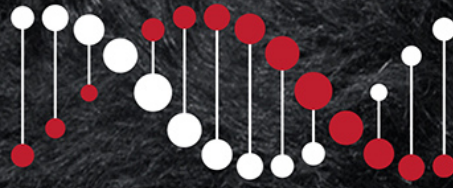


# TACE



TransTasman Angus Cattle Evaluation

## ANGUS ImmuneDEX

### RESEARCH BREEDING VALUES

MID JUNE 2024

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## BACKGROUND

Angus Australia has partnered with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to undertake research into the genetics of traits related to immune competence and resilience. An animal's resilience is defined as their capacity to cope with environmental challenges, especially those leading to disease, and to subsequently return to being productive.

This has involved collecting and analysing immune competence phenotypes on ~4000 Angus steers and heifers at weaning, primarily from the Angus Sire Benchmarking Program (ASBP). This information, combined with genotypes (i.e. DNA profiles), was analysed to determine genetic parameter estimates (heritabilities and correlations) and to produce Research Breeding Values for immune competence.

More specifically, immune competence was assessed by combining measures of antibody-mediated immune responses (Ab\_IR), through a blood test, and cell-mediated immune responses (Cell\_IR), through a skin reaction test. Pathogens, like the bacteria and viruses associated with Bovine Respiratory Disease (BRD), differ in the way they infect the host animal. For instance, many bacteria live outside host cells while viruses replicate within host cells. The immune system tailors how it responds to different pathogens with extra-cellular pathogens most effectively controlled by Ab\_IR and intracellular pathogens most effectively controlled by Cell\_IR.

Individuals identified as having a balanced ability to mount both a Cell\_IR and Ab\_IR response are expected to exhibit broad-based disease resistance against a wide range of pathogens. For this reason, an index value (ImmuneDEX) has been developed which combines research breeding values for the Cell\_IR and Ab\_IR traits into a single value. The process by which the ImmuneDEX value is generated ensures appropriate weightings are given to component traits so that high ImmuneDEX animals have a balanced response, and genetic gains in both traits are driven at similar rates.

The ImmuneDEX value is moderately heritable and negatively correlated with some of the production traits (e.g. carcass weight and eye muscle area), while being favourably correlated with the stress and temperament related traits.

Additionally, on a subset 1149 steers from this study, disease incidence during the feedlot feeding period was examined. Prior vaccination and minimal mixing with unfamiliar animals at feedlot entry provided a low disease risk environment in the study. Nonetheless, animals with superior immune competence phenotypes had significantly fewer health-related mortalities, and incurred substantially lower health related costs during feedlot finishing.

## UNDERSTANDING THE ImmuneDEX RBV

ImmuneDEX Research Breeding Values (RBVs) are provided in this publication for sires with (i) at least 50% accuracy for their ImmuneDEX RBV, and (ii) one or more progeny born in the last two years.

The ImmuneDEX RBV provides an estimate of genetic differences between animals for overall immune competence, a key component of resilience.

Higher ImmuneDEX RBVs indicate an animal is expected to produce progeny with an enhanced ability to resist disease challenges and therefore have lower disease incidence. Lower ImmuneDEX RBVs indicate an animal is expected to produce progeny with a higher incidence of disease and associated production losses.

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## **USING THE RESEARCH BREEDING VALUES IN SELECTION**

The ImmuneDEX RBVs in this publication will enable Angus breeders to place selection emphasis on immune competence and resilience traits, while continuing selection for other traits of importance within their breeding objective.

It is important to note that the RBVs for AB\_IR and Cell\_IR that underpin the ImmuneDex values are subject to greater potential change than EBVs routinely reported as part of the TransTasman Angus Cattle Evaluation (TACE), and ImmuneDEX RBVs should be used with caution in animal selection decisions.

ImmuneDEX RBVs, and the component Research Breeding Values for AB\_IR and Cell\_IR, may change as improvements are made to the analytical models that are used, and as additional performance information is collected and methodologies for assessing resilience traits continue to evolve.

## **ACKNOWLEDGEMENTS**

Angus Australia gratefully acknowledges the ASBP co-operator herd owners for allowing access to animals for testing. Contributions of the Commonwealth Scientific and Industrial Research Organisation (CSIRO) are also acknowledged, and in particular, Dr Brad Hine, Dr Aaron Ingham, Dominic Niemeyer, Amy Bell, Dr Sonja Dominik, Dr Toni Reverter-Gomez, Dr Laercio Porto Neto and Dr Ian Colditz. Assistance provided by Bob Dent in the initial methodology development work is also gratefully acknowledged.

Meat and Livestock Australia (MLA) and the Australian Lot Feeders Association (ALFA) are acknowledged for co-funding projects related to the development and validation of the immune competence phenotyping methodology. MLA is further acknowledged for co-funding the Angus Sire Benchmarking Program (ASBP)

## **DISCLAIMER**

The ImmuneDEX RBVs contained within this publication were calculated from data supplied to Angus Australia by members and/or third parties. Whilst every effort is made to ensure the accuracy of the data, Angus Australia, its officers and employees, assume no responsibility for the accuracy of the RBVs, nor the outcome (including consequential loss) of an action taken based on the information presented in this publication.

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# Angus Australia - ImmuneDEX Research Breeding Values

