TACE

TransTasman Angus Cattle Evaluation

GENETIC BENCHMARKING REPORT

Angus Australia

AUGUST 2024

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Date: July 29, 2024

Genetic Progress Summary
2018 to 2023

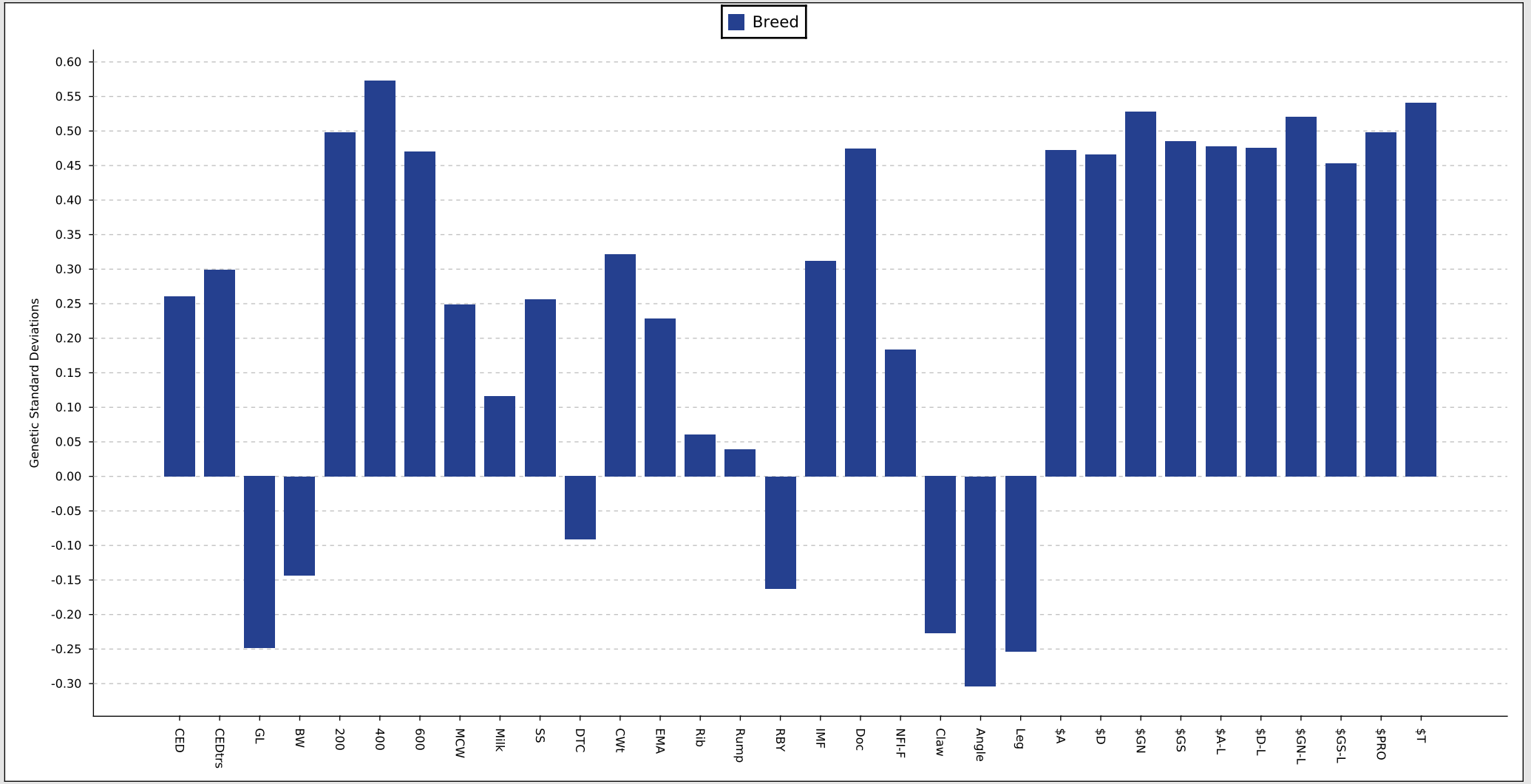
This report assesses the change in the average EBVs of Angus seedstock animals across the nominated five year period.

Trait	Units	Breed	
		Change	Av. Change / Yr
Calving Ease Direct	%	+1.3	+0.3
Calving Ease Daughters	%	+1.2	+0.2
Gestation Length	days	-0.9	-0.2
Birth Weight	kg	-0.3	-0.1
200 Day Growth	kg	+4.9	+1.0
400 Day Weight	kg	+9.0	+1.8
600 Day Weight	kg	+10.5	+2.1
Mature Cow Weight	kg	+7.4	+1.5
Milk	kg	+0.9	+0.2
Scrotal Size	cm	+0.4	+0.1
Days to Calving	days	-0.3	-0.1
Carcase Weight	kg	+6.7	+1.3
Carcase EMA	cm.sq	+1.1	+0.2
Carcase Rib Fat	mm	+0.2	+0.0
Carcase Rump Fat	mm	+0.1	+0.0
Retail Beef Yield	%	-0.2	+0.0
Carcase IMF	%	+0.6	+0.1
Docility	%	+2.9	+0.6
NFI-F	%	+0.1	+0.0
Claw Set	score	+0.0	+0.0
Foot Angle	score	+0.0	+0.0
Leg Angle	score	+0.0	+0.0
Angus Breeding ($A)	$	+27.0	+5.4
Domestic ($D)	$	+22.2	+4.4
Heavy Grain ($GN)	$	+37.9	+7.6
Heavy Grass($GS)	$	+27.3	+5.5
Angus Breeding Low Feed Cost ($A-L)	$	+42.4	+8.5
Domestic Low Feed Cost ($D-L)	$	+36.2	+7.2
Heavy Grain Low Feed Cost ($GN-L)	$	+54.2	+10.8
Heavy Grass Low Feed Cost ($GS-L)	$	+47.5	+9.5
AngusPRO ($PRO)	$	+28.0	+5.6
Angus Terminal Sire ($T)	$	+23.3	+4.7

