Valera Vale
DROUGHTMASTERS

LOT	ID	Age (Mths)	Scrotal Circum. 26/08/20	Semen		Teeth 26/08/20	Horn \Poll Visual (at Branding)	Poll DNA Test	Brahman Blood DNA Test	Weight Gain Tests		Carcass Scan Data			
				% Motile Crush Side	% NORMAL Morphol.					on Buffel Grass	on Silage Mix	P8	Rib	EMA	IMF
1	19687M	22	37	60%	79%	M	P	**PcPc**	65%	1.11	2.77	12	10	126	5.1
2	19359M	21	39	70%	88%	M	Sc	HPc	62%	1.11	2.75	12	10	124	5.0
3	19429M	24	42	60%	85%	M	Sc	HPc	69%	1.00	2.45	10	8	115	4.7
4	19101M	24	40	70%	74%	M	Sc	HPc	67%	1.07	2.54	12	11	125	5.0
5	19134M	20	32	70%	92%	M	P	HPc	67%	0.93	2.71	11	10	116	4.9
6	19172M	22	38	80%	72%	M	Sc	HPc	61%	1.19	2.72	15	12	122	5.7
7	19255M	21	34	80%	76%	M	Sc	HPc	68%	1.04	1.77	13	12	119	4.9
8	19602M	21	38	60%	73%	M	P	**PcPc**	68%	1.04	2.41	12	10	122	5.0
9	19120M	20	37	70%	90%	M	P	HPc	66%	1.00	2.72	12	9	117	4.8
10	19162M	21	36	70%	85%	M	P	**PcPc**	64%	0.93	2.51	13	11	114	5.2
11	19334M	20	36	80%	60%	M	P	HPc	65%	1.11	2.28	12	9	118	4.5
12	19256M	21	35	80%	81%	M	P	**PcPc**	69%	0.96	2.07	13	11	121	5.0
13	19730M	22	36	60%	73%	M	P	**PcPc**	66%	1.15	1.91	14	12	122	5.5
14	19590M	21	36	70%	72%	M	Sc	HPc	69%	0.96	2.23	12	9	119	4.9
15	19733M	22	34	50%	55%	M	P	**PcPc**	62%	0.89	2.06	10	9	120	4.7
16	19131M	WITHDRAWN													
17	19434M	21	39	70%	77%	M	Sc	HPc	68%	1.19	2.46	11	8	115	4.5
18	19199M	21	35	80%	81%	M	P	**PcPc**	70%	0.81	2.12	11	8	117	4.6
19	19278M	20	37	60%	78%	M	Sc	HPc	69%	0.78	2.19	11	9	118	4.7
20	19526M	21	36	70%	91%	M	P	**PcPc**	70%	0.78	2.20	13	12	124	5.3
21	19584M	21	35	50%	75%	M	P	**PcPc**	62%	1.37	2.33	12	10	118	5.0
22	19210M	21	34	60%	71%	M	P	HPc	71%	0.96	2.07	10	9	119	5.0
23	19282M	20	33	60%	81%	M	Sc	HPc	71%	1.00	2.16	10	8	113	4.4
24	19659M	22	35	80%	87%	M	P	**PcPc**	64%	0.96	1.67	10	9	119	4.8
25	19710M	20	35	60%	85%	M	P	**PcPc**	72%	1.07	1.97	10	8	115	4.9