Date: June 18, 2024

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Ident	Name																										
Sire Dam	Reg.	ImmuneDEX IMD	Calv-Ease		Birth		Growth			Maternal		Fert		Carcase					Feed	Temp	Structural		Selection Index				
			Dir	Dtrs	GL	BW	200	400	600	MCW	Milk	SS	DC	CW	EMA	Rib	P8	RBY	IMF	NFI-F	Doc	Claw	Angle	Leg	\$A	\$A-L	
<b>USA15719841</b> USA13880818 USA15151449	<b>A A R TEN X 7008 S A</b> <sup>SV</sup> HBR	+56	+4.0	+7.0	-4.5	+2.8	+59	+106	+137	+108	+19	+2.2	-3.2	+77	+5.8	-3.3	-6.8	+0.9	+2.4	-0.09	+12	+1.44	+1.02	+0.80	\$214	\$370	
		83%	96%	90%	99%	98%	98%	98%	98%	97%	98%	98%	84%	96%	95%	95%	95%	94%	95%	89%	97%	99%	99%	94%			
		35	34	12	48	24	16	15	16	40	36	47	81	22	56	97	99	25	44	19	82	99	61	4	38	33	
<b>NXOL172</b> NXOF43 NXOJ432	<b>AJC L172</b> <sup>SV</sup> APR	+46	+6.7	+8.0	-6.1	+3.1	+59	+102	+139	+132	+14	+2.3	-4.8	+71	+6.7	-0.7	+0.3	+0.3	+1.1	-0.99	+23	+1.40	+1.28	+1.18	\$216	\$404	
		69%	76%	61%	94%	96%	94%	94%	94%	88%	87%	83%	55%	91%	89%	84%	89%	82%	91%	83%	85%	85%	85%	81%			
		51	13	6	24	30	15	22	13	12	75	43	45	38	45	63	38	60	79	1	40	99	96	89	35	12	
<b>DGJG10</b> VTMB1 DGJZ15	<b>ALLOURA GET CRACKING G10</b> <sup>SV</sup> HBR	+53	+8.1	+7.4	-3.0	+2.5	+43	+75	+86	+85	+12	-0.3	-8.2	+46	+14.0	+1.6	+0.5	+1.0	+5.2	+0.42	+6	+0.52	+1.02	+0.92	\$270	\$429	
		69%	94%	85%	99%	99%	98%	98%	98%	98%	97%	97%	77%	96%	94%	94%	94%	91%	93%	89%	97%	96%	96%	94%			
		39	6	9	72	20	82	91	96	76	84	99	3	94	2	16	35	20	4	72	95	4	61	18	2	4	
<b>DGJL94</b> USA15832750 DGJH24	<b>ALLOURA LOCK STOCK &amp;</b> HBR	+44	+5.8	+1.0	-4.1	+2.7	+56	+94	+124	+124	+13	+1.0	-4.4	+64	+0.5	+1.7	-1.6	+0.2	+2.3	-0.41	+25	+0.84	+0.90	+0.92	\$190	\$352	
		64%	79%	71%	93%	95%	94%	94%	91%	87%	87%	53%	89%	84%	80%	85%	77%	87%	78%	93%	84%	82%	77%				
		55	19	72	55	23	25	43	39	19	82	86	55	61	97	15	71	66	47	4	31	49	32	18	65	48	
<b>DGJQ30</b> WWEL3 DGJK117	<b>ALLOURA QUINELLA Q30</b> <sup>SV</sup> HBR	+13	+2.5	+2.1	+0.4	+3.0	+54	+100	+117	+119	+14	+3.2	-7.5	+73	+13.8	+0.7	+0.9	+1.1	+4.4	+0.37	+16	+0.94	+1.04	+1.16	\$273	\$452	
		51%	73%	65%	94%	93%	91%	90%	91%	86%	78%	81%	56%	80%	79%	80%	80%	74%	81%	81%	88%	83%	83%	78%			
		97	49	61	97	28	35	27	53	24	70	17	5	32	2	31	28	16	9	67	69	69	66	85	2	2	
<b>NAQA241</b> USA2928 NAQW38	<b>ARDROSSAN EQUATOR A241</b> <sup>PV</sup> HBR	+49	-1.9	+2.8	-4.5	+4.1	+50	+92	+122	+109	+20	+3.2	-8.2	+87	+8.4	-2.2	-0.3	+1.4	+1.2	+0.71	+25	+0.48	+0.86	+1.00	\$224	\$379	
		80%	99%	98%	99%	99%	99%	99%	99%	99%	99%	99%	95%	98%	98%	98%	98%	98%	98%	96%	99%	99%	99%	99%			
		46	81	54	48	52	56	51	43	39	25	17	3	7	26	89	49	8	77	91	31	3	23	40	26	26	
<b>NAQN329</b> NAQH318 NAQK30	<b>ARDROSSAN HOLBROOK N329</b> HBR	+22	-2.4	+0.6	-2.9	+2.7	+46	+86	+109	+76	+23	+2.7	-7.3	+70	+5.1	+2.3	+2.4	-0.8	+4.0	+1.08	+14	+0.80	+0.98	+0.92	\$212	\$337	
		54%	77%	67%	96%	95%	95%	95%	94%	89%	89%	85%	57%	90%	89%	89%	89%	81%	91%	83%	90%	81%	87%	83%			
		89	83	75	73	23	73	68	71	85	13	29	6	42	65	9	12	97	13	99	76	40	52	18	40	60	
<b>NAQH255</b> NORE11 NAQD17	<b>ARDROSSAN HONOUR H255</b> <sup>PV</sup> HBR	+27	-1.9	-0.9	-2.8	+4.6	+43	+75	+97	+96	+13	+2.2	-5.6	+61	+5.6	+0.8	-1.2	+0.6	+2.1	+1.01	+9	+0.46	+1.02	+1.24	\$159	\$283	
		81%	96%	89%	99%	99%	98%	98%	98%	98%	98%	98%	84%	96%	96%	96%	96%	95%	96%	92%	98%	97%	97%	96%			
		82	81	84	75	64	82	91	88	59	82	47	27	69	59	29	65	41	52	98	90	2	61	95	88	89	
<b>QQFH147</b> VTME343 NMMF123	<b>ASCOT HALLMARK H147</b> <sup>PV</sup> HBR	+47	-2.9	+2.1	-5.0	+7.2	+60	+110	+151	+133	+15	+3.7	-5.5	+80	-2.1	+0.7	-0.1	-0.8	+3.1	+0.27	+18	+0.46	+0.84	+1.02	\$195	\$359	
		72%	95%	87%	99%	99%	98%	98%	98%	97%	98%	98%	79%	96%	95%	95%	95%	94%	95%	89%	97%	95%	95%	93%			
		50	85	61	40	96	13	9	5	11	68	9	29	17	99	31	45	97	28	56	60	2	20	47	60	42	
<b>HIOE7</b> VTMB219 BVVB32	<b>AYRVALE BARTEL E7</b> <sup>PV</sup> HBR	+41	+8.5	+9.2	-4.4	+1.8	+49	+86	+113	+74	+26	+2.6	-8.4	+64	+7.6	-0.7	+0.5	+1.3	+3.4	+0.30	+5	+1.04	+1.00	+1.12	\$289	\$448	
		85%	99%	97%	99%	99%	99%	99%	99%	99%	99%	99%	93%	98%	98%	98%	98%	98%	98%	96%	99%	99%	99%	99%			
		60	5	3	50	11	59	67	64	87	5	32	2	60	34	63	35	10	22	60	96	85	57	77	1	2	
<b>NBBN47</b> HIOG18 NBBL83	<b>BALD BLAIR NELSON N47</b> <sup>PV</sup> HBR	+25	+2.9	-2.7	-5.0	+4.3	+56	+105	+153	+160	+13	+0.9	-4.4	+84	+4.1	-1.1	-0.9	+0.9	+0.6	-0.21	+29	+0.96	+1.10	+1.22	\$178	\$361	
		50%	78%	67%	95%	95%	93%	93%	93%	90%	85%	90%	62%	88%	87%	87%	88%	80%	89%	82%	90%	86%	86%	82%			
		85	45	92	40	57	26	16	4	2	79	88	55	11	76	71	60	25	88	11	19	73	78	93	75	41	
<b>ECMK63</b> NZE14647008839 ECMH45	<b>BANNABY REALITY K63</b> <sup>PV</sup> HBR	+74	+4.0	-0.7	-2.7	+3.8	+43	+76	+99	+99	+13	+2.0	-0.7	+52	+5.2	-1.3	-1.5	+0.5	+1.3	-0.21	+27	+0.52	+1.00	+1.24	\$118	\$238	
		68%	80%	70%	96%	96%	94%	94%	94%	90%	84%	90%	62%	91%	89%	89%	90%	85%	91%	85%	91%	89%	89%	85%			
		10	34	83	76	45	82	89	86	54	80	54	98	88	63	75	70	48	74	11	23	4	57	95	99	97	
<b>NUIF32</b> NGMC196 NUID96	<b>BONNY BROOKE FALCO F32</b> <sup>SV</sup> HBR	+49	-5.7	-8.9	+0.1	+6.5	+49	+75	+97	+90	+16	-1.1	-2.4	+59	-2.3	+2.4	+2.1	-0.9	+1.5	-0.28	+19	+0.96	+0.92	+1.06	\$107	\$192	
		53%	67%	54%	91%	89%	91%	89%	91%	84%	78%	76%	51%	84%	82%	82%	83%	73%	82%	73%	81%	79%	79%	74%			
		46	93	99	96	92	60	91	89	69	57	99	91	73	99	8	14	98	69	8	58	73	37	60	99	99	
<b>Breed Average EBVs</b>		<b>+47</b>	<b>+1.7</b>	<b>+2.7</b>	<b>-4.4</b>	<b>+4.0</b>	<b>+51</b>	<b>+92</b>	<b>+119</b>	<b>+102</b>	<b>+17</b>	<b>+2.2</b>	<b>-4.6</b>	<b>+67</b>	<b>+6.4</b>	<b>-0.1</b>	<b>-0.3</b>	<b>+0.5</b>	<b>+2.3</b>	<b>+0.22</b>	<b>+21</b>	<b>+0.84</b>	<b>+0.97</b>	<b>+1.02</b>	<b>+200</b>	<b>+345</b>	

# Angus Australia - ImmuneDEX Research Breeding Values

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Ident	Name																										
Sire Dam	Reg.	ImmuneDEX IMD	Calv-Ease		Birth		Growth			Maternal			Fert		Carcase				Feed	Temp	Structural		Selection Index				
			Dir	Dtrs	GL	BW	200	400	600	MCW	Milk	SS	DC	CW	EMA	Rib	P8	RBY	IMF	NFI-F	Doc	Claw	Angle	Leg	\$A	\$A-L	
<b>HCAG013</b> VTMA217 VTMZ618	<b>BOONAROO GRAVITY G013</b> <sup>PV</sup> HBR	+87 70% 2	+5.4	+4.0	-5.4	+3.6	+51	+88	+115	+102	+23	+3.8	-5.6	+56	+4.5	-2.9	-3.3	+1.3	+3.0	-0.75	+21	+0.50	+0.92	+1.06	\$219	\$373	
<b>NGMN418</b> WWEL3 NGML471	<b>BOOROOMOOKA JACKPOT N418</b> HBR	+24 50% 87	+2.3	+7.0	-8.8	+5.3	+61	+109	+134	+130	+7	+3.4	-6.5	+79	+8.9	-0.6	+0.0	+0.9	+2.4	+0.27	+29	+1.34	+1.08	+1.04	\$258	\$446	
<b>NGMP96</b> WWEL3 NGMM566	<b>BOOROOMOOKA PARAGON P96</b> HBR	+15 52% 96	-3.6	+2.3	-7.5	+3.7	+62	+120	+161	+129	+31	+3.4	-7.9	+109	+13.2	-2.6	-1.4	+1.8	+1.8	+0.86	+33	+0.88	+1.02	+1.14	\$283	\$460	
<b>BOWK2</b> VTME343 NAQZ31	<b>BOWMAN AUSTRALIA K2</b> <sup>PV</sup> HBR	+43 74% 56	+7.2	+3.1	-6.4	+3.6	+49	+97	+122	+96	+22	+5.0	-8.1	+69	+7.9	-0.2	-1.7	+1.0	+1.3	-0.64	+14	+0.86	+1.02	+0.98	\$234	\$403	
<b>SRKK306</b> NJWG279 TFAD58	<b>BOWMONT KING K306</b> <sup>PV</sup> HBR	+31 69% 77	-1.8	-9.0	-4.8	+4.5	+49	+78	+103	+89	+2	-0.4	-5.0	+64	+15.1	-0.4	-2.0	+1.7	+4.7	+0.49	+25	+0.54	+0.92	+0.70	\$234	\$347	
<b>GTNP9</b> HKFJ5 GTNK26	<b>CHILTERN PARK PICASSO P9</b> <sup>PV</sup> HBR	+37 53% 67	+8.0	+8.2	-3.3	+1.4	+55	+104	+135	+94	+25	+3.6	-7.6	+94	+6.7	-0.9	+0.8	-0.4	+4.2	+0.70	+29	+0.66	+0.70	+0.88	\$274	\$453	
<b>QMUM13</b> USA16295688 QMUG1	<b>CLUNES CROSSING DUSTY M13</b> HBR	+35 50% 70	+1.0	+3.9	-7.0	+5.3	+64	+101	+119	+63	+15	+1.0	-6.8	+71	+12.9	-2.6	-3.3	+1.2	+1.8	+0.21	+10	+0.90	+0.88	+1.00	\$292	\$421	
<b>NBHK330</b> NJWG279 NBHH381	<b>CLUNIE RANGE KALUHA K330</b> <sup>PV</sup> HBR	+3 71% 99	-1.1	-11.7	-4.9	+5.6	+55	+97	+127	+101	+15	+1.6	-7.0	+92	+9.5	+0.0	-1.3	+1.2	+2.9	+0.26	+5	+0.68	+0.94	+1.16	\$242	\$375	
<b>NBHL348</b> NZE14647008839 AHWJ81	<b>CLUNIE RANGE LEGEND L348</b> <sup>PV</sup> HBR	+18 68% 93	-6.6	+4.6	-7.8	+5.8	+57	+103	+125	+153	+0	+2.9	-6.9	+61	+0.1	+3.6	+1.2	-0.8	+2.4	+0.05	+24	+0.52	+0.80	+1.24	\$163	\$338	
<b>WDCH249</b> USA14885809 WDCE9	<b>COONAMBLE HECTOR H249</b> <sup>SV</sup> HBR	+33 70% 73	+0.7	+0.7	-8.3	+4.5	+44	+79	+99	+90	+5	+1.2	-4.9	+44	+9.2	+4.1	+4.5	+0.6	+0.1	-0.51	+40	+0.42	+0.48	+0.78	\$182	\$312	
<b>WDCK314</b> NAQA241 WDCC94	<b>COONAMBLE KEVIN K314</b> <sup>PV</sup> HBR	+99 65% 1	-0.8	+4.1	-2.2	+4.4	+50	+100	+131	+110	+25	+4.4	-7.0	+82	+7.5	+0.2	+0.7	+0.2	+1.6	+0.60	+41	+0.52	+1.12	+1.22	\$209	\$370	
<b>BHRH744</b> BNAD145 BHRD202	<b>DUNOON HIGHPOINT H744</b> <sup>SV</sup> HBR	+38 74% 65	-12.4	-13.1	-3.9	+7.0	+56	+97	+129	+133	+16	+2.7	-5.6	+88	+5.6	-1.9	-1.3	+1.5	+1.0	-0.48	+19	+0.66	+0.82	+1.08	\$156	\$276	
<b>USA16198796</b> USA14686137 USA15452880	<b>EF COMPLEMENT 8088</b> <sup>PV</sup> HBR	+15 85% 96	+4.6	+7.1	-4.7	+2.9	+53	+98	+130	+98	+21	+1.4	-6.8	+75	+7.8	+1.1	+0.5	+0.8	+1.5	+0.54	+20	+0.94	+1.28	+1.16	\$252	\$416	
<b>Breed Average EBVs</b>		<b>+47</b>	<b>+1.7</b>	<b>+2.7</b>	<b>-4.4</b>	<b>+4.0</b>	<b>+51</b>	<b>+92</b>	<b>+119</b>	<b>+102</b>	<b>+17</b>	<b>+2.2</b>	<b>-4.6</b>	<b>+67</b>	<b>+6.4</b>	<b>-0.1</b>	<b>-0.3</b>	<b>+0.5</b>	<b>+2.3</b>	<b>+0.22</b>	<b>+21</b>	<b>+0.84</b>	<b>+0.97</b>	<b>+1.02</b>	<b>+200</b>	<b>+345</b>	

