph with most calves coming in a 60-day window.
- Moving the Matabeleland dates also noted that the day temperature dropped enough to make the bulls more active. The nights have already started to cool noticeably.



Tuli Bulling Heifers

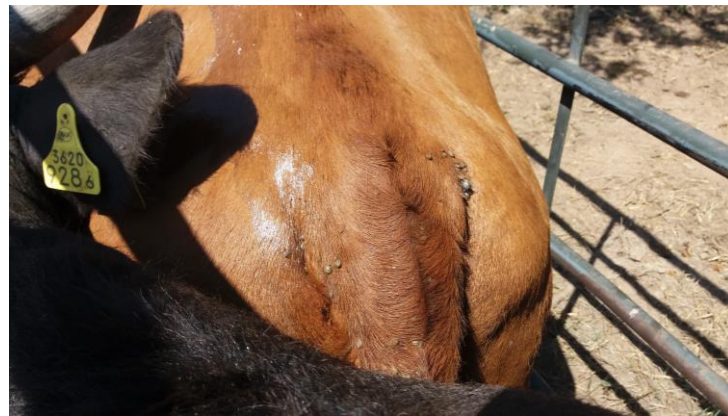
- **Heifers are palpated prior to bulling by the vet.** This determines those already ovulating and those needing assistance. Our heifers are fed accordingly to try flush naturally one month prior to the cow herds.
- We only keep our heifers conceived in 60 days by ultrasound scanning. Those conceived later are sold as pregnant 60-90 days and there are always a few empties. Science shows that this strict program of heifer selection will have a very positive long-term impact on the reproductive ability of one's herd.
- **2018/19** due to the drought and the females not ovulating we draft weaned at 90 days. Those heifers were bullied as two-year-olds and are now pregnant 2020/21 bulling season and calving as we hold Beef School.
- **2019/20** season we weaned at 60 days.



An udder with functional teats

- Calf ready for dehorning.
- Well positioned EID tag.

Cattle welfare



- Dipping weekly between October – May during the rains.
- Bi-weekly during the dry season.
- Intravenous as a standard operating procedure on anything that looks sick, together with Aspirin. Rope them as soon as possible to avoid heart stress walking them to a facility.
- All cattle are weighed monthly, if possible. To measure is to know!



Cattle Branding

- We have got our brands made a lot smaller.
- I believe that this allows a much smaller brand zone area and easier to brand the specified site without too much bone interference.
- We apply Exit immediately to each site; this can be audibly heard cooling down the site.