Genetic Progress Summary

Relative Change in Each Trait - 2018 to 2023

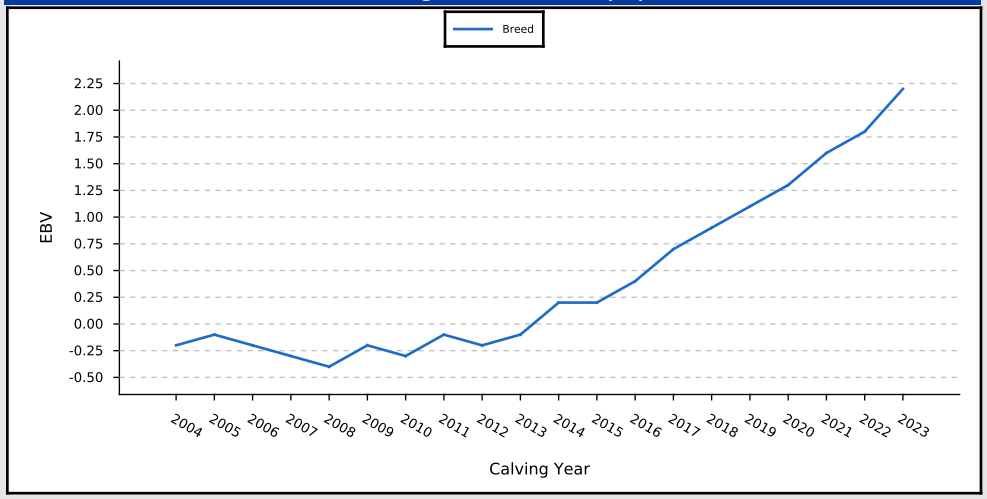
This report assesses the change in the average EBVs of Angus seedstock animals across the nominated five year period in standard deviation units (rather than the units of measurement), enabling comparison of the relative change that has occurred in individual traits.



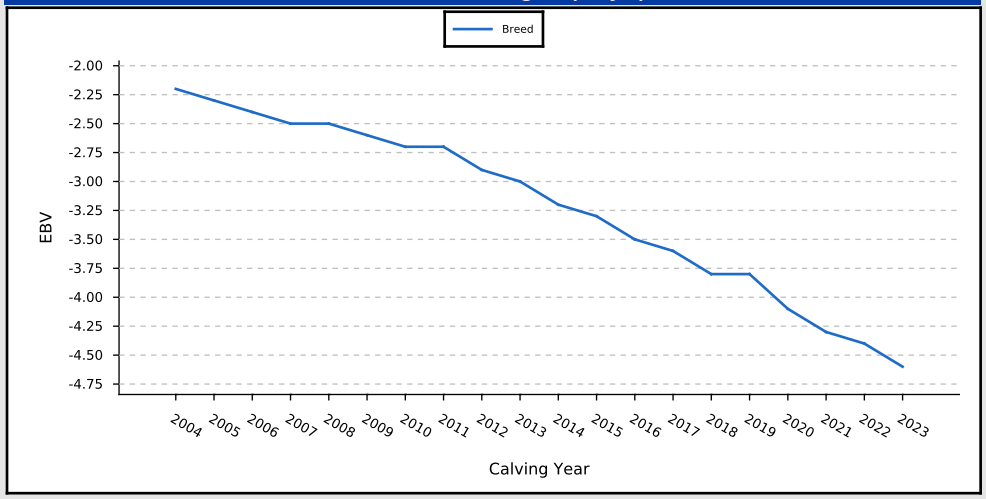
Genetic Progress By Trait

The reports below assess the change in the average EBVs of Angus seedstock animals born in each year for each respective trait.