Valera Vale
DROUGHTMASTERS

LOT	ID	Age (Mths)	Scrotal Circum. 26/08/20	Semen		Teeth 26/08/20	Horn \Poll Visual (at Branding)	Poll DNA Test	Brahman Blood DNA Test	Weight Gain Tests		Carcass Scan Data			
				% Motile Crush Side	% NORMAL Morphol.					on Buffel Grass	on Silage Mix	P8	Rib	EMA	IMF
26	19335M	20	34	70%	77%	M	Sc	HPc	66%	0.67	2.04	11	11	119	4.9
27	19208M	21	35	50%	80%	M	Sc	HPc	71%	0.89	1.68	13	10	110	4.8
28	19292M	19	35	50%	83%	M	P	HPc	62%	1.15	1.94	8	6	114	4.4
29	19205M	20	35	50%	72%	M	P	**PcPc**	68%	0.89	2.07	10	9	112	4.6
30	19322M	20	36	70%	71%	M	P	**PcPc**	70%	0.85	1.83	10	8	110	4.4
31	19232M	22	39	70%	71%	M	P	**PcPc**	63%	1.59	2.77	14	12	126	5.7
32	19229M	20	37	70%	85%	M	Sc	HPc	65%	0.96	2.60	12	8	120	5.0
33	19588M	21	34	80%	73%	M	P	**PcPc**	66%	1.11	2.17	14	11	121	5.1
34	19725M	22	32	80%	83%	M	Sc	HPc	70%	1.30	2.09	11	9	119	4.9
35	19226M	21	36	60%	90%	M	Sc	HPc	66%	1.07	2.39	14	11	121	5.1
36	19233M	21	40	50%	85%	M	Sc	HPc	64%	0.96	2.11	13	10	119	5.0
37	19213M	20	37	70%	85%	M	Sc	HPc	69%	1.11	2.39	13	11	123	5.6
38	19572M	WITHDRAWN													
39	19662M	22	35	60%	63%	M	Sc	HPc	68%	0.89	1.84	9	7	114	4.5
40	19200M	21	39	60%	75%	M	P	**PcPc**	63%	0.89	2.37	13	11	120	5.0
41	19367M	20	36	70%	72%	M	P	HPc	64%	1.11	2.33	12	9	117	4.8
42	19142M	20	38	70%	83%	M	P	**PcPc**	65%	1.11	2.00	11	9	117	4.8
43	19524M	21	34	70%	91%	M	P	HPc	63%	1.15	2.20	15	11	122	5.5
44	19328M	20	35	60%	78%	M	P	**PcPc**	59%	0.93	2.23	12	9	118	4.9
45	19550M	22	36	80%	90%	M	P	**PcPc**	63%	0.96	1.87	12	9	120	5.0
46	19314M	21	36	60%	92%	M	Sc	HPc	72%	0.78	1.97	12	9	117	5.2
47	19365M	20	32	50%	80%	M	P	**PcPc**	67%	0.78	2.03	10	8	115	4.3
48	19288M	20	35	60%	90%	M	P	HPc	62%	0.81	2.09	10	9	115	4.4
49	19608M	22	35	70%	83%	M	Sc	**PcPc**	66%	1.11	2.23	13	10	120	4.8
50	19276M	19	32	80%	71%	M	P	HPc	60%	1.00	2.03	12	8	115	4.3

Valera Vale
DROUGHTMASTERS

LOT	ID	Age (Mths)	Scrotal Circum. 26/08/20	Semen		Teeth 26/08/20	Horn \Poll Visual (at Branding)	Poll DNA Test	Brahman Blood DNA Test	Weight Gain Tests		Carcass Scan Data			
				% Motile Crush Side	% NORMAL Morphol.					on Buffel Grass	on Silage Mix	P8	Rib	EMA	IMF
51	19171M	20	36	50%	71%	M	Sc	HPc	70%	1.33	1.93	10	8	110	4.2
52	19293M	20	34	70%	83%	M	P	**PcPc**	66%	0.96	2.10	12	8	114	4.4
53	19568M	21	35	70%	75%	M	P	HPc	73%	1.33	1.81	11	8	118	5.0
54	19357M	20	36	70%	90%	M	P	**PcPc**	66%	0.96	2.00	10	8	115	4.4
55	19622M	24	40	60%	71%	M	P	**PcPc**	65%	0.78	1.70	12	9	115	4.8
56	19421M	22	37	70%	72%	M	P	**PcPc**	65%	1.41	2.78	13	10	124	5.6
57	19239M	22	39	60%	85%	M	Sc	HPc	60%	1.19	3.00	11	9	122	5.0
58	19544M	WITHDRAWN													
59	19390M	22	38	80%	83%	M	P	HPc	66%	1.04	2.72	12	10	123	5.3
60	19681M	22	39	60%	73%	M	Sc	HPc	68%	1.15	2.84	10	9	119	4.9
61	19237M	22	36	50%	84%	M	Sc	HPc	66%	1.30	2.51	11	9	118	4.8
62	19668M	23	38	60%	75%	M	P	**PcPc**	65%	0.93	2.20	11	8	118	4.8
63	19419M	WITHDRAWN													
64	19130M	20	33	60%	85%	M	P	**PcPc**	65%	1.19	2.22	13	11	122	5.3
65	19260M	22	37	60%	79%	M	P	**PcPc**	68%	1.30	2.16	14	11	124	5.5
66	19551M	20	41	70%	83%	M	P	HPc	63%	1.04	2.17	12	9	118	4.4
67	19121M	21	38	50%	72%	M	P	**PcPc**	68%	1.04	2.61	12	8	118	5.0
68	19564M	21	36	60%	75%	M	Sc	HPc	69%	0.96	2.55	10	8	114	4.8
69	19238M	20	34	60%	58%	M	Sc	HPc	68%	0.89	2.20	9	8	114	4.4
70	19263M	20	34	70%	55%	M	Sc	HPc	58%	1.04	2.49	13	10	117	5.1
71	19148M	20	37	50%	86%	M	P	**PcPc**	72%	1.00	2.13	10	8	113	4.6
72	19361M	22	35	70%	89%	M	P	**PcPc**	64%	0.89	2.67	13	10	120	4.9
73	19510M	22	36	80%	72%	M	P	HPc	66%	1.22	2.30	10	7	115	4.3
74	19669M	23	35	60%	80%	M	P	**PcPc**	65%	1.30	2.54	10	8	114	4.5
75	19440M	20	36	80%	60%	M	P	**PcPc**	69%	0.85	2.29	12	9	114	5.3

