Programme

Virtual

Empowering Youth through livestock improvement

PROGRAMME DIRECTOR : Ms Emelda Setlhako

1. Opening & Welcome : Mr. T. Molema
2. Purpose of the Day : Ms B. Pule
3. Breeding values of Bonsmarabulls : Mr. P.Bareki

Video clip

4. Veld Managememnt : Mr. Ernest Mokua
5. Herd Health programme : Dr.Midzi
6. Bull distribution list
7. Key note address : MEC D. Mohono
8. Response from Youth Rep.

"Let's grow North West together"

Event	:	**Empowering youth through livestock improvement**
Presenter	:	N.P. Bareki
Presentation title	:	Breeding values of Bonsmara Bulls
Location	:	Virtual and open to youth in the NW Province
Date	:	05 July 2021
Aim	:	Training of pre-selected beneficiaries of Bulls
Purpose	:	To enhance farmers' understanding EBV's of their newly acquired breeding bulls.
Importance	:	Knowledge, interpretation and correct use of EBV's can assist in fast-tracking genetic progress without adverse effects on other traits.

AGRICULTURAL DEVELOPMENT SERVICES

AGRICULTURAL RESEARCH SERVICES

BREEDING VALUES OF THE 2017 BONSMARA BULLS BRED AT THE ARMOEDSVLAKTE RESEARCH STATION

05 JULY 2021

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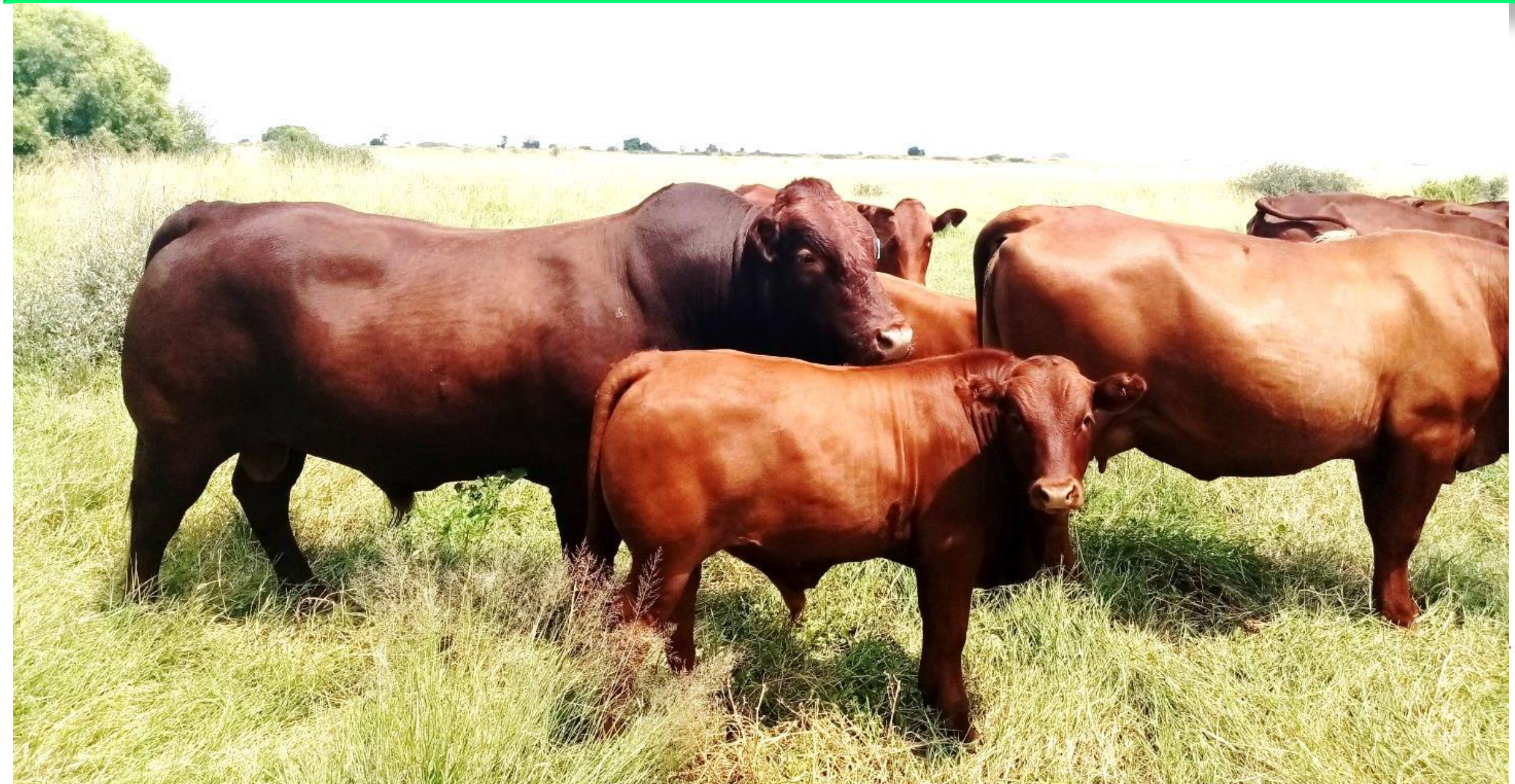
Agriculture & Rural Development
Department:
Agriculture and Rural Development
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