# Angus Australia - ImmuneDEX Research Breeding Values

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Ident	Name																									
Sire Dam	Reg.	ImmuneDEX IMD	Calv-Ease		Birth		Growth			Maternal			Fert		Carcase				Feed	Temp	Structural		Selection Index			
			Dir	Dtrs	GL	BW	200	400	600	MCW	Milk	SS	DC	CW	EMA	Rib	P8	RBY	IMF	NFI-F	Doc	Claw	Angle	Leg	\$A	\$A-L
<b>WWEQ15</b> VTMG67 WWEN17	<b>ESLEMONT GARTH Q15</b> <sup>PV</sup> HBR	+36 52% 68	-2.5 75% 83	+2.3 67% 59	-8.3 93% 6	+5.6 91% 82	+63 90% 7	+111 90% 8	+151 90% 5	+143 86% 6	+28 79% 6	+2.4 83% 39	-6.5 61% 13	+69 87% 43	+5.9 86% 55	-3.7 87% 94	-3.9 78% 54	+0.4 89% 13	+4.0 82% 3	-0.47 86% 2	+44 80% 57	+0.88 80% 84	+1.14 80% 84	+1.04 77% 53	\$232 19	\$406 11
<b>WWEL3</b> HIOG18 WWEJ8	<b>ESLEMONT LOTTO L3</b> <sup>PV</sup> HBR	+8 77% 99	-6.3 87% 94	-1.9 86% 89	-5.4 99% 34	+4.6 99% 64	+60 99% 14	+110 99% 8	+139 99% 13	+134 98% 11	+16 98% 56	+3.6 98% 10	-8.8 82% 2	+91 97% 5	+14.3 96% 2	-0.4 96% 55	+0.4 96% 36	+1.7 95% 4	+3.2 96% 26	+0.37 92% 67	+15 98% 74	+1.12 98% 92	+1.00 98% 57	+1.14 97% 81	\$277 2	\$449 2
<b>WWEQ24</b> WWEN12 WWEN7	<b>ESLEMONT QUOKKA Q24</b> <sup>PV</sup> HBR	+53 52% 39	+5.4 74% 22	+0.6 63% 75	-4.6 95% 47	+1.6 95% 9	+43 93% 85	+84 93% 73	+98 92% 88	+52 87% 98	+21 78% 19	+4.2 89% 5	-6.3 57% 16	+65 89% 55	+16.8 88% 1	+1.4 88% 19	-0.1 89% 45	+2.3 79% 1	+2.1 91% 52	+1.21 83% 99	+30 87% 17	+0.76 73% 32	+0.90 73% 32	+0.94 70% 23	\$269 2	\$394 17
<b>WWE21S6</b> NGMN418 WWEN7	<b>ESLEMONT SEAN S6</b> <sup>PV</sup> HBR	+27 54% 82	+4.9 69% 26	+6.9 62% 12	-5.7 94% 30	+3.0 91% 28	+55 90% 28	+97 86% 33	+113 86% 63	+86 84% 74	+16 78% 56	+4.4 82% 4	-5.5 51% 29	+78 79% 21	+17.3 75% 1	+2.3 75% 9	+0.5 76% 35	+1.4 68% 8	+3.6 79% 19	+1.02 70% 98	+26 88% 26	+1.06 65% 87	+1.22 65% 93	+1.10 63% 72	\$285 1	\$444 2
<b>USA16295688</b> USA13009379 USA15129456	<b>G A R PROPHET</b> <sup>SV</sup> HBR	+43 88% 56	+3.3 98% 41	+5.1 94% 28	-0.7 99% 99	+3.7 99% 43	+67 99% 3	+107 99% 12	+134 99% 21	+85 99% 76	+23 99% 12	+0.7 99% 91	-5.0 90% 40	+71 98% 39	+3.6 97% 81	-1.2 97% 73	-1.3 98% 67	-0.7 97% 96	+4.7 96% 6	+0.81 94% 94	+26 99% 27	+1.02 99% 82	+0.82 99% 16	+0.92 98% 18	\$270 2	\$416 8
<b>USA17328461</b> USA16205036 USA16431932	<b>G A R SURE FIRE</b> <sup>SV</sup> HBR	+96 79% 1	+6.4 95% 15	+1.7 86% 65	-3.0 99% 72	+2.3 99% 17	+50 98% 56	+91 98% 54	+113 98% 63	+84 97% 77	+20 98% 30	+4.1 98% 5	-7.3 80% 6	+63 96% 63	+7.8 96% 32	-0.5 96% 58	-0.5 96% 52	+0.9 94% 25	+3.6 96% 19	-0.12 89% 17	+26 96% 29	+1.18 99% 96	+0.94 99% 41	+0.60 92% 1	\$258 5	\$412 9
<b>QBGH221</b> BNAD145 QBGD80	<b>GLENOCH HINMAN H221</b> <sup>SV</sup> HBR	+69 70% 16	+5.4 84% 22	-2.7 75% 92	-2.9 97% 73	+3.0 97% 28	+53 96% 39	+93 96% 45	+125 96% 37	+115 92% 29	+20 93% 26	+0.9 95% 88	-3.7 69% 72	+84 92% 11	+7.5 91% 35	-1.9 91% 85	-5.0 91% 98	+0.9 87% 25	+5.2 92% 4	-0.37 85% 5	+10 86% 89	+0.88 88% 57	+0.80 89% 14	+1.04 85% 53	\$217 35	\$366 37
<b>DKKM41</b> NORH708 DKKJ51	<b>HARDHAT H708 MAIMURU J51</b> APR	+86 50% 2	-1.2 70% 77	+3.7 62% 44	-1.7 95% 87	+2.1 93% 14	+43 91% 84	+91 91% 54	+118 91% 52	+96 87% 60	+11 82% 88	+1.4 82% 75	-3.6 64% 74	+61 89% 67	+2.2 89% 90	+1.0 88% 25	-2.1 89% 79	-0.4 80% 90	+6.3 91% 1	+0.08 84% 35	+23 88% 40	+1.04 88% 85	+1.00 88% 57	+1.10 85% 72	\$189 66	\$322 70
<b>NHZF1023</b> VTMB1 NHZB723	<b>HAZELDEAN F1023</b> <sup>SV</sup> APR	+41 68% 60	+3.8 92% 36	+0.4 81% 76	-2.6 98% 77	+3.2 98% 32	+39 98% 92	+75 98% 91	+88 98% 95	+70 97% 90	+14 97% 76	+3.6 97% 36	-5.2 77% 90	+49 95% 76	+7.8 94% 32	+2.3 94% 9	-0.2 94% 47	+0.2 90% 66	+5.9 94% 2	+1.35 88% 99	+12 98% 82	+0.46 97% 2	+0.98 97% 52	+1.06 94% 60	\$211 41	\$335 61
<b>NHZM586</b> NHZJ140 NHZH356	<b>HAZELDEAN M586</b> <sup>SV</sup> APR	+71 51% 14	+6.6 87% 14	+9.1 71% 3	-8.3 98% 6	+2.5 98% 20	+48 97% 62	+86 97% 68	+116 97% 56	+103 96% 49	+18 94% 42	+4.0 96% 6	-11.4 71% 1	+69 92% 46	+5.0 92% 66	-0.1 93% 48	+0.2 92% 40	+0.1 87% 72	+4.3 94% 10	+0.89 88% 81	+37 96% 12	+0.56 95% 45	+1.02 94% 66	+1.18 91% 81	\$268 3	\$457 1
<b>NHZQ319</b> NHZM586 NHZL1175	<b>HAZELDEAN Q319</b> <sup>PV</sup> APR	+70 51% 15	+4.9 76% 26	+9.3 60% 2	-8.8 97% 5	+2.7 97% 23	+54 96% 36	+104 95% 17	+142 95% 11	+139 88% 8	+18 80% 41	+3.2 94% 17	-11.5 56% 1	+77 83% 22	+5.6 83% 59	+1.7 83% 15	+0.4 83% 36	-0.6 76% 94	+4.3 84% 10	+0.53 82% 81	+32 96% 12	+0.82 89% 45	+1.04 88% 66	+1.14 84% 81	\$269 2	\$487 1
<b>BLAP130</b> SRKK306 BLAK113	<b>KNOWLA PACKER P130</b> <sup>PV</sup> HBR	+16 51% 95	+2.2 73% 52	+0.8 63% 73	-3.0 93% 72	+4.6 91% 64	+55 89% 30	+101 89% 25	+133 89% 22	+114 85% 31	+11 78% 89	+1.0 85% 86	-5.8 54% 24	+76 85% 25	+7.9 84% 31	+0.3 84% 39	-0.9 85% 60	+0.8 77% 30	+2.0 87% 55	+0.12 77% 39	+26 84% 29	+0.82 78% 45	+1.22 78% 93	+0.94 74% 23	\$232 20	\$392 18
<b>BLAP91</b> HIOG18 BLAL06	<b>KNOWLA PEPPER P91</b> <sup>PV</sup> HBR	+22 53% 89	+5.0 78% 25	+2.5 70% 57	-5.7 95% 30	+3.7 95% 43	+61 93% 12	+115 93% 5	+143 94% 10	+166 88% 2	+9 83% 96	+1.6 90% 69	-8.2 62% 3	+67 90% 49	+8.6 89% 24	+1.6 88% 16	-1.2 89% 65	+1.1 81% 16	+2.5 90% 42	+0.39 85% 69	-3 90% 99	+0.98 91% 76	+1.04 91% 66	+1.02 88% 47	\$259 5	\$479 1
<b>Breed Average EBVs</b>		<b>+47</b>	<b>+1.7</b>	<b>+2.7</b>	<b>-4.4</b>	<b>+4.0</b>	<b>+51</b>	<b>+92</b>	<b>+119</b>	<b>+102</b>	<b>+17</b>	<b>+2.2</b>	<b>-4.6</b>	<b>+67</b>	<b>+6.4</b>	<b>-0.1</b>	<b>-0.3</b>	<b>+0.5</b>	<b>+2.3</b>	<b>+0.22</b>	<b>+21</b>	<b>+0.84</b>	<b>+0.97</b>	<b>+1.02</b>	<b>+200</b>	<b>+345</b>