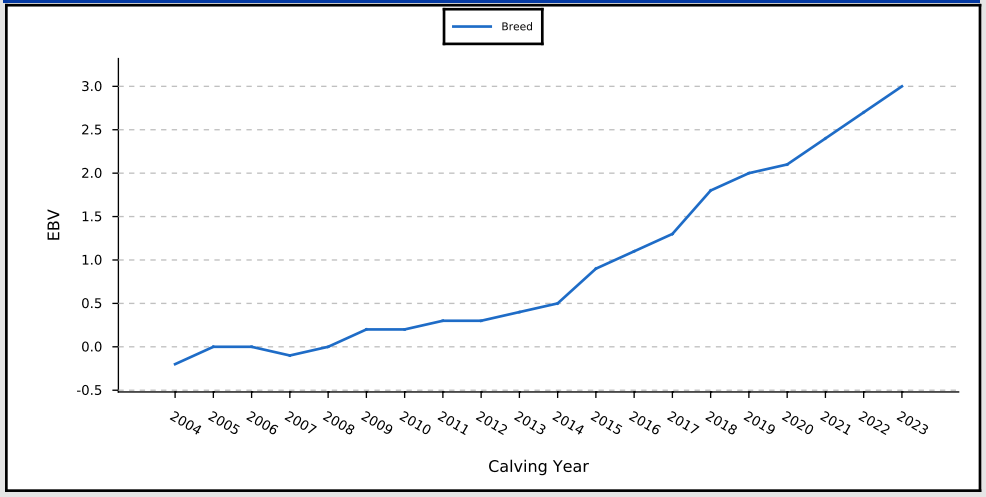
Calving Ease Direct (%)



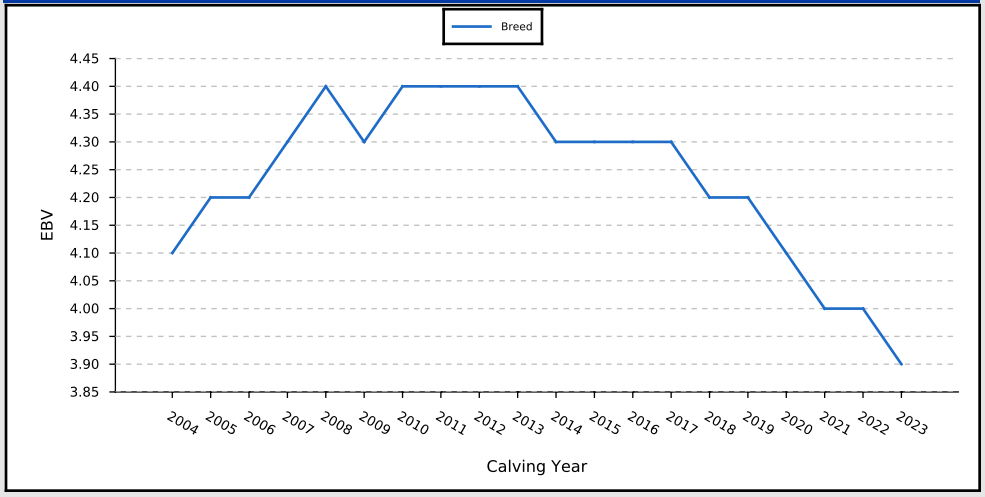
Gestation Length (days)



Calving Ease Daughters (%)



Birth Weight (kg)