2030 NDP

2017 BONSMARA BULLS



BULL 17-014

Breeding Values 2017 bulls

- Where are breeding values coming from?
- Performance testing of animals
- In beginning only indexes – an animal's index from its performance in its own group
- E.g. – say animal X's wean index for 205 days is 105 . That is 5% better than group

Breeding Values 2017 bulls

- that index of 105 will never change
- Even if this animals' offspring do not perform good, its own index will still remain to be 105
- Another factor that indices are incapable of accounting for fully = Non-genetic influences

that is - Environmental (including management) factors

How to cancel out the Environment?

BLUP → Estimated Breeding Values

EBV = (Animal's Performance – Average Performance of Peers) x Heritability

- Performance of animal, **relatives'**, the offspring's
- Animal performance vs. its contemporaries under **same environmental conditions**
- Animal performance in relation to **other traits**, considering the **genetic correlations**
- **Genetic links** or connections between herds, years, seasons, groups, etc.

- **NB: Estimated Breeding Values are not static**

Breeding values- in simple terms

- Take a 100m race – every one in family / link must run the race
- If average time is 10s for family
- and you run 12s that is 2s slower than average your breeding value
- will be - 2,
- and if you run 8s you are 2s faster than the average, your breeding value will be + 2
- That is why some EBV are positive and others negative

Breeding values - correct

Genetic trends in the Armoedsvlakte herd

	Birth Dir	Wean Dir	Wean Mat	Post wean	Adg	scr	Height	prod value cows
2008	1.08	3.5	4.32	5.9	27	3.5	5	79
2019	1.02	13.8	5.15	22.9	176	20.6	11	118
Breed avg	0.99	13.8	3.82	23.0	122	14.5	4	103

- As you can see good progress was made within herd, by selecting the right type of bulls.
- It is possible

A Bonsmara Auction Catalogue will basically look like this

3	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	DIRECT CALF TRAITS			DAUGHTER TRAITS			GROWTH			EFF	REP	MEASURE-MENTS		R:
ID	Birth Dir	Wean Dir		Birth Mat	Wean Mat	Mat Wgt	Post Wean		ADG	FCR	SC	Hgt	Lgt	LHR BWR
Gen	Acc	Acc		Acc	Acc	Acc	Acc		Acc	Acc	Acc	Acc	Acc	WWR
BULLS														
DOAA17009	97	105		89	127	100	100		100	95	97	95	111	1.21
	2.64	**15.5**		**0.27**	**11.1**	**9**	**21.6**		**95**	**-3.6**	**6.7**	**-2**	**28**	6.09
	76	72		50	54	43	60		62	14	72	73	70	
SP	**39**	**296**	103											50.1
DOAA17039	93	120		93	120	110	117		120	117	108	109	114	1.18
	1.8	**22.5**		**0.07**	**9.1**	**20**	**33.5**		**185**	**-80**	**16**	**9**	**35**	7.5
	76	7.2		51	54	44	61		62	27	71	73	70	
SP	**36**	**319**	114											61.1
Breed Average	**1.1**	**13.4**		**-0.23**	**3.6**	**10**	**21.7**		**94**	**-46**	**9.4**	**2**	**14**	

Lot 1

ID	Birth Dir	Wean Dir	Birth	Wean	Mat	Post Wean	ADG	FCR	SC	Hgt	Lgt	LHR
			Mat	Mat	Wgt							BWR
Gen	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	WWR
DOAA17009	97	105	89	127	100	100	100	95	97	95	111	1.21
	2.64	15.5	0.27	11.1	9	21.6	95	-3.6	6.7	-2	28	6.09
SP	39	296	103									50.1

The EBV's of this bull suggests that we may not use him on heifers

Concern - birth dir of 2.64. If shoulder height, post weaning growth and ADG were also high along with the birth direct then a red flag must go up.