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Ident	Name																										
Sire Dam	Reg.	ImmuneDEX IMD	Calv-Ease		Birth		Growth			Maternal			Fert			Carcase				Feed	Temp	Structural		Selection Index			
			Dir	Dtrs	GL	BW	200	400	600	MCW	Milk	SS	DC	CW	EMA	Rib	P8	RBY	IMF	NFI-F	Doc	Claw	Angle	Leg	\$A	\$A-L	
<b>VLYN131</b> USA16295688 VLYL710	<b>LAWSONS CHARLIE N131</b> <sup>SV</sup> HBR	+56 56% 35	-2.9 80% 85	-1.0 72% 85	-3.9 95% 58	+5.5 96% 81	+72 95% 1	+128 94% 1	+159 92% 2	+128 88% 15	+17 85% 46	+2.9 91% 24	-4.8 65% 45	+78 87% 21	+5.2 86% 63	-2.0 86% 87	-1.6 87% 71	-0.1 79% 81	+1.0 88% 81	+0.35 80% 65	+33 94% 10	+0.88 92% 57	+0.74 92% 7	+0.88 88% 11	\$231 21	\$394 17	
<b>VLYL483</b> HKFJ5 VLYH221	<b>LAWSONS LINKEDIN L483</b> <sup>SV</sup> HBR	+55 67% 36	+4.1 87% 33	-6.0 78% 98	-1.2 98% 90	+4.0 98% 50	+58 97% 20	+108 97% 11	+152 97% 4	+141 95% 7	+25 95% 6	+4.0 94% 6	-4.2 67% 60	+103 92% 1	+8.8 89% 23	-1.1 88% 71	+1.9 91% 16	+0.3 84% 60	+1.8 91% 61	-0.23 82% 10	+20 89% 53	+1.02 85% 82	+0.76 85% 9	+0.86 81% 9	\$206 47	\$380 26	
<b>VLYP316</b> USA16295688 VLYM527	<b>LAWSONS PROPHET P316</b> <sup>PV</sup> HBR	+16 58% 95	+5.7 78% 20	+5.5 69% 24	-2.4 93% 80	+3.3 96% 34	+58 94% 20	+89 94% 59	+106 91% 77	+62 87% 95	+18 79% 45	+0.3 90% 96	-4.2 58% 60	+69 81% 45	+10.5 81% 11	-4.1 81% 99	-3.9 82% 94	+1.6 76% 5	+3.9 82% 15	+0.39 78% 69	+30 93% 16	+0.62 90% 11	+0.70 90% 4	+0.80 85% 4	\$279 1	\$404 12	
<b>NMMD78</b> USA14237157 NMMY119	<b>MILLAH MURRAH EQUATOR D78</b> HBR	+53 68% 39	-0.9 96% 75	+6.4 89% 16	-9.1 99% 4	+5.0 99% 72	+62 98% 9	+111 98% 8	+158 98% 3	+185 97% 1	+18 98% 41	+2.1 98% 50	-4.1 80% 63	+90 96% 5	+1.9 95% 92	-1.8 96% 84	-3.5 96% 92	+1.0 94% 20	+0.1 95% 94	-0.99 89% 1	+22 98% 43	+0.82 95% 45	+0.94 95% 41	+1.06 92% 60	\$157 89	\$356 45	
<b>NMMH250</b> NMME78 NMME120	<b>MILLAH MURRAH HERCULES</b> HBR	+69 62% 16	-3.1 86% 86	+3.1 73% 51	-2.9 98% 73	+6.0 98% 87	+42 97% 85	+76 97% 90	+107 97% 75	+95 94% 61	+12 94% 85	+2.5 95% 36	-4.7 65% 48	+61 92% 69	+3.1 91% 85	-1.4 90% 77	-0.6 91% 54	+0.4 87% 54	+2.4 92% 44	+0.15 84% 43	+18 91% 59	+0.92 89% 65	+1.14 89% 84	+1.08 84% 66	\$153 90	\$273 91	
<b>NMMG18</b> NZE12170004408 NMMD85	<b>MILLAH MURRAH HIGHLANDER</b> HBR	+16 62% 95	-1.4 84% 78	-3.8 73% 95	-3.2 97% 69	+4.4 96% 59	+49 94% 60	+87 94% 64	+110 93% 68	+88 91% 71	+20 87% 27	+4.1 90% 5	-2.8 65% 87	+77 91% 22	+10.4 90% 12	-3.3 90% 97	-1.7 91% 73	+2.1 84% 1	-0.2 92% 97	-0.11 84% 18	+12 91% 83	+0.80 84% 40	+0.94 84% 41	+1.02 80% 47	\$173 79	\$286 87	
<b>NMMK35</b> NZE469 NMMG41	<b>MILLAH MURRAH KINGDOM K35</b> HBR	+37 73% 67	-12.2 96% 99	-7.4 89% 99	-2.1 99% 83	+8.8 99% 99	+54 98% 33	+99 98% 29	+137 98% 16	+148 98% 4	+12 98% 87	+0.9 98% 88	-5.1 81% 38	+62 96% 65	+7.6 95% 34	+0.0 95% 46	+0.1 95% 41	+1.1 93% 16	-1.1 95% 99	-0.74 89% 1	+27 98% 26	+0.82 96% 45	+1.28 96% 96	+1.20 94% 91	\$128 97	\$260 94	
<b>NMMK42</b> NGMT30 NMMH4	<b>MILLAH MURRAH KLOONEY K42</b> HBR	+4 75% 99	+4.1 97% 33	+1.5 90% 67	-6.1 99% 24	+5.6 99% 82	+47 98% 67	+86 99% 68	+107 98% 74	+89 98% 70	+23 98% 12	+2.2 98% 47	-5.5 82% 29	+64 97% 58	+6.3 95% 50	-1.3 96% 75	-3.1 96% 89	+1.3 94% 10	+1.8 95% 61	-0.05 89% 22	+17 99% 64	+0.84 97% 49	+0.90 97% 32	+1.06 95% 60	\$202 52	\$338 59	
<b>NMML133</b> USA17091363 NMMH49	<b>MILLAH MURRAH LOCH UP L133</b> HBR	+9 73% 99	+4.8 81% 27	+4.4 81% 36	-5.5 99% 33	+4.9 99% 70	+59 98% 17	+100 98% 27	+132 98% 24	+101 98% 52	+26 98% 5	+2.1 98% 98	-1.8 81% 95	+79 96% 19	+1.5 95% 94	-2.2 96% 89	-4.1 96% 95	-0.6 94% 94	+1.8 95% 61	-0.14 89% 15	+32 98% 12	+0.70 97% 21	+1.08 97% 74	+1.16 96% 85	\$167 83	\$307 79	
<b>NJWH283</b> NJWF189 NJWE51	<b>MILWILLAH ELSOM H283</b> <sup>PV</sup> HBR	+32 67% 75	+1.1 83% 61	-5.7 71% 97	-2.3 97% 81	+3.9 97% 48	+47 96% 69	+83 96% 76	+122 95% 42	+110 92% 37	+22 93% 17	+1.8 94% 62	-1.6 63% 96	+75 92% 26	+9.3 91% 19	-2.4 91% 91	-2.6 91% 85	+1.6 86% 5	+1.5 92% 69	+0.40 85% 70	+19 88% 57	+0.76 89% 32	+0.86 90% 23	+1.04 85% 53	\$155 90	\$276 91	
<b>CSWP036</b> USA17236055 CSWL123	<b>MURDEDUKE BLACK PEARL</b> HBR	+19 53% 92	+2.0 79% 53	+3.9 70% 42	-8.6 96% 5	+4.7 96% 66	+50 94% 56	+93 94% 47	+135 93% 19	+120 90% 24	+20 83% 30	+3.3 89% 15	-6.9 67% 9	+59 91% 72	+1.2 90% 95	+0.5 90% 35	-1.0 91% 61	-1.1 82% 99	+6.3 92% 1	+0.67 85% 89	+14 93% 77	+0.86 92% 53	+1.18 93% 89	+1.22 89% 93	\$212 39	\$380 26	
<b>CSWH211</b> VTME343 CSWE175	<b>MURDEDUKE HUSSAR H211</b> <sup>PV</sup> HBR	+7 65% 99	+1.1 83% 61	+4.9 75% 30	-8.7 97% 5	+6.1 96% 89	+60 95% 14	+118 95% 3	+152 95% 4	+166 93% 2	+12 91% 83	+4.0 94% 6	-5.3 67% 34	+82 91% 14	+1.8 90% 92	-2.0 90% 87	-5.5 91% 99	+0.9 85% 25	-0.6 92% 99	-0.72 84% 1	+29 95% 18	+0.54 95% 5	+0.86 95% 23	+1.02 93% 47	\$162 86	\$361 40	
<b>CSWK428</b> VTME343 CSWE175	<b>MURDEDUKE KICKING K428</b> <sup>PV</sup> HBR	+31 74% 77	+7.4 87% 9	+8.9 76% 3	-7.7 98% 10	+1.9 98% 12	+48 97% 65	+93 97% 47	+115 97% 59	+88 95% 72	+24 94% 8	+3.4 97% 13	-5.6 69% 27	+66 93% 55	+2.0 92% 91	-0.4 89% 55	-2.9 92% 88	+0.4 87% 54	+0.7 93% 87	-0.11 86% 18	+42 97% 3	+0.88 97% 57	+1.00 97% 57	+1.20 95% 91	\$189 66	\$345 54	
<b>Breed Average EBVs</b>		<b>+47</b>	<b>+1.7</b>	<b>+2.7</b>	<b>-4.4</b>	<b>+4.0</b>	<b>+51</b>	<b>+92</b>	<b>+119</b>	<b>+102</b>	<b>+17</b>	<b>+2.2</b>	<b>-4.6</b>	<b>+67</b>	<b>+6.4</b>	<b>-0.1</b>	<b>-0.3</b>	<b>+0.5</b>	<b>+2.3</b>	<b>+0.22</b>	<b>+21</b>	<b>+0.84</b>	<b>+0.97</b>	<b>+1.02</b>	<b>+200</b>	<b>+345</b>	