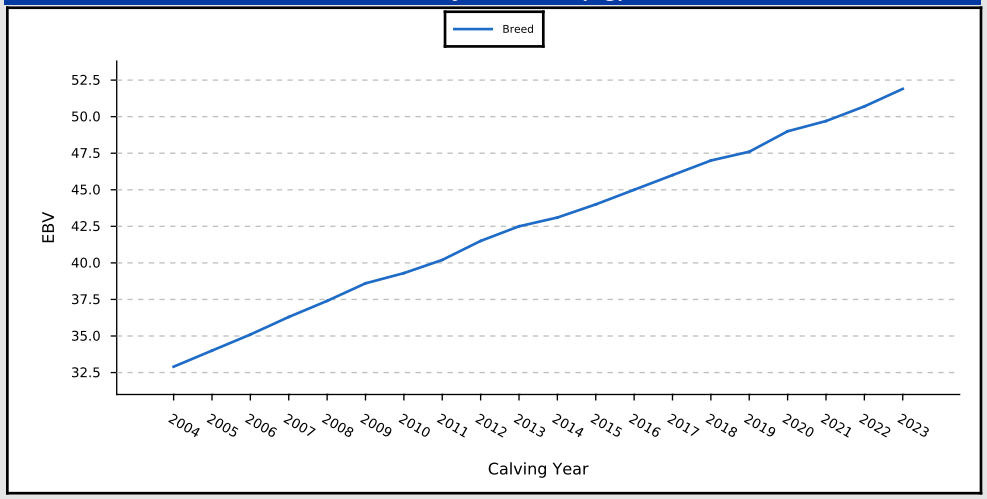


Genetic Progress By Trait

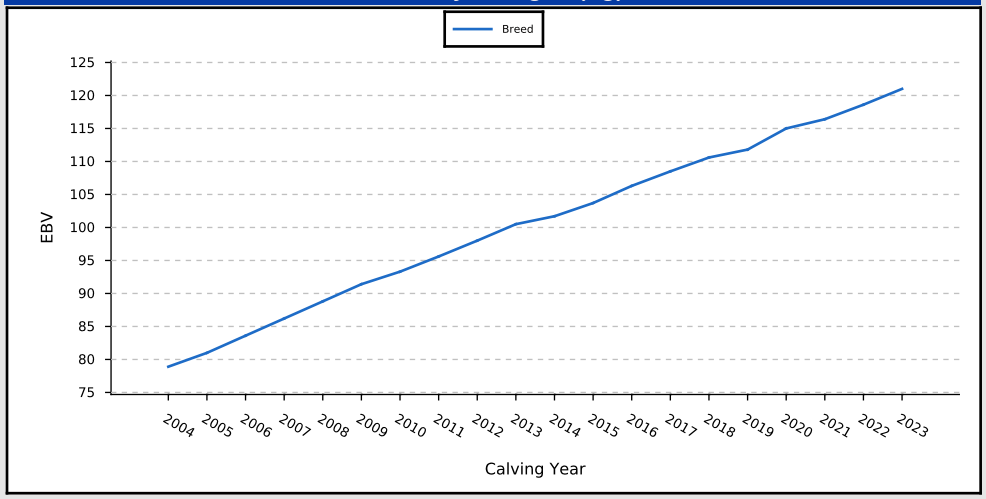
Date: July 29, 2024

The reports below assess the change in the average EBVs of Angus seedstock animals born in each year for each respective trait.

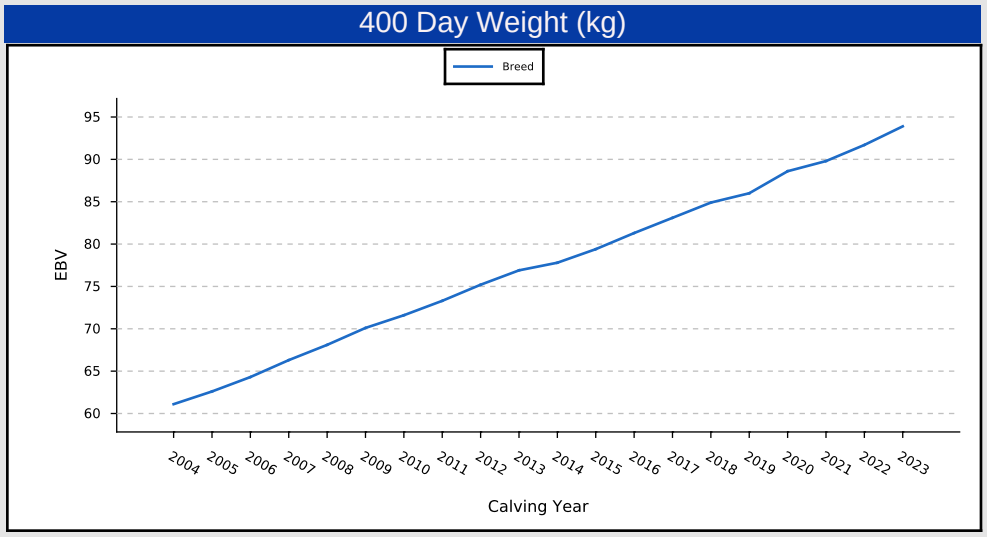
200 Day Growth (kg)



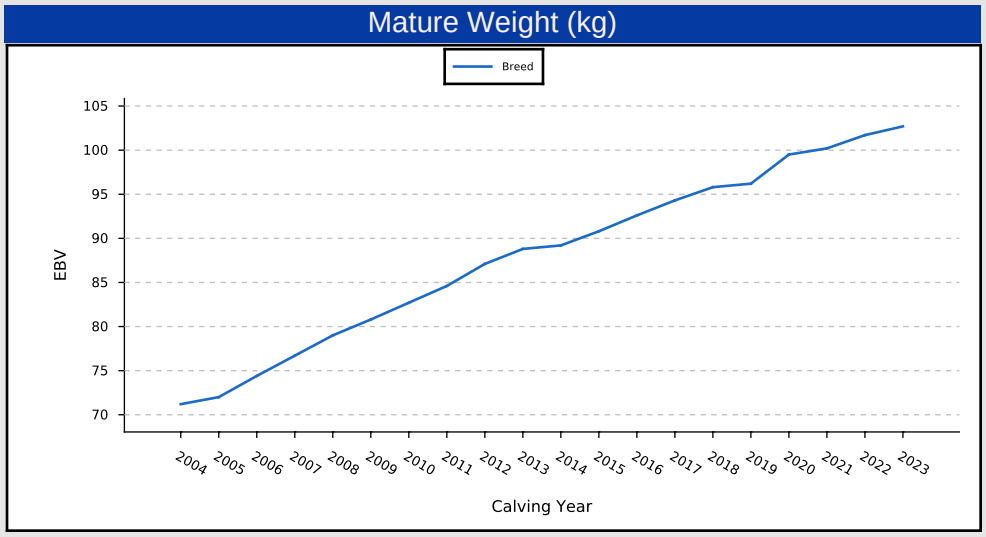
600 Day Weight (kg)