Valera Vale DROUGHTMASTERS

LOT	ID	Age (Mths)	Scrotal Circum. 26/08/20	Semen		Teeth 26/08/20	Horn \Poll Visual (at Branding)	Poll DNA Test	Brahman Blood DNA Test	Weight Gain Tests		Carcass Scan Data			
				% Motile Crush Side	% NORMAL Morphol.					on Buffel Grass	on Silage Mix	P8	Rib	EMA	IMF
76	19318M	20	35	60%	60%	M	P	HPc	68%	1.00	2.17	13	10	116	4.7
77	19343M	21	37	60%	84%	M	P	HPc	64%	0.89	2.41	10	8	113	4.8
78	19565M	21	36	60%	84%	M	Sc	HPc	68%	0.93	2.16	9	7	112	4.3
79	19393M	WITHDRAWN													
80	19109M	20	40	70%	88%	M	Sc	HPc	69%	1.00	2.03	9	7	110	4.4
81	19242M	21	38	80%	73%	M	P	**PcPc**	70%	0.96	1.72	10	7	114	4.5
82	19353M	20	36	70%	78%	M	Sc	HPc	63%	1.30	2.76	12	11	123	5.4
83	19663M	22	34	50%	81%	M	P	**PcPc**	65%	0.96	2.45	10	10	121	5.5
84	19541M	WITHDRAWN													
85	19118M	20	36	70%	72%	M	P	**PcPc**	65%	1.04	2.55	11	8	119	4.8
86	19345M	20	35	60%	72%	M	P	**PcPc**	62%	1.15	2.36	12	9	119	5.4
87	19235M	21	36	60%	80%	M	P	**PcPc**	66%	1.30	2.42	11	8	116	5.0
88	19714M	21	37	60%	85%	M	P	**PcPc**	64%	1.04	2.58	12	10	120	5.0
89	19102M	20	38	50%	75%	M	P	**PcPc**	65%	1.07	1.99	10	8	116	4.7
90	19279M	WITHDRAWN													
91	19108M	20	40	70%	59%	M	P	HPc	68%	1.22	2.77	13	10	122	5.5
92	19112M	20	33	70%	60%	M	P	HPc	73%	0.85	2.54	11	9	121	4.9
93	19553M	22	36	60%	72%	M	P	HPc	67%	0.89	2.49	13	11	123	5.4
94	19257M	21	38	50%	73%	M	Sc	HPc	65%	0.93	2.33	10	8	118	5.4
95	19272M	20	35	70%	58%	M	P	HPc	72%	0.93	2.31	11	8	116	5.0
96	19417M	20	36	70%	71%	M	P	**PcPc**	70%	1.00	2.45	12	9	117	5.0
97	19567M	20	32	70%	75%	M	P	HPc	62%	1.30	2.20	9	8	115	4.9
98	19728M	20	34	60%	81%	M	P	HPc	66%	0.74	1.89	9	7	115	4.8
AVERAGES		***21***	***36.1***	***65%***	***77%***	***M***			***66%***	***1.03***	***2.27***	***11***	***9***	***118***	***4.9***

Note: Lot 71 has had a persistent frenulum on his penis removed and is unaffected by this except he should not be used as a stud sire due to the possibility of this being genetic.