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Ident	Name																										
Sire Dam	Reg.	ImmuneDEX IMD	Calv-Ease		Birth		Growth			Maternal		Fert		Carcase					Feed	Temp	Structural		Selection Index				
			Dir	Dtrs	GL	BW	200	400	600	MCW	Milk	SS	DC	CW	EMA	Rib	P8	RBY	IMF	NFI-F	Doc	Claw	Angle	Leg	\$A	\$A-L	
<b>NURM208</b> SMPG357 NURK45	<b>MURRAY GENESIS M208</b> <sup>PV</sup> HBR	+39 73% 64	+1.0 79% 62	+5.8 69% 21	-5.9 93% 27	+4.7 94% 66	+50 93% 52	+96 92% 29	+129 93% 29	+109 88% 38	+20 87% 30	+3.8 86% 8	-6.1 64% 19	+82 89% 14	+16.4 88% 1	-0.6 86% 60	-2.7 89% 86	+2.1 83% 1	+0.9 90% 83	+1.38 82% 99	+6 88% 94	+0.92 91% 65	+1.02 90% 61	+0.70 87% 1	\$232 19	\$392 18	
<b>NURN70</b> NORK522 NURJ53	<b>MURRAY KODAK N70</b> <sup>PV</sup> HBR	+57 53% 33	+1.5 80% 58	+3.8 68% 43	-6.7 98% 18	+4.4 97% 59	+57 96% 22	+102 96% 21	+137 96% 16	+140 90% 8	+15 87% 66	+5.2 96% 1	-6.3 62% 16	+79 90% 18	+9.4 89% 18	-1.2 89% 73	-1.4 90% 68	+0.9 82% 25	+3.7 91% 17	-0.34 84% 6	+14 96% 77	+0.94 94% 69	+0.88 94% 28	+0.92 90% 18	\$234 17	\$420 6	
<b>NURM204</b> USA16956101 NURJ43	<b>MURRAY PROCEED M204</b> <sup>PV</sup> HBR	+46 77% 51	-5.6 81% 93	+7.2 70% 11	-4.5 96% 48	+4.3 96% 57	+62 94% 10	+106 94% 14	+143 94% 10	+132 90% 12	+18 85% 39	+2.2 90% 47	-3.0 63% 84	+90 91% 6	+13.4 90% 3	-4.8 87% 99	-5.7 91% 99	+0.8 86% 30	+6.7 91% 1	+0.09 85% 36	+24 93% 34	+0.94 90% 69	+0.76 90% 9	+0.88 87% 11	\$233 19	\$385 22	
<b>NURP54</b> USA16350631 NURM13	<b>MURRAY TWINHEARTS P54</b> <sup>PV</sup> HBR	+16 51% 95	-0.2 75% 71	+4.1 64% 39	-5.9 93% 27	+6.7 91% 94	+70 90% 2	+126 89% 1	+166 89% 1	+159 86% 2	+23 80% 12	+1.8 82% 62	-4.2 59% 60	+102 86% 1	+8.0 85% 30	-2.3 85% 90	-4.0 86% 95	+1.0 77% 20	+3.0 88% 30	+0.19 78% 47	+18 86% 60	+0.86 87% 53	+1.20 87% 91	+0.88 83% 11	\$248 9	\$440 3	
<b>SFNL21</b> NZE10322010609 SFNH65	<b>NAMPARA LIBERTY L21</b> <sup>SV</sup> HBR	+58 70% 31	-5.3 87% 92	-3.3 73% 93	-6.4 98% 28	+8.6 98% 99	+67 97% 4	+111 97% 8	+147 97% 7	+165 95% 2	+18 94% 41	+2.9 96% 24	-0.8 63% 98	+78 93% 20	+8.1 92% 29	-2.0 89% 87	-0.7 92% 56	+1.9 87% 2	-2.5 93% 99	-0.63 86% 2	+24 94% 35	+0.86 92% 53	+0.88 92% 28	+1.00 88% 40	\$140 95	\$294 85	
<b>SKOJ6</b> VTME343 NZCE115	<b>NEWLYN PARK EMPEROR J6</b> <sup>PV</sup> HBR	+12 64% 98	-7.4 78% 96	-4.4 70% 96	-7.2 93% 13	+7.5 92% 98	+64 91% 6	+111 90% 8	+143 91% 10	+160 88% 2	+10 83% 93	+1.4 85% 75	-4.4 64% 55	+80 87% 16	+7.8 86% 32	-1.1 86% 71	-1.2 87% 65	+1.4 80% 8	+0.3 88% 92	-0.71 79% 1	+16 85% 69	+1.06 85% 87	+0.80 85% 14	+0.78 81% 3	\$182 72	\$342 56	
<b>NZE21095018</b> HIOE7 NZE21095112H49	<b>NGAPUTAH I P206</b> <sup>PV</sup> HBR	+81 55% 5	+9.7 79% 2	+5.1 70% 28	-1.5 93% 88	+0.0 96% 2	+42 95% 87	+84 95% 74	+97 94% 89	+73 89% 88	+28 82% 2	+2.6 93% 32	-7.4 67% 6	+52 89% 87	+5.9 89% 55	-0.4 88% 55	-2.8 89% 87	+1.2 81% 13	+4.2 90% 11	+0.19 82% 47	+18 87% 62	+0.96 80% 73	+1.04 81% 66	+1.12 78% 77	\$243 12	\$389 20	
<b>USA16981588</b> USA16381311 USA16408070	<b>PA FULL POWER 1208</b> <sup>PV</sup> HBR	+63 76% 24	-5.6 95% 93	-4.5 86% 96	-4.9 99% 42	+3.8 98% 45	+53 98% 41	+99 98% 29	+120 98% 47	+76 98% 86	+13 98% 78	+2.1 98% 50	-2.7 73% 88	+70 96% 43	+13.0 94% 3	-1.9 94% 85	+0.1 94% 41	+1.2 92% 13	+3.2 95% 26	+0.92 87% 97	+21 98% 46	+1.22 98% 97	+0.94 98% 41	+0.68 91% 1	\$228 23	\$332 64	
<b>HKFE27</b> VTMA149 FAFC1	<b>PARINGA IRON ORE E27</b> <sup>PV</sup> HBR	+88 66% 2	+6.4 71% 15	+0.7 66% 74	-7.0 97% 15	+2.0 96% 13	+35 95% 97	+67 95% 97	+90 94% 94	+96 91% 59	+13 92% 81	+1.9 98% 52	-7.2 65% 7	+66 91% 52	+6.9 90% 42	+1.5 90% 17	+2.5 91% 11	+1.2 84% 13	+1.7 92% 63	+0.32 84% 62	+31 89% 14	+0.88 84% 57	+0.90 84% 32	+0.98 79% 34	\$186 68	\$335 62	
<b>SMPG357</b> VTMB1 SMPD245	<b>PATHFINDER GENESIS G357</b> <sup>PV</sup> HBR	+41 65% 60	+0.1 97% 69	+4.2 89% 38	-7.2 99% 13	+6.7 99% 94	+61 99% 10	+108 99% 11	+148 99% 7	+138 98% 9	+25 98% 5	+4.4 85% 4	-5.8 97% 24	+95 96% 3	+13.4 96% 3	+0.4 96% 37	-0.8 96% 58	+1.5 95% 6	-0.1 95% 96	+0.61 90% 86	+27 98% 24	+0.88 98% 57	+1.04 98% 66	+0.80 96% 4	\$226 25	\$404 12	
<b>SMPK22</b> SMPG357 SMPH756	<b>PATHFINDER COMPLETE K22</b> <sup>SV</sup> HBR	+73 73% 12	+10.3 93% 1	+9.0 79% 3	-9.2 99% 3	+0.9 98% 5	+40 98% 90	+74 98% 92	+95 98% 91	+47 97% 99	+27 97% 3	+3.0 98% 21	-5.6 74% 27	+52 95% 88	+6.3 94% 50	+3.5 94% 3	+5.3 94% 2	+0.3 93% 60	+2.1 94% 52	+0.51 87% 80	+26 97% 26	+0.50 96% 3	+0.82 96% 16	+0.66 94% 1	\$232 20	\$358 43	
<b>SMPM651</b> VTMG67 SMPH66	<b>PATHFINDER MASTERPIECE</b> HBR	+31 60% 77	+3.0 80% 44	+4.5 71% 35	-6.0 92% 26	+5.2 95% 76	+57 93% 22	+106 92% 15	+131 92% 24	+138 88% 9	+21 87% 23	+3.7 88% 9	-7.7 63% 4	+54 88% 83	+9.3 86% 19	-1.9 86% 85	-3.8 87% 94	+1.7 80% 4	+1.4 88% 72	-0.27 80% 9	+33 82% 11	+0.96 77% 73	+1.24 77% 94	+1.20 74% 91	\$235 17	\$426 5	
<b>SMPM558</b> VTMG67 SMPH458	<b>PATHFINDER MAXIMUS M558</b> <sup>PV</sup> HBR	+25 75% 85	-1.9 84% 81	+2.6 74% 56	-6.7 96% 18	+6.0 97% 87	+60 95% 13	+99 95% 30	+129 95% 29	+139 92% 8	+20 92% 25	+4.7 93% 2	-8.4 66% 2	+53 91% 86	+10.8 90% 10	-2.6 89% 93	-2.5 91% 84	+0.9 87% 25	+3.6 91% 19	-0.35 84% 6	+49 86% 1	+0.92 78% 65	+1.08 79% 74	+0.84 76% 7	\$240 13	\$420 6	
<b>Breed Average EBVs</b>		<b>+47</b>	<b>+1.7</b>	<b>+2.7</b>	<b>-4.4</b>	<b>+4.0</b>	<b>+51</b>	<b>+92</b>	<b>+119</b>	<b>+102</b>	<b>+17</b>	<b>+2.2</b>	<b>-4.6</b>	<b>+67</b>	<b>+6.4</b>	<b>-0.1</b>	<b>-0.3</b>	<b>+0.5</b>	<b>+2.3</b>	<b>+0.22</b>	<b>+21</b>	<b>+0.84</b>	<b>+0.97</b>	<b>+1.02</b>	<b>+200</b>	<b>+345</b>	