400 Day Weight (kg)



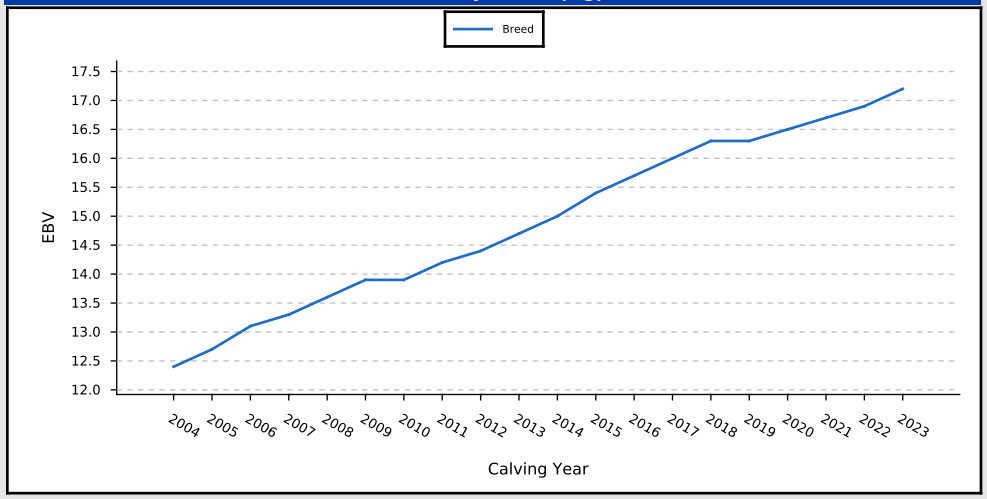
Mature Weight (kg)



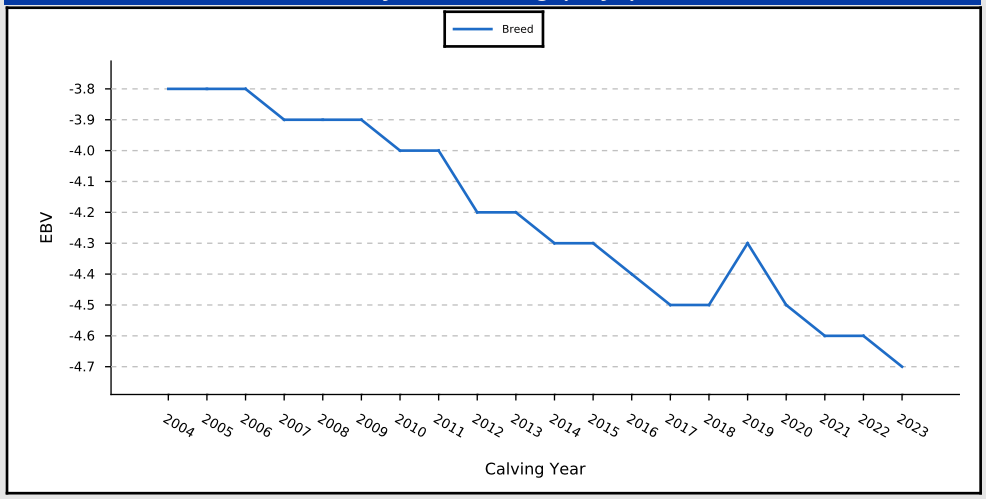
Genetic Progress By Trait

The reports below assess the change in the average EBVs of Angus seedstock animals born in each year for each respective trait.

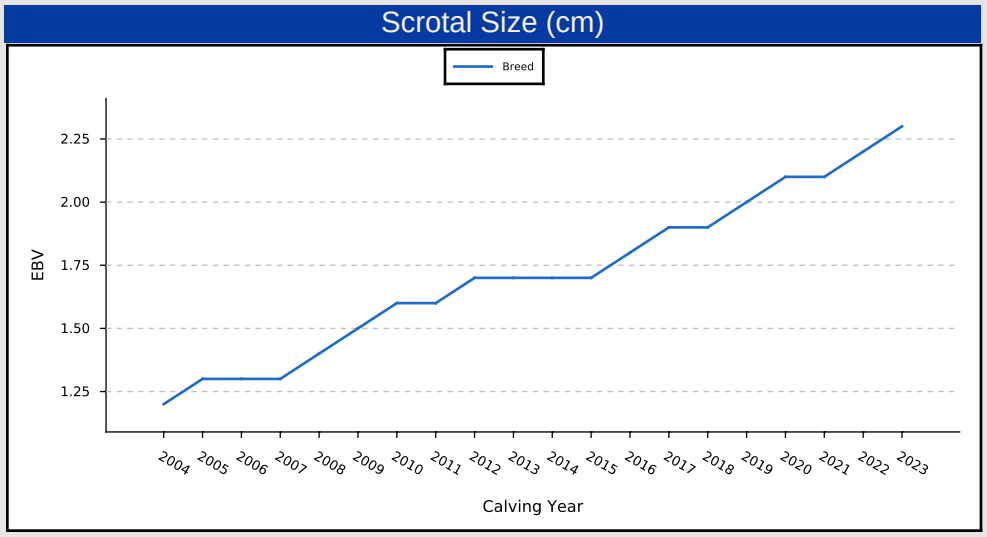
200 Day Milk (kg)