**Grazing as opposed to grass.
Do we understand the difference?**

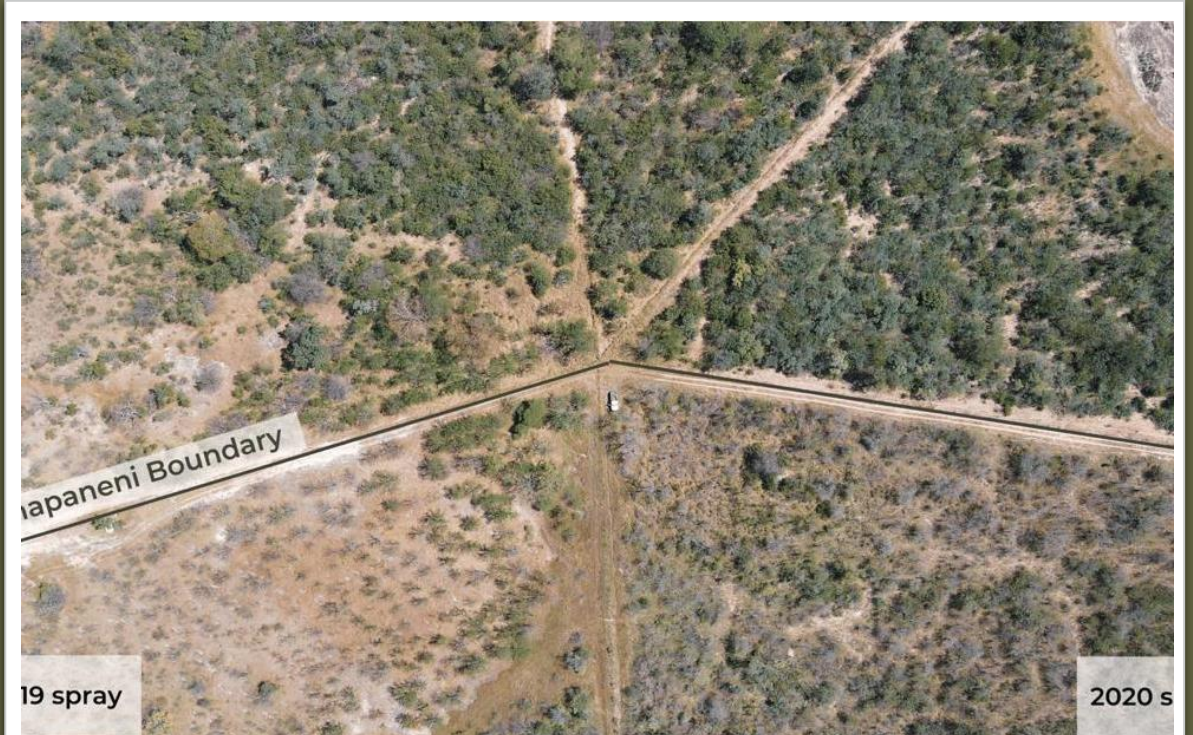
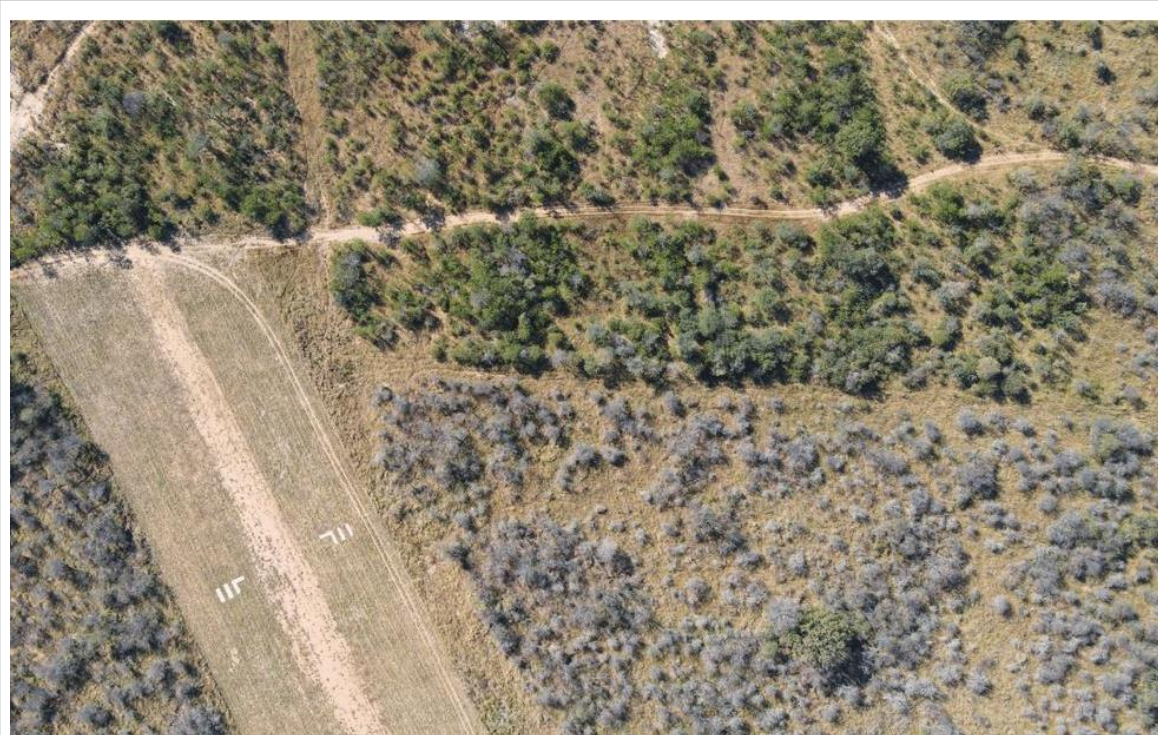
- Digestible fiber left in the dung sample. A rule of my own is no undigested matter longer than the length of my thumb nail. This being the case then we need to compensate with more rumen protein.
- Good competent herdsmen will tell you lots of things that you need to know to make decisions if need be. Sick bull may have low sperm count. Dominant cows at feeding trough space. Temperament issues. Cattle always wanting to break out of their paddock.
- We don't kraal any cattle. A good indication is that cattle should be lying down by water as late as 9 am. Anything after that indicates to me that they have not grazed enough during the night (disturbances by predators or there isn't enough grazing, etc.). Then depending on season, the matriarch herds, them out again mid to late afternoon.