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Ident	Name																										
Sire Dam	Reg.	ImmuneDEX IMD	Calv-Ease		Birth		Growth			Maternal			Fert		Carcase					Feed	Temp	Structural			Selection Index		
			Dir	Dtrs	GL	BW	200	400	600	MCW	Milk	SS	DC	CW	EMA	Rib	P8	RBY	IMF	NFI-F	Doc	Claw	Angle	Leg	\$A	\$A-L	
<b>SMPN56</b> HIOG18 SMPL179	<b>PATHFINDER NUCLEUS N56 SV</b> HBR	+34	+3.5	+2.0	-3.3	+5.3	+60	+106	+139	+137	+16	+4.6	-7.3	+76	+13.5	+0.6	+0.7	+1.2	+1.5	+0.39	+8	+0.76	+0.78	+0.84	\$256	\$448	
		50%	80%	69%	96%	97%	95%	95%	90%	89%	93%	63%	91%	90%	90%	91%	82%	92%	85%	89%	86%	87%	81%				
		72	39	62	68	78	14	14	13	9	60	3	6	25	3	33	31	13	69	69	91	32	11	7	6	2	
<b>NZE41-97</b> NZE53195 NZE63988	<b>PINEBANK WAIGROUP 41/97 #</b> HBR	+61	+3.6	-3.6	-3.5	+3.6	+37	+64	+77	+52	+19	+1.0	-3.8	+18	+5.3	+1.0	+0.1	+0.9	+1.1	-0.06	+33	+0.32	+0.94	+1.00	\$155	\$245	
		69%	96%	90%	98%	99%	98%	98%	98%	98%	98%	97%	88%	97%	96%	96%	96%	95%	96%	90%	93%	87%	87%	82%			
		27	38	94	65	41	95	98	99	98	37	86	70	99	62	25	41	25	79	21	11	1	41	40	89	96	
<b>NORE11</b> NGMY145 VLYY5	<b>RENNYLEA EDMUND E11 PV</b> HBR	+24	+8.7	+1.3	-6.8	+1.2	+34	+64	+84	+55	+16	+1.9	-7.5	+52	+3.9	+3.3	+1.4	-0.1	+4.0	+0.77	+23	+0.56	+1.04	+1.10	\$202	\$324	
		79%	99%	97%	99%	99%	99%	99%	99%	99%	99%	99%	94%	98%	98%	98%	98%	98%	98%	96%	99%	99%	99%	99%			
		87	4	69	17	6	98	98	97	97	55	58	5	88	78	4	21	81	13	93	38	6	66	72	51	70	
<b>NORG255</b> BNAD145 NORC490	<b>RENNYLEA G255 PV</b> APR	+63	-10.5	-5.9	-3.0	+4.6	+49	+94	+128	+126	+21	+0.7	-3.4	+89	+7.1	-0.7	-3.8	+0.8	+5.0	-0.02	+9	+1.18	+0.90	+0.84	\$161	\$277	
		81%	81%	79%	98%	98%	98%	98%	98%	98%	98%	97%	82%	96%	95%	96%	96%	93%	95%	90%	97%	95%	95%	93%			
		24	99	98	72	64	57	45	31	17	23	91	78	6	40	63	94	30	5	25	89	96	32	7	87	90	
<b>NORH708</b> NORC511 NORE176	<b>RENNYLEA H708 PV</b> APR	+96	-7.4	+2.8	+1.2	+4.7	+47	+101	+129	+130	+12	+2.5	-3.2	+72	+12.4	-3.8	-6.5	+2.2	+7.1	+0.69	+21	+0.72	+0.68	+0.90	\$217	\$361	
		86%	93%	84%	98%	98%	98%	98%	98%	97%	97%	97%	80%	96%	95%	95%	95%	93%	95%	92%	98%	98%	98%	97%			
		1	96	54	99	66	68	23	29	14	83	36	81	35	4	98	99	1	1	90	48	24	3	14	34	41	
<b>NORK163</b> NORH106 NORE176	<b>RENNYLEA K163 PV</b> APR	+29	+5.1	-7.7	-3.7	+2.5	+39	+73	+94	+65	+10	+0.7	-4.7	+61	+18.5	-0.1	-1.0	+2.6	+2.4	+0.17	+18	+0.66	+0.70	+1.00	\$233	\$342	
		80%	89%	79%	98%	98%	98%	98%	97%	97%	96%	95%	77%	94%	94%	94%	94%	91%	94%	88%	91%	90%	90%	87%			
		80	25	99	61	20	92	93	92	93	94	91	48	69	1	48	61	1	44	45	58	15	4	40	19	56	
<b>NORK835</b> NORG420 NORH514	<b>RENNYLEA K835 PV</b> APR	+18	-3.9	-4.3	-2.0	+6.3	+47	+87	+111	+95	+11	+3.1	-3.8	+53	+10.1	+1.0	-1.1	+0.4	+4.2	-0.13	+10	+0.64	+1.08	+1.12	\$184	\$302	
		67%	83%	70%	98%	95%	96%	95%	95%	91%	89%	90%	65%	90%	89%	89%	89%	86%	90%	81%	92%	89%	89%	86%			
		93	89	96	84	91	67	66	66	62	89	19	70	85	13	25	63	54	11	16	88	13	74	77	70	81	
<b>NORK522</b> NORE11 NORF810	<b>RENNYLEA KODAK K522 SV</b> HBR	+47	+8.8	+9.0	-4.8	+1.4	+45	+83	+109	+111	+10	+4.6	-6.9	+51	+3.2	+3.0	+1.4	-0.3	+3.9	+0.24	+7	+0.62	+0.82	+0.96	\$205	\$385	
		71%	94%	83%	99%	99%	98%	98%	98%	97%	97%	98%	74%	95%	93%	94%	94%	92%	94%	88%	96%	97%	97%	95%			
		50	4	3	43	8	75	75	70	35	91	3	9	89	84	5	21	87	15	53	94	11	16	28	48	22	
<b>NORL508</b> USA17366506 NORH414	<b>RENNYLEA L508 PV</b> HBR	+75	+1.0	+8.0	-5.9	+2.6	+46	+85	+117	+92	+26	+1.4	-7.0	+56	+5.0	+1.0	+0.0	-0.1	+5.1	+0.67	+16	+0.68	+0.84	+0.88	\$232	\$379	
		55%	84%	78%	99%	99%	98%	98%	98%	98%	98%	81%	96%	95%	95%	95%	93%	95%	89%	99%	99%	98%	98%	97%			
		10	62	6	27	21	74	70	54	65	4	75	9	81	66	25	43	81	4	89	69	18	20	11	19	26	
<b>NORL683</b> NORE11 NORJ631	<b>RENNYLEA L683 PV</b> APR	+73	+1.9	+1.7	-4.4	+5.0	+55	+95	+119	+107	+5	+2.3	-5.9	+79	+4.7	+0.7	-1.2	+0.8	+2.3	+0.61	+24	+0.70	+0.88	+1.00	\$223	\$378	
		71%	84%	74%	98%	97%	96%	96%	96%	94%	92%	95%	69%	91%	90%	88%	91%	85%	91%	85%	95%	92%	92%	89%			
		12	54	65	50	72	31	40	49	42	99	43	22	18	70	31	65	30	47	86	35	21	28	40	27	27	
<b>NORM1078</b> NORH708 NORF563	<b>RENNYLEA M1078 SV</b> APR	+75	-5.6	-0.1	-1.8	+3.3	+41	+82	+102	+101	+11	+1.8	-4.6	+59	+10.3	-2.0	-5.3	+1.0	+7.8	+0.74	+11	+0.92	+1.02	+1.14	\$199	\$322	
		55%	79%	68%	97%	96%	95%	95%	95%	93%	89%	93%	65%	92%	90%	90%	91%	83%	92%	85%	94%	91%	92%	89%			
		10	93	80	86	34	89	77	83	51	89	62	50	74	12	87	98	20	1	92	86	65	61	81	55	71	
<b>NORP987</b> NORM763 NORM1184	<b>RENNYLEA P987 PV</b> APR	+60	+10.2	+9.5	-7.9	+1.4	+50	+97	+123	+128	+9	+0.3	-2.7	+73	+5.7	+3.2	+2.1	-1.0	+7.7	+0.96	+6	+0.90	+0.92	+1.06	\$224	\$408	
		52%	74%	64%	97%	97%	96%	95%	95%	92%	86%	92%	61%	89%	88%	88%	88%	80%	90%	80%	95%	91%	91%	86%			
		28	1	2	8	8	53	34	40	15	94	96	88	34	57	4	14	98	1	98	95	61	37	60	27	10	
<b>NORQ1081</b> NORH708 NORL841	<b>RENNYLEA Q1081 PV</b> APR	+82	-2.7	+5.0	-3.6	+4.0	+50	+90	+117	+104	+12	+3.4	-5.6	+50	+10.0	+0.2	-1.2	+0.7	+6.4	+0.78	+13	+0.86	+0.88	+0.88	\$241	\$387	
		57%	76%	66%	92%	93%	92%	91%	92%	87%	80%	87%	58%	81%	82%	82%	82%	77%	83%	80%	89%	86%	87%	82%			
		4	84	29	63	50	52	55	54	46	84	13	27	91	14	41	65	35	1	94	80	53	28	11	13	21	
<b>Breed Average EBVs</b>		<b>+47</b>	<b>+1.7</b>	<b>+2.7</b>	<b>-4.4</b>	<b>+4.0</b>	<b>+51</b>	<b>+92</b>	<b>+119</b>	<b>+102</b>	<b>+17</b>	<b>+2.2</b>	<b>-4.6</b>	<b>+67</b>	<b>+6.4</b>	<b>-0.1</b>	<b>-0.3</b>	<b>+0.5</b>	<b>+2.3</b>	<b>+0.22</b>	<b>+21</b>	<b>+0.84</b>	<b>+0.97</b>	<b>+1.02</b>	<b>+200</b>	<b>+345</b>	