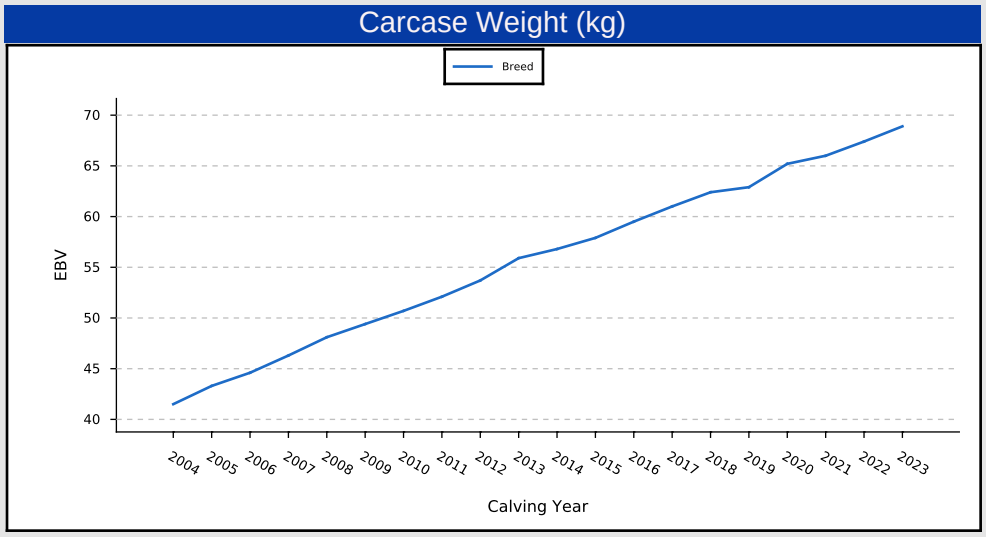
Days to Calving (days)



Scrotal Size (cm)



Carcase Weight (kg)

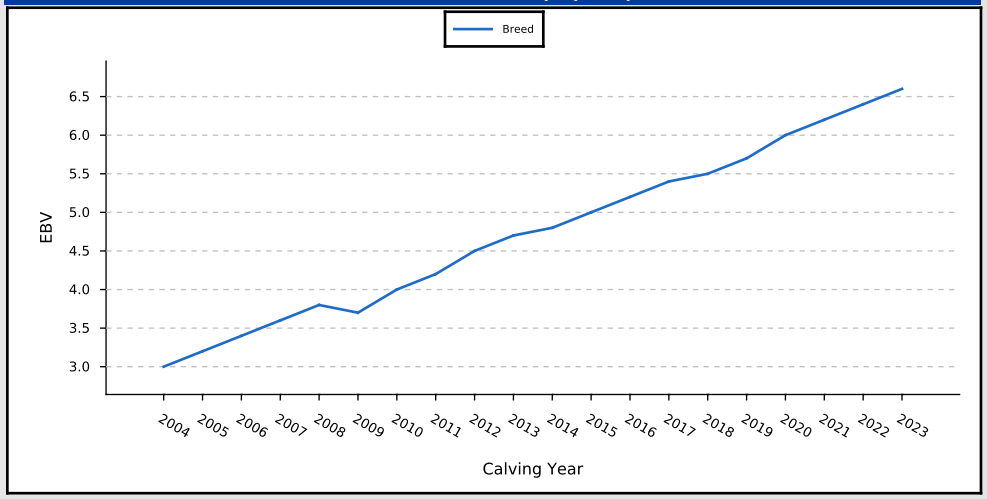


Genetic Progress By Trait

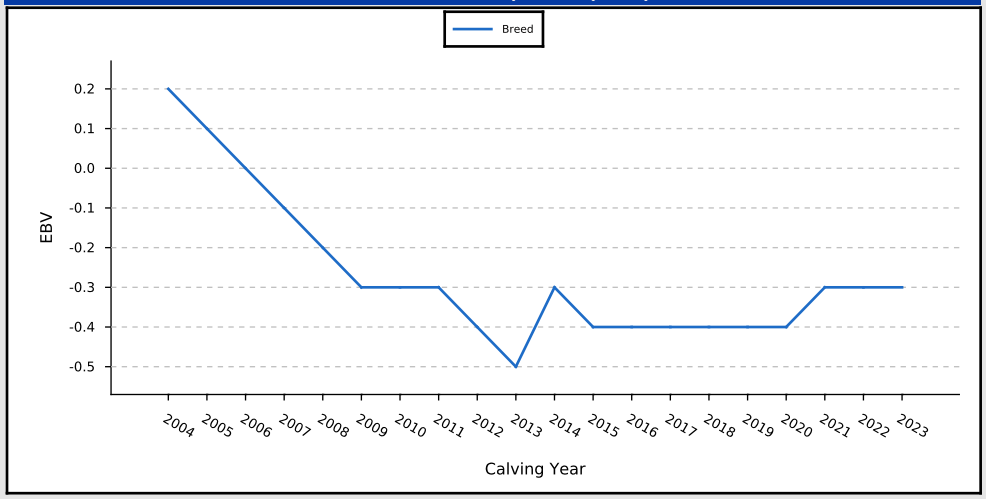
Date: July 29, 2024

The reports below assess the change in the average EBVs of Angus seedstock animals born in each year for each respective trait.