Actual birth mass was only 39kg, and 296kg at wean

WWR – weaning weight ratio with mother is 50.1%. The mother a very efficient cow

A bull with good average breeding values,

- Wean Dir 15.5, above breed avg,
- Wean Maternal 11.1, that is a very good, index of 127, if you herd is not strong in milk, this is the bull you must buy.
- Post Wean of 21.6 is good, Scrotum value is only 6.7 (index of 97) which not wonderful but nonetheless not too bad.
- I personally prefer a index of above 100.

Lot 2

ID	Birth Dir	Wean Dir	Birth Mat	Wean Mat	Mat Wgt	Post Wean	ADG	FCR	SC	Hgt	Lgt	LHR BWR
Gen	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	WWR
DOAA17010	110	93	91	117	99	96	111		105	105	108	
	-.04	9.9	.2	8.6	9	19.2	150	-64	13.9	6	25	
SP	30	276										53.4

The EBV of this bull suggest that he will work well to open heifers
Actual birth masss was only 30kg, and 276kg at wean
WWR – weaning weight ratio with mother is 53.41%. The mother a very efficient cow

- **Birth Dir -.04 and Birth Mat -0.2 , all negative values for smaller calves at birth**
- **Wean Dir 9.9 & Post wean 19.2 are below breed avg,**
-

Wean Maternal 8.6, that is very good, index of 117, if you don't have milk in your herd this is also a bull to buy.

- **The ADG of 150 is very good, this is what you want in a bull, low birth masss and the ability to growth.**
- **A bull with reasonable EBV's, perfect for opening heifers**

Lot 3

ID	Birth Dir	Wean Dir	Birth Mat	Wean Mat	Mat Wgt	Post Wean	ADG	FCR	SC	Hgt	Lgt	LHR BWR
Gen	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	WWR
DOAA17036	96	110	110	120	111	111	126	112	121	100	111	
	1.43	17.9	-.66	9.7	22	29.4	218	-73	26.7	2	30	
SP	34	290										46

Actual birth mass was only 34kg, and 290kg at wean
WWR – weaning weight ratio with mother is 46%. The mother still a reasonably efficient cow.

- **There is far too much to say about this bull. His EBV's are speaking volumes.**
- **Every EBV's of this bull are all exceptional, all his indeces are far above average (Except Bir Dir)**
- **he has Growth, milk, fertility, every thing you want in EBV's, it is there.**

- **This bull will fetch a very high price at an auction if the visual appraisal of bull is also good.**

Lot 4

ID653.4	Birth Dir	Wean Dir	Birth Mat	Wean Mat	Mat Wgt	Post Wean	ADG	FCR	SC	Hgt	Lgt	LHR BWR
Gen	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	WWR
DOAA17039	93	115	93	124	99	113	114	115	106	107	111	
	1.74	20.2	.14	10.7	8	30.7	164	-78	14.5	7	30	
SP	36	319										66

Actual birth mass was only 36kg, and weaning weight 319kg.
WWR – weaning weight ratio with mother is 66%. The mother is a very efficient cow

- **Also a bull with very good EBV's.**
- **Except Bir Dir & Mat, all EBV's of this bull are good, all he's index values is far above average**
- **he has Growth, milk, fertility, every thing you want in EBV, it is there.**
- **Post weaning value of 30.7 (index 113) very good, a bull that can be used for breeding weaners and oxen**

- **This is also a bull that will fetch very high prices at an auction. Unfortunately this bulls tail setting is not perfect, but still acceptable within breeding standards.**

Lot 5

ID653.4	Birth Dir	Wean Dir	Birth Mat	Wean Mat	Mat Wgt	Post Wean	ADG	FCR	SC	Hgt	Lgt	LHR BWR
Gen	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	WWR
DOAA17046	99	99	104	106	93	104	121	111	113	93	106	
	1.15	12.9	-.38	5.8	1	24.5	195	-69	20.3	-4	22	
SP	33kg	272 kg										72

Actual birth mass was only 33kg, and weaning weight 272kg.
WWR – weaning weight ratio with mother is 72%. The mother is a very efficient cow

- **Also a bull with very good EBV's.**
- **Birth Dir is 1.15, not a problem as shoulder height is -4, and you can also see it in the WWR of 72%, the mother must be a small cow, to have such a good ratio.**
- **Poor on mature weight – Excellent bull to bring down large framed cows.**
- **Fertility on this bull 20.3 very good.**