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Ident	Name																										
Sire Dam	Reg.	ImmuneDEX IMD	Calv-Ease		Birth		Growth			Maternal			Fert			Carcase				Feed	Temp	Structural		Selection Index			
			Dir	Dtrs	GL	BW	200	400	600	MCW	Milk	SS	DC	CW	EMA	Rib	P8	RBY	IMF	NFI-F	Doc	Claw	Angle	Leg	\$A	\$A-L	
<b>NORQ213</b> NORK907 NORL110	<b>RENNYLEA Q213</b> <sup>PV</sup> APR	+28 53% 81	+9.4 78% 2	+6.9 67% 12	-7.1 97% 14	+1.2 97% 6	+66 97% 4	+120 96% 2	+152 96% 4	+96 92% 59	+24 85% 7	+0.7 94% 91	-9.7 58% 1	+103 89% 1	+8.7 87% 23	+0.4 86% 37	+0.0 87% 43	+0.2 79% 66	+3.1 89% 28	+0.70 80% 91	+27 96% 24	+0.54 92% 5	+0.68 92% 3	+0.84 88% 7	\$339 1	\$529 1	
<b>NORR992</b> NORN542 NORM1034	<b>RENNYLEA R992</b> <sup>PV</sup> APR	+32 50% 75	+5.0 68% 25	+6.3 59% 17	+2.0 95% 99	+1.4 95% 8	+44 93% 81	+84 92% 74	+116 92% 56	+86 87% 75	+27 79% 3	+1.7 90% 65	-5.8 51% 24	+69 80% 44	+10.9 79% 9	+1.6 80% 16	+2.0 80% 15	-0.1 74% 81	+6.2 81% 1	+1.16 67% 99	+25 92% 30	+0.60 74% 9	+0.78 75% 11	+0.82 72% 5	\$252 7	\$403 13	
<b>USA16396573</b> USA0035 USA15688516	<b>S A V CAMARO 9272</b> <sup>SV</sup> HBR	+35 66% 70	+3.8 86% 36	+0.6 73% 75	-6.7 97% 18	+3.6 97% 41	+49 96% 59	+79 96% 84	+99 96% 87	+103 92% 48	+9 94% 96	+1.2 91% 81	-6.1 62% 19	+42 93% 97	+0.4 91% 97	-0.5 91% 58	-2.4 91% 82	+0.9 84% 25	+1.6 92% 66	+1.09 84% 99	+20 86% 53	+1.08 86% 89	+0.84 86% 20	+0.80 78% 4	\$179 75	\$322 71	
<b>APBK11</b> VTMB1 APBF2	<b>SHACORRAHDALU KINETIC K11</b> HBR	+20 51% 91	+10.0 78% 2	+10.1 70% 1	-9.1 93% 4	+0.4 92% 3	+49 91% 58	+88 90% 61	+103 91% 81	+95 87% 61	+11 83% 91	+4.5 84% 3	-6.6 64% 12	+64 86% 59	+10.3 84% 12	+3.4 84% 3	+2.2 85% 13	+0.8 77% 30	+2.0 86% 55	+0.84 78% 95	+1 86% 99	+0.96 82% 73	+1.16 81% 87	+1.10 78% 72	\$241 13	\$415 8	
<b>NZE19507013</b> VTME343 NZE19507111G183	<b>STORTH OAKS JACK J7</b> <sup>SV</sup> HBR	+14 69% 97	+4.9 89% 26	+7.6 79% 8	-4.8 98% 43	+4.5 98% 62	+61 97% 12	+113 97% 6	+152 97% 4	+145 95% 6	+17 94% 48	+3.5 96% 12	-0.9 70% 98	+80 93% 16	+8.1 92% 29	-0.2 92% 51	-2.9 93% 88	-0.3 90% 87	+2.4 93% 44	-0.01 86% 26	+19 96% 55	+0.98 93% 76	+0.98 93% 52	+0.90 89% 14	\$178 76	\$359 42	
<b>VSNG34</b> VTMB1 VSNE22	<b>STRATHEWEN BERKLEY G34</b> <sup>PV</sup> HBR	+40 70% 62	+7.0 84% 11	+7.6 75% 8	-6.4 95% 21	+3.6 94% 41	+57 93% 24	+108 92% 12	+142 93% 10	+148 91% 5	+19 89% 33	+2.3 87% 43	-7.2 68% 7	+82 91% 13	+5.6 90% 59	+0.9 89% 27	+0.0 90% 43	+0.3 86% 60	+1.7 91% 63	-0.09 85% 19	+30 89% 16	+1.12 88% 92	+1.28 88% 96	+1.10 84% 72	\$229 22	\$439 3	
<b>USA17236055</b> USA15354674 USA16214508	<b>SYDGEN BLACK PEARL 2006</b> <sup>PV</sup> HBR	+8 76% 99	+2.0 98% 53	+7.8 93% 7	-7.0 99% 15	+3.2 99% 32	+51 99% 47	+85 99% 69	+123 99% 40	+87 98% 73	+21 99% 19	+1.6 99% 69	-3.5 89% 76	+73 98% 33	+8.4 97% 26	+0.4 97% 37	+0.0 97% 43	+0.4 96% 54	+2.6 97% 39	+0.27 92% 56	+15 99% 72	+1.02 99% 82	+1.20 99% 91	+1.14 98% 81	\$211 41	\$343 55	
<b>VTMA149</b> VTMX60 VTMU338	<b>TE MANIA ADA A149</b> <sup>PV</sup> HBR	+39 64% 64	-6.9 97% 95	-1.7 91% 88	-3.2 99% 69	+6.6 99% 93	+53 99% 38	+97 99% 34	+130 99% 27	+171 98% 1	+10 98% 93	+2.0 98% 54	-2.0 86% 94	+82 97% 13	+3.0 96% 85	-3.3 97% 97	-2.0 97% 77	+1.4 96% 8	-0.4 96% 98	-0.68 91% 1	+27 97% 25	+0.88 97% 57	+0.74 97% 7	+0.78 96% 3	\$95 99	\$250 96	
<b>VTMK52</b> USA16295688 VTMH423	<b>TE MANIA KALIBROOK K52</b> <sup>PV</sup> HBR	+45 71% 53	+7.8 78% 7	+5.2 69% 27	-3.0 94% 72	+1.5 95% 8	+52 92% 45	+104 91% 19	+128 87% 30	+102 85% 49	+30 87% 1	+1.7 65% 87	-5.9 86% 22	+71 87% 37	+3.2 84% 84	+0.4 87% 37	+2.2 82% 13	-0.6 88% 94	+5.4 79% 3	+1.49 87% 99	+10 89% 89	+1.18 89% 96	+1.08 89% 74	+1.12 86% 77	\$253 7	\$425 5	
<b>VTMK138</b> USA16295688 VTMH17	<b>TE MANIA KIRBY K138</b> <sup>PV</sup> HBR	+18 68% 93	+0.2 88% 68	+7.7 79% 8	-1.3 99% 90	+4.6 99% 64	+52 98% 43	+90 98% 57	+118 98% 53	+97 98% 58	+18 97% 41	+2.5 98% 36	-9.5 81% 1	+66 96% 54	+5.6 96% 59	+1.3 97% 20	+3.2 94% 7	-1.6 94% 99	+8.4 96% 1	+1.03 88% 98	+14 99% 78	+0.78 99% 36	+0.74 99% 7	+0.94 98% 23	\$276 2	\$441 3	
<b>VTML64</b> VTMJ131 VTMJ1139	<b>TE MANIA LANCASTER L64</b> <sup>PV</sup> HBR	+33 75% 73	+3.8 80% 36	+7.2 74% 11	-9.5 98% 3	+3.1 98% 30	+49 97% 58	+91 97% 54	+119 97% 50	+108 96% 39	+20 95% 25	+1.0 96% 86	-7.2 74% 7	+66 95% 52	+0.2 94% 97	+1.6 92% 16	-2.7 95% 86	+0.0 90% 76	+4.9 95% 5	-0.38 90% 5	+14 96% 77	+0.78 97% 36	+0.98 97% 52	+1.06 96% 60	\$224 26	\$389 20	
<b>VTMN424</b> VTMJ89 VTMJ214	<b>TE MANIA NEBO N424</b> <sup>PV</sup> HBR	+51 51% 43	+9.3 89% 3	+0.3 82% 77	-6.6 98% 19	+4.2 98% 55	+54 98% 36	+101 98% 24	+131 98% 25	+103 97% 48	+29 96% 2	+4.4 97% 4	-4.0 66% 65	+57 96% 77	+6.9 96% 42	-1.1 94% 71	-4.1 96% 95	+0.4 88% 54	+3.9 94% 15	-0.15 83% 15	+46 98% 1	+0.94 98% 69	+0.88 98% 28	+0.96 97% 28	\$212 40	\$365 37	
<b>VTMN1387</b> VTMK138 VTML452	<b>TE MANIA NEON N1387</b> <sup>SV</sup> HBR	+19 50% 92	-0.2 81% 71	+4.3 70% 37	-6.0 98% 26	+3.6 98% 41	+48 97% 64	+87 96% 66	+106 96% 76	+96 94% 60	+18 87% 38	+1.4 95% 75	-8.4 58% 2	+49 89% 92	+2.2 89% 90	-0.1 87% 48	-1.6 89% 71	-1.6 81% 99	+9.0 88% 1	-0.04 83% 23	+25 97% 31	+0.74 96% 28	+0.82 96% 16	+1.00 95% 40	\$233 19	\$384 23	
<b>Breed Average EBVs</b>		<b>+47</b>	<b>+1.7</b>	<b>+2.7</b>	<b>-4.4</b>	<b>+4.0</b>	<b>+51</b>	<b>+92</b>	<b>+119</b>	<b>+102</b>	<b>+17</b>	<b>+2.2</b>	<b>-4.6</b>	<b>+67</b>	<b>+6.4</b>	<b>-0.1</b>	<b>-0.3</b>	<b>+0.5</b>	<b>+2.3</b>	<b>+0.22</b>	<b>+21</b>	<b>+0.84</b>	<b>+0.97</b>	<b>+1.02</b>	<b>+200</b>	<b>+345</b>	