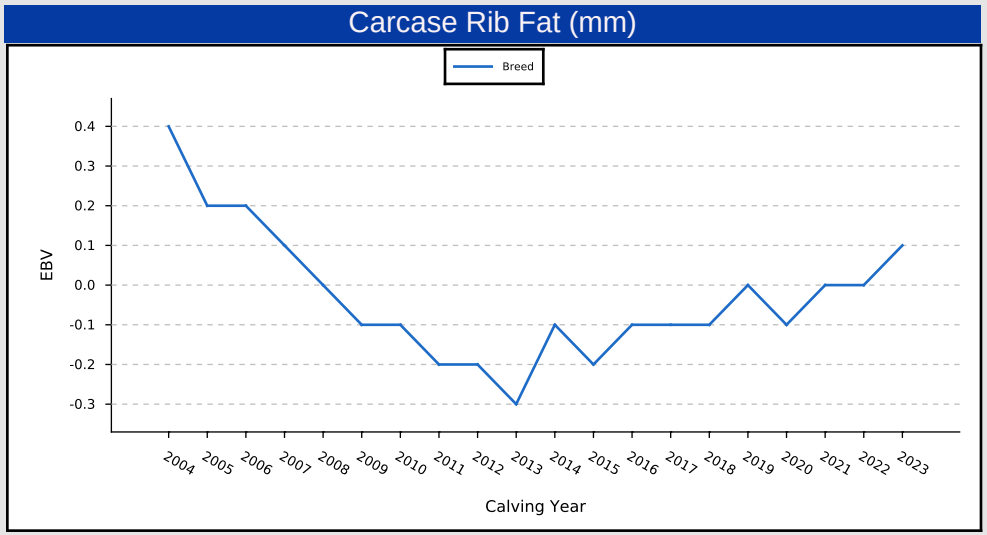
Carcase EMA (sq.cm)



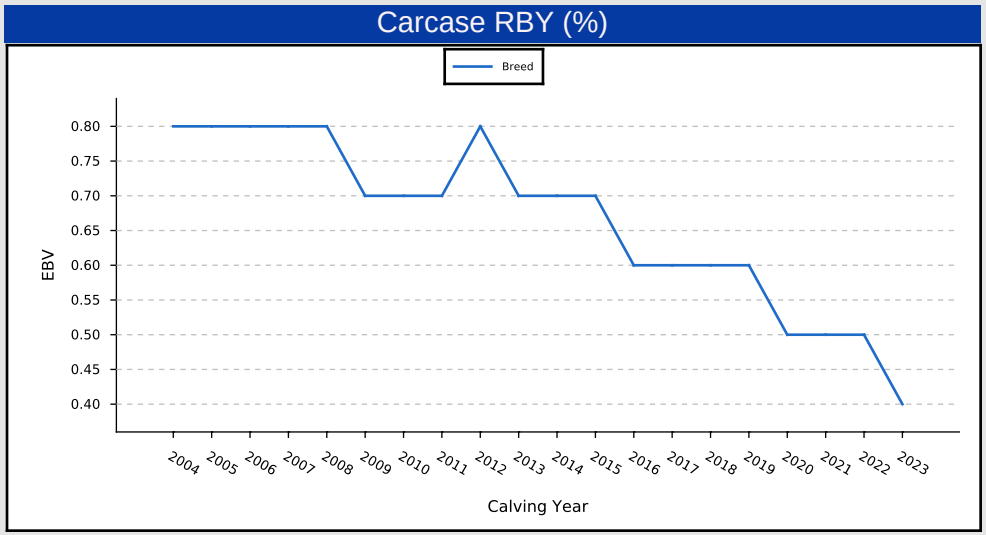
Carcase Rump Fat (mm)



Carcase Rib Fat (mm)



Carcase RBY (%)