Veldt Management

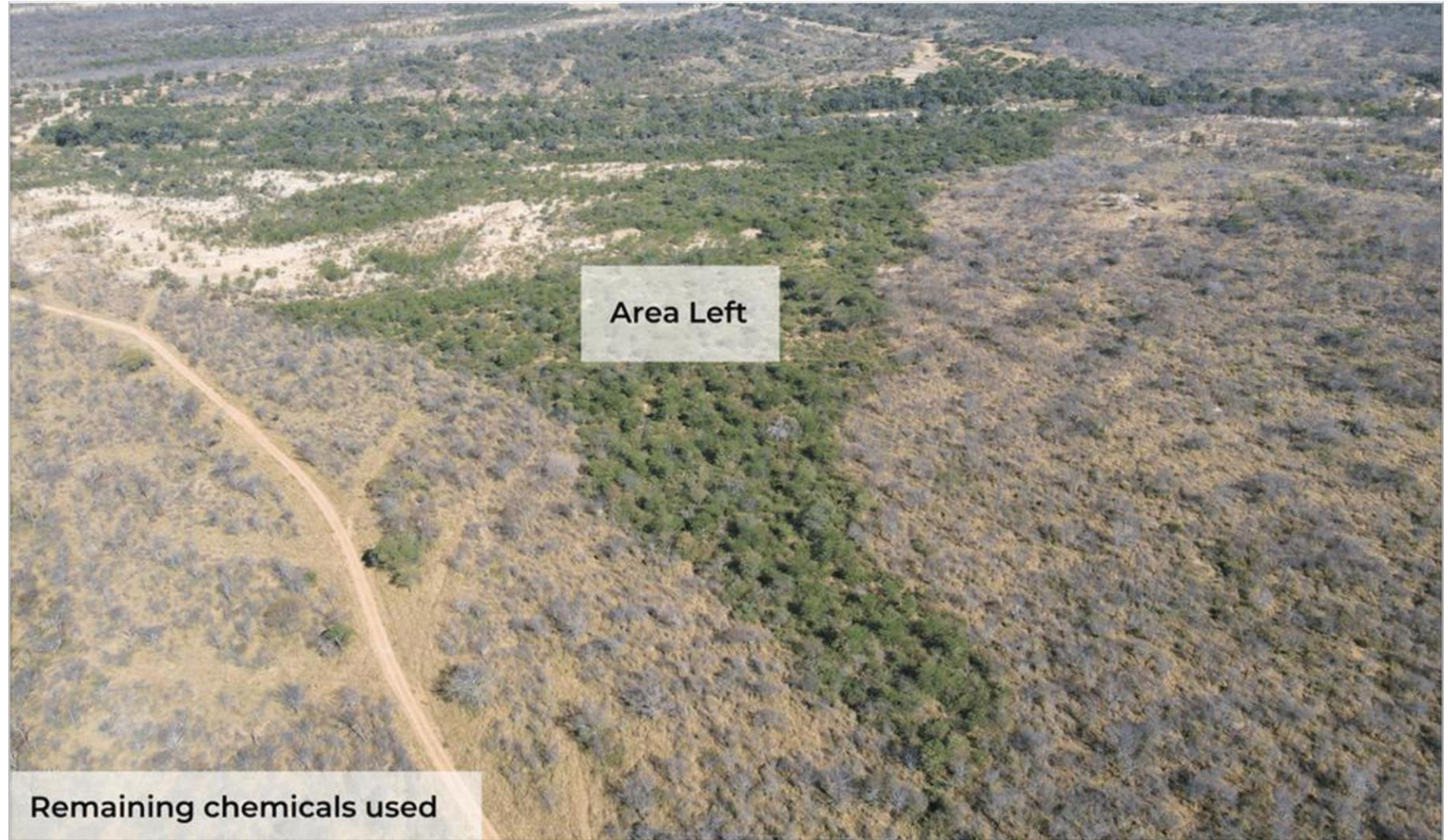
- **The weather satellite plays a critical role daily and weekly in our decisions.**
- Basically, once the rains have started a paddock size in hectares equals the number of cows it can hold at 1 LSU: 1 Ha.
- **Here's the tricky part.** The objective in my scenario is the grass should try maintaining a grazed height on my index finger. Too short when is the rain forecast? Too long and do we add more mouths? These cattle stay in the same paddock hopefully the entire summer. They graze everything none selectively. The indicator is how often and who is breaking out on a more regular basis.
- **Winter-** once the grass seed has dropped, we amalgamate herds into large groups and try eating a paddock clean at a time. This I believe helps incorporate the seed with hoof action and none selective grazing towards the end whereby the cattle are forced to eat everything.
- There are several modern generation herbicides on the market.
- **Bundu,** I find is very effective in the high rainfall areas for fence line spraying. This protects the droppers and acts as a small fire break.
- **Limpopo** is specifically arboreal-trees only. We have had tremendous success and the results are easily apparent within the first rainy season. We hand applied as opposed to an Ariel spray. It was effectively 10th cheaper and can be tree specific. We have noted that application rate is very important. Certain tree species are extremely sensitive to small doses. Yet *Dicrostacus Sineria* specifically is the opposite. It needs up to three times the application rate per tree size to get an effective kill rate.
- Those trees you want to preserve on your property one needs to leave a radius of a minimum 50 meters.
- **What was very interesting and concurred by other farmers I visited in SA & Namibia?** If you apply Limpopo to a portion of any paddock the cattle will almost spend their entire grazing time within that zone providing the grass regeneration is adequate.
- The level of bush encroachment on our properties in southern Matabeleland is so severe that we anticipate to almost trebling the carrying capacity. In economic sense it's going to be half as cheap to control the bush encroachment as opposed to starting another property with the associated startup costs of roads, fence clearing, capital infrastructure, water reticulation, etc.