# Angus Australia - ImmuneDEX Research Breeding Values

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Ident	Name		Calv-Ease		Birth		Growth			Maternal			Fert		Carcase					Feed	Temp	Structural			Selection Index	
Sire Dam	Reg.	ImmuneDEX IMD	Dir	Dtrs	GL	BW	200	400	600	MCW	Milk	SS	DC	CW	EMA	Rib	P8	RBY	IMF	NFI-F	Doc	Claw	Angle	Leg	\$A	\$A-L
<b>VTMP888</b> VTMK226 VTMH423	<b>TE MANIA PESO P888</b> <sup>PV</sup> HBR	+53 56% 39	+8.3 85% 5	+6.2 75% 18	-5.2 98% 37	+1.9 97% 12	+56 97% 26	+113 97% 6	+143 97% 10	+118 95% 26	+26 92% 4	+2.1 92% 50	-6.0 62% 20	+90 93% 5	+5.3 92% 62	-0.5 91% 58	+1.1 92% 25	+0.6 84% 41	+1.4 92% 72	-0.02 82% 25	+23 95% 38	+0.84 94% 49	+1.12 94% 82	+0.98 91% 34	\$249 8	\$436 3
<b>DBLL292</b> USA16295688 VSNF04	<b>TOPBOS LEADING EDGE L292</b> <sup>PV</sup> HBR	+26 74% 84	+1.6 88% 57	+7.4 74% 9	-5.7 98% 30	+6.6 98% 93	+73 97% 1	+126 97% 1	+164 97% 1	+147 95% 5	+22 95% 14	+1.4 97% 75	-3.9 69% 67	+83 93% 12	+4.1 92% 76	-2.8 90% 94	-5.2 92% 98	+0.2 87% 66	+1.4 92% 72	+0.06 86% 33	+21 97% 49	+0.94 92% 69	+0.76 92% 9	+0.78 88% 3	\$225 26	\$410 9
<b>NZE17691009</b> NZE17691003Y167 NZE17691195Q263	<b>TURIHAUA CRUMP E5</b> <sup>SV</sup> HBR	+77 63% 8	-1.8 93% 80	-1.8 86% 88	-5.8 97% 28	+3.3 98% 34	+28 98% 99	+59 98% 99	+84 98% 97	+94 97% 63	+14 97% 71	+1.3 97% 78	-9.8 89% 1	+16 95% 99	-0.1 95% 98	+5.2 95% 1	+3.4 95% 6	-0.2 94% 84	+1.4 95% 72	+0.48 88% 77	+29 90% 18	+0.62 84% 11	+1.20 84% 91	+1.18 79% 89	\$131 97	\$261 94
<b>BSCF73</b> USA15688392 BSCZ66	<b>WAITARA PIO FEDERAL F73</b> <sup>SV</sup> HBR	+50 76% 44	+4.6 90% 29	+5.0 77% 29	-4.3 98% 52	+1.6 98% 9	+56 97% 25	+104 98% 18	+135 97% 18	+93 96% 65	+25 96% 6	+2.6 97% 32	-2.8 70% 87	+88 95% 7	+5.7 94% 57	-0.3 94% 53	+0.1 94% 41	+0.2 89% 66	+1.5 94% 69	+0.30 88% 60	+12 96% 84	+1.36 95% 99	+1.20 95% 91	+0.96 92% 28	\$215 36	\$362 39
<b>QKBP29</b> SMPG357 QKBM01	<b>WARRAWEE PATROL P29</b> <sup>PV</sup> HBR	+58 64% 31	+6.7 79% 13	+10.9 70% 1	-12.0 96% 1	+3.0 94% 28	+55 93% 31	+104 91% 18	+139 90% 13	+132 88% 13	+19 82% 34	+2.2 87% 47	-9.3 64% 1	+99 86% 2	+9.1 84% 20	+3.4 84% 3	+1.8 85% 17	+0.4 78% 54	+1.8 86% 61	+0.74 78% 92	+28 88% 21	+0.84 77% 49	+1.22 78% 93	+1.00 73% 40	\$267 3	\$477 1
<b>NWPG188</b> USA15462648 NWPE295	<b>WATTLETOP FRANKLIN G188</b> <sup>SV</sup> HBR	+49 65% 46	+4.0 96% 34	+5.9 87% 20	-4.4 99% 50	+2.3 99% 17	+64 98% 6	+109 98% 10	+141 98% 12	+116 98% 28	+25 97% 7	+3.8 98% 8	-3.4 77% 78	+82 96% 13	+1.3 95% 94	-1.5 95% 79	-2.2 95% 80	-0.1 93% 81	+0.5 94% 90	-1.20 88% 1	+33 97% 10	+1.10 96% 91	+0.96 96% 47	+0.94 94% 23	\$192 63	\$355 45
<b>CWDJ17</b> BNAD145 CWDJ14	<b>WEATHERLY JAMES J17</b> <sup>SV</sup> HBR	+36 74% 68	-3.9 79% 89	-3.5 72% 94	-3.3 93% 68	+6.0 93% 87	+49 92% 60	+83 92% 76	+109 93% 71	+117 89% 27	+2 87% 99	+1.5 86% 72	-4.3 67% 58	+65 90% 57	+8.5 89% 25	+1.2 89% 22	+2.3 90% 13	+1.1 85% 16	+3.4 91% 22	-0.02 84% 25	+5 87% 96	+0.86 87% 53	+1.24 87% 94	+1.04 81% 53	\$197 57	\$331 64
<b>CWDM5</b> SMPG357 CWDJ15	<b>WEATHERLY MOXY M5</b> <sup>SV</sup> HBR	+44 52% 55	+3.6 79% 38	+7.6 69% 8	-4.7 93% 45	+4.0 95% 50	+56 94% 28	+98 93% 33	+131 94% 26	+113 92% 33	+28 89% 3	+2.6 89% 32	-5.6 60% 27	+89 85% 6	+7.2 83% 39	+2.3 84% 9	-0.6 84% 54	+0.6 79% 41	+2.4 84% 44	+0.19 72% 47	+20 91% 50	+0.98 91% 76	+1.06 91% 70	+0.94 82% 23	\$232 19	\$399 14
<b>Breed Average EBVs</b>		<b>+47</b>	<b>+1.7</b>	<b>+2.7</b>	<b>-4.4</b>	<b>+4.0</b>	<b>+51</b>	<b>+92</b>	<b>+119</b>	<b>+102</b>	<b>+17</b>	<b>+2.2</b>	<b>-4.6</b>	<b>+67</b>	<b>+6.4</b>	<b>-0.1</b>	<b>-0.3</b>	<b>+0.5</b>	<b>+2.3</b>	<b>+0.22</b>	<b>+21</b>	<b>+0.84</b>	<b>+0.97</b>	<b>+1.02</b>	<b>+200</b>	<b>+345</b>

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