Lot 6

ID653.4	Birth Dir	Wean Dir	Birth Mat	Wean Mat	Mat Wgt	Post Wean	ADG	FCR	SC	Hgt	Lgt	LHR BWR
Gen	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	WWR
DOAA17053	87	89	88	106	76	91	99	95	89	95	99	
	2.42	8.1	.35	5.7	-17	15.2	92	-37	.7	-3	13	
	77				76							
SP	39kg	278 kg										58

NB! Not for use on heifers

Actual birth mass was only 39kg, and weaning weight 278kg.
WWR – weaning weight ratio with mother is 58%. The mother is a very efficient cow

- **A bull with not so good EBV's.**
- **Every EBV of this bull is against it.**
- **Birth Dir 2.42, is a bit high along with he's birth mass of 39kg.**
- **This EBV's is typical of the the original Wesselsvlei Bloodline witch this animals was developed from.**
- **The mother of this calf has already given us a Breeding bull that was used in the herd and was scored a 9 by the inspectors.**

Lot 7

ID653.4	Birth Dir	Wean Dir	Birth Mat	Wean Mat	Mat Wgt	Post Wean	ADG	FCR	SC	Hgt	Lgt	LHR BWR
Gen	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	WWR
DOAA17060	101	88	97	104	77	95	108	99	92	98	102	
	.96	8	-.06	5.1	-16	18.4	135	-44	2.9	0	17	
SP	33kg	275 kg										65

The EBV's of this bull indicate that you can use him to open heifers.
Actual birth mass was only 33kg, and weaning weight 275kg.
WWR – weaning weight ratio with mother is 65%. The mother is a very efficient cow

- **Wean Dir 8, and Post weaning 18.4 are also below average.**
- **Scrotum (fertility) 2.9 is a concern. The bull can be used to open heifers, but to keep the off spring for replacement heifers may be a fertility risk. They will be poor in growth and fertility.**
- **Just remember EBV's is not everything, the visual appraisal is also very important.**
- **Fortunately this is one of the better looking bulls, and I believe it will perform just as good**

Lot 8

ID653.4	Birth Dir	Wean Dir	Birth Mat	Wean Mat	Mat Wgt	Post Wean	ADG	FCR	SC	Hgt	Lgt	LHR BWR
Gen	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	WWR
DOAA17065	114	84	84	113	99	85	99	103	100	95	94	
	-.44	6.1	.28	7.5	94	11	94	-52	9.7	-2	6	
SP	33kg	258 kg										59

The EBV's of this bull
indicate you can use him on heifers.
Actual birth mass was only 33kg, and weaning weight 258kg.
WWR – weaning weight ratio with mother is 59%. The mother is a very efficient cow

- This is perfect bull for opening heifers.
- Birth Dir -.44 way above breed average.

- Wean Dir 6.1 Post weaning is also below average 11.
- Not the best bull for post wean growth.

Lot 9

Lot 9

ID653.4	Birth Dir	Wean Dir	Birth Mat	Wean Mat	Mat Wgt	Post Wean	ADG	FCR	SC	Hgt	Lgt	LHR BWR
Gen	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	WWR
DOAA17105	88	108	86	96	112	102	89	95	99	92	101	
	2.29	17.1	.46	2.9	23	23	45	-35	9.1	-5	15	
SP	38kg	304 kg										66

The EBV's of this bull suggest that we may not use him to open heifers
Actual birth mass was only 38kg, and weaning weight 304kg.
WWR – weaning weight ratio with mother is 66%. The mother a very efficient cow

- **A bull with reasonable EBV's.**
- **It have only two negative values , a low milk value of 2.9, just only below breed average, with a index for milk of 96 and a ADG of only 45, with**
- **a index of 89**

- **One of the better bulls in terms of visual appraisal.**

Lot 10

ID653.4	Birth Dir	Wean Dir	Birth Mat	Wean Mat	Mat Wgt	Post Wean	ADG	FCR	SC	Hgt	Lgt	LHR BWR
Gen	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	Acc	WWR
DOAA17137	86	99	93	114	108	98	92	91	112	104	107	
	2.54	13.1	.13	7.8	18	20.2	59	-28	19	5	25	
SP	38kg	296 kg										51

The EBV's of this bull
Actual birth mass was only 38kg, and weaning weight 296kg.
WWR – weaning weight ratio with mother is 51%. The mother very efficient.
the efficiency is very important you want smaller cows that can wean a heavier calf

- **A bull with average EBV's.**
- **The Birth Dir 2.54 could be a problem on heifers, u can use it safely on mature cows, none of the other EBV"s is complimenting it, Shoulder Height, Wean Dir and Post Wean is all average.**
- **Scrotum of 19 and milk value of 7.8 is good.**
- **Good fertility and Milk**

RE A LEBOGA!