Results Back: Lot 25 is DNA sire verified by A. Bradman as catalogued, is PcPc, has 71% Brahman Blood and is Pompes Clear. Neogen Case Id: 996986

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DNA Tests: Poll: As per standard practice the visual appearance of the bulls has been recorded at branding as Horned, Polled or Scurred. In addition, all of the bulls catalogued have been DNA tested by Neogen Australasia to ascertain how many copies of the poll gene they carry as both polled and scurred individuals can carry either one (shown as HPc) or two copies (recorded as PcPc) of the poll gene resulting in different reliability in producing polled offspring. As the Polled (P) gene is dominant to the Horned (H) gene animals having at least one copy of the polled gene do not grow true horns but may be scurred. It is our experience that very few of the HPc females and steers grow much in the way of scurrs.

The test used on the Valera Vale bulls is the latest SNP test which we have found to be very accurate. We were frustrated with the unreliability of the earlier MiP test, but the SNP test has proven very accurate in our herd. We are currently involved in several genomics research projects including the search for the gene which for scurrs in genetically polled animals by Dr. Imtiaz Randhawa. This has involved completing Whole Genome Sequencing of four of our PcPc bulls that have grown small scurrs to find unique gene/genome features resulting in the expression of scurrs if indeed one exists

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Brahman Blood (BB%): The draft has been DNA analysed for Brahman Content shown on the Data sheet as "BB%". We are endeavouring to breed calm cattle with a high level of tropically adapted genes without excessive hump.

Semen Assessment: The bull's semen has been assessed both Crush Side (for live, progressively motile sperm) and in the Laboratory for normal Morphology. There is virtually no evidence that the crush side percentage has any bearing on the number calves a bull produces once the threshold of 30% alive and progressively motile sperm is exceeded. In fact, the variation in crush side percentage is more due to factors not associated with the bull such as collection technique, operator and recent sexual activity. Quoting crush side percentages to compare the semen quality of different bulls is nonsense which is why the Australian Cattle Veterinarians assoc. (ACV) suggests using a tick (60%+) or Q (30-59%) and fail (<30%) to eliminate any notion that differences in the actual number recorded is useful for ranking bulls.

Morphology on the other hand is a more useful assessment and there is a demonstrated association between the morphology percentage and the average number of calves a bull produces, and there is possibly an association with the fertility of his daughters. More importantly some bulls have consistently very high crush side percentages but have DNA defects which are picked up in morphology and these bulls may either be incapable of fertilizing an egg or worse, may produce an embryo that is non-viable and is slipped well before calving. The magic morphology numbers are set at 50% for a useful bull and 70% for

an even more reliable result. From 50% Normal the higher the better although some individual bulls with relatively low scores will outperform bulls with higher scores due to the effects of dominance, variations in libido etc.

Some bulls seem to be susceptible to stress induced morphology defects and have variable results at successive tests. These are probably not good bulls for our environment. In addition, bulls around puberty have higher levels of certain "defects" but will mature to be sound bulls although late sexual maturing bulls should be avoided because of the influence on daughter fertility.

Bulls with high levels of particular defects (especially those related to DNA issues) fail even though they have more than 50% Normal sperm because higher levels of these particular defects are considered to have a significant impact on pregnancy rates. The detailed spermiogram will be available at the sale or by request.

All the bulls presented in this catalogue have passed a morphology test i.e. they not only have passed the morphology threshold of 50% Normal but do not have excessive levels of any individual defect that will impact fertility.

The catalogue has had a Bull Breeding Soundness Evaluation (BBSE) to Australian Cattle Veterinarian's Association standards by experienced and accredited cattle veterinarian Dr. Paul Vetter who will be further endorsing the Valera Vale bulls by buying at the sale. Paul and Margaret's "Cooladdi Park" have used Valera Vale bulls exclusively for many years.

Almost all the dams of these bulls have produced calves every year and are back in calf. This is not by chance as we use dam performance as selection criteria when picking bulls for the sale. At Valera Vale we typically calve as three-year olds because the environment we rear the heifers in is too tough to achieve joining weights as yearlings during our restricted three month joining period.

Scrotal Circumference: Part of Dr Paul Vetter's BBSE assessment includes Scrotal Circumference measurement. To avoid variation a Barth Scrotal Tape with a tension indicator is used as per ACV standards. The magic numbers are 32 cm at under 24 months old and 34 cm minimum over 24 months. Scrotal Circumference is a practical estimate of the volume of the testicles as this is the size of the semen producing factory, and the numbers have been calculated to basically ensure the bull doesn't "run out of semen" if required to mate with reasonably high numbers of females in a limited time frame. It is however not simply a case of the bigger the better, as very large testicles may be indicative of damage or disease and as scrotal size increases, at about 45 cm the percentage of bulls with semen abnormalities increases significantly.