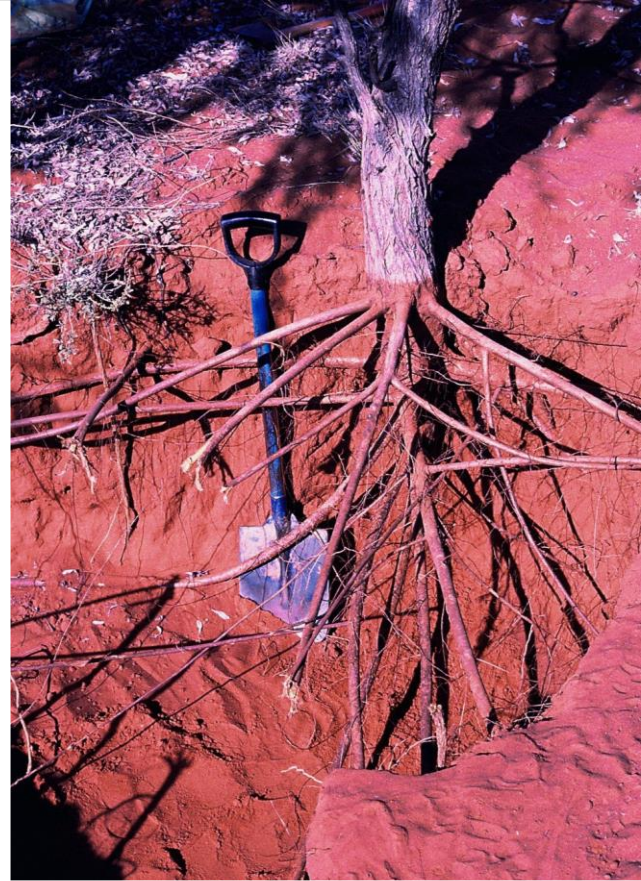
Maphaneni Ranch

Arial view showing contrast of chemically treated land vs untreated land



Arial view
showing
contrast of
chemically
treated land vs
untreated land





Black thorn roots (*Lars Nayler*)

Black thorn roots (*Lars Nayler*)

- Average was 19 tons of root mass per 1 ton of leaves, but the highest reported in Professor Nico Smith's thesis, was 29 (roots) : 1 (leaves) with 80% of roots in top 1m of soil – exactly where grass roots are found.
- Same applies to black thorn (used to be called *Acacia Meliffera* but now called *Senegalia Meliffera*).

Ability of common arid region woody & grass species to extract available moisture from soil

Species	Height (m)	Transpiration ℓ water / day	Transpiration (ℓ water)		Number of days to utilise 25,4 mm
			Woody: 1 000 plants/day	Grasses: 100 000 plants/day	
Black thorn <i>S meliffera</i>	2,5	64,8	64 800		4
(Silver cluster-leaf <i>Terminalia sericea</i>	2.8	16,6	16 600		15
Raisin bush <i>Grewia flava</i>	1,2	7,7	7 680		33
Wool grass <i>A pubescens</i>	0,19	0,344	34 400		7,5
<i>E lehmanniana</i>	0,21	0,075	7 500		34

In the drought, prior to chemical treatment





Results from chemical application



Terminalia Sericea (Mangwe)

Mopane woodland





Results of chemical application
in Mopane woodland



CSC Maphaneni Ranch, 2nd February 2020

- Video showing the effects of the drought on 500-hectare paddocks on Maphaneni Ranch.
- 11kms into paddock, no grazing visible.

Maphaneni Ranch, 26th April 2021



- Grass treated with chemicals at 4kg per hectare.
- Separation by fence line.



When the rains finally arrive!

- Veldt management is such a vast topic and there are so many different views. Over many seasons and so many differing locations my team and I have produced a simple strategy that works best for us and ultimately our cows are pregnant at the end of summer.



Thank you for
listening...
Do you have any
questions for me?