Whilst it is true that fertile herds tend to produce bulls with higher scrotal circumferences the link between high scrotal bulls and higher fertility daughters doesn't seem quite as strong as has been thought. In bulls over 24 months, high 30s and low 40s are the ideal numbers to look for. This years catalogue averages 21 months and over 36 cm.

ADG Gain: Average Daily Weight Gain in Kg/day. These bulls have undergone 2 performance trials. The 2018/19 summer was extremely tough and Valera Vale hadn't had a normal wet for eight years. The calves were weaned down to 1 month of age onto MiFeeds calf muesli and the older calves were fed a silage-based ration. When the season broke the calves were put out on the Buffel grass and run under normal commercial industry management. The bulls that handled this with shiny coats made it into our auction and paddock bull sale group and the bulls that couldn't handle the environment quite as well went on to be feeder steers. The bulls' ability to grow on Buffel grass was measured in a real-world commercial environment in the 2019/20 summer. Only bulls that achieved weight gains at or above average for the No 9 cohort of over 700 bulls were considered for the auction group. In late May 2020 these auction bulls were transferred to Muan and commenced a high fibre silage preparation and their performance in a more favorable environment recorded.

We have included 2 sets of figures for Average Daily Gain:

1. Gain on grass
2. Gain on Silage ration

Many of our clients will be aware of the story run in the QCL and Land newspapers on early weaning last year featuring Valera Vale in the midst of an extreme drought. These are those early weaned calves and many of the bulls in this catalogue were weaned at 1-2 months of age to save the cows.

Carcass Scanning: The bulls have had all the standard ultrasound scans including Intramuscular Fat percentage (IMF) a measure of marbling. An IMF% of 5 or higher is considered to indicate an animal with a high propensity to marble and this draft of bulls averages a very credible 4.9% with very moderate fat cover. This of course has positive impact on eating quality and MSA compliance.

Comparison of scan results across different vendor lines and small drafts is not particularly informative as the results reflect different levels of preparation to a greater extent than genetic variation. Evaluating the meaning of results across one big line of bulls with the same lifetime preparation is more useful. Selecting bulls with above average EMA or IMF from the catalogue will maximize genetic gains for these traits.

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Health: The bulls have had full vaccination courses for the 5 main Clostridial Diseases and Lepto (7 in 1), 3 Germ Tick Fever, Botulism, Vibriosis and 3 Day. The last booster for 7 in 1 and 3 Day was May 16th 2020, Vibriosis in August 26th 2020. The Botulism vaccine used in August '19 was SingVac 3 year for extended immunity. We recommend that boosters are used as required.

The herd is check tested free of Johne's Disease (BJD) on an annual basis and has a JBAS status of 7 (W.A.)

The bulls have been tested clear of persistent infection with Pestivirus. Pestivirus is a viral infection spread in two ways

- between animals (in a similar manner to the 'flu) which results in a short-term infection with usually few long-term consequences unless the animal is stressed or concurrently exposed to some other infectious agent. This exposure will induce high levels of natural immunity.
- Between a calf mother to her unborn calf. This results in either abortion or the production of a calf that is persistently infected (PI). These calves are infected for life, have poorly developed immune systems (there are parallels here with the human AIDS virus) and usually but not always have poor growth rates and succumb to infections with other diseases.

It is important to note that PI animals are not always easily identified visually and an astounding number of PIs have been detected in stud cattle competing at the Royal Shows and offered at sales. Any cow that is PI will produce a PI calf and PI bulls running with non-immune females will also produce PI and aborted calves. Therefore, as there is no way of visually ensuring an animal is not PI, buying bulls not tested for Pestivirus is an unnecessarily risky practice. Introducing a PI animal to a non-immune herd will have disastrous results, and a perfect storm situation is to introduce a young PI bull to susceptible maiden heifers. The Valera Vale catalogue is PI free.

The bulls are tested free of the Genetic Pompes Disease. This inherited wasting disease is present in all Bos indicus and Bos Indicus derived breeds but is recessive so by pro-actively testing our bulls we can guarantee none of their progeny will develop Pompes disease regardless of the genetics of the breeders they are mated to. This is particularly important in smaller herds using a limited number of bulls because buying a small number of carrier bulls could result in a significant production impact.