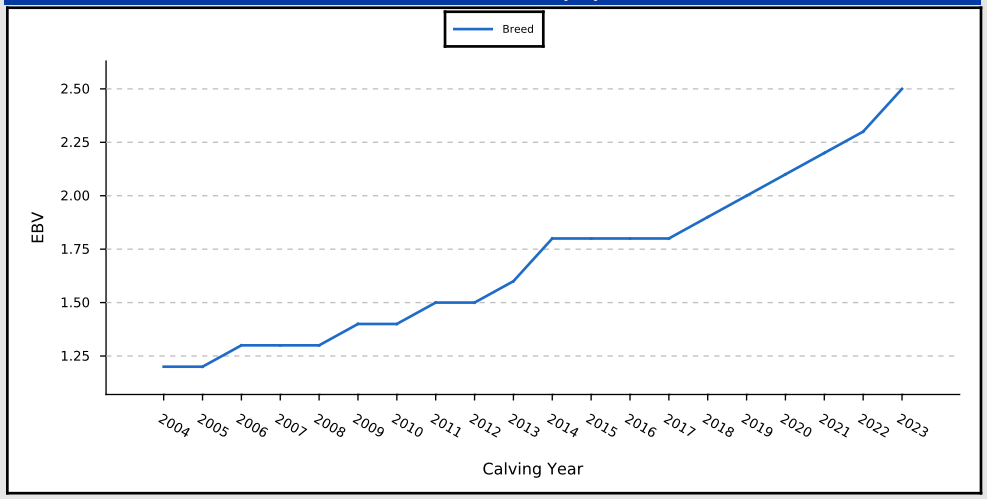


Genetic Progress By Trait

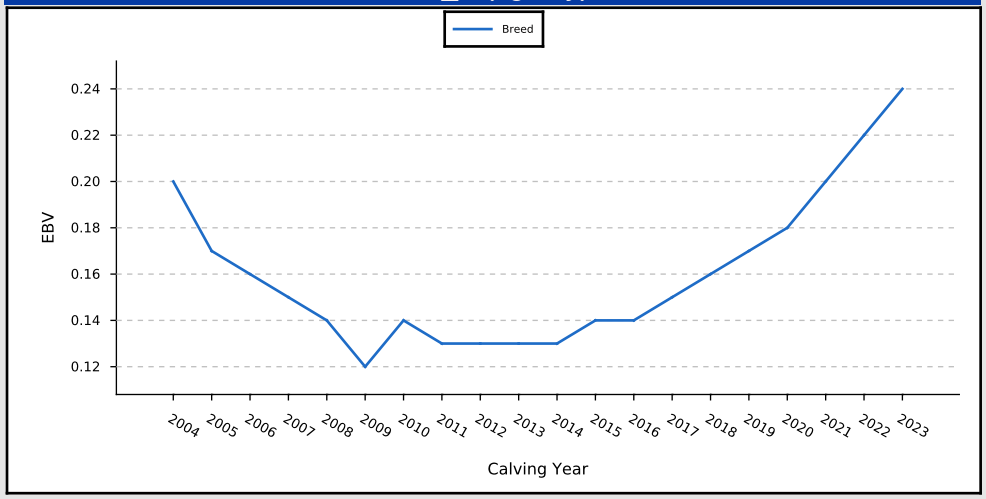
Date: July 29, 2024

The reports below assess the change in the average EBVs of Angus seedstock animals born in each year for each respective trait.

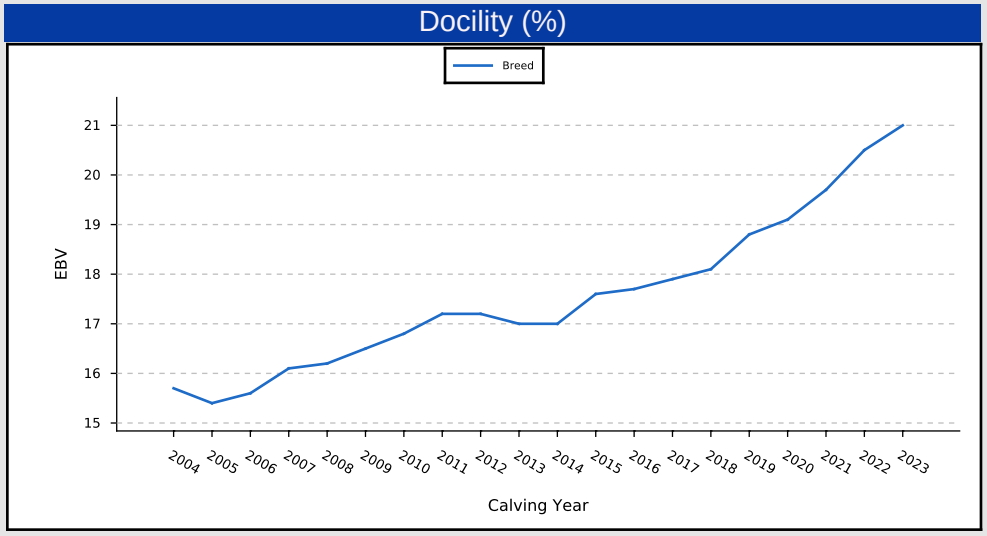
Carcase IMF (%)



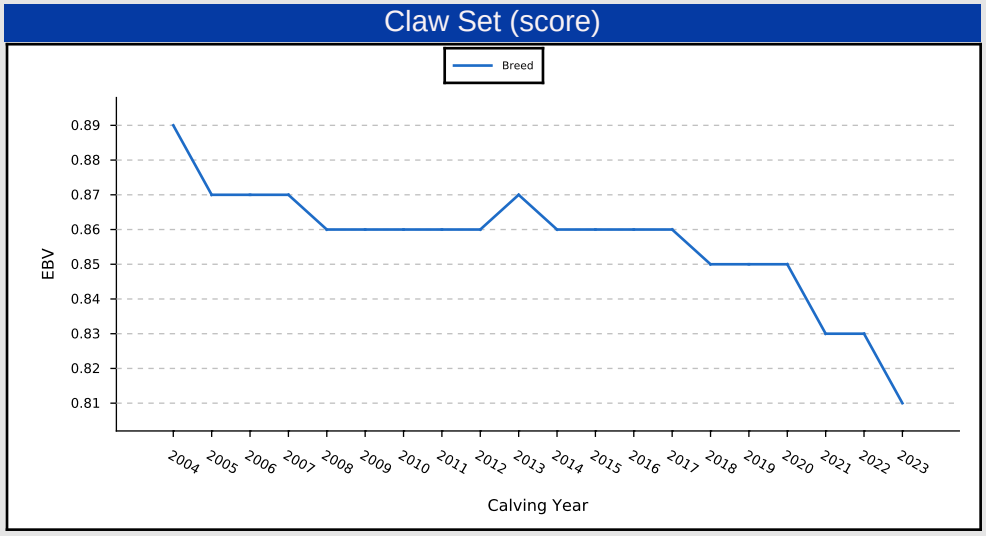
NFI_F (kg/day)



Docility (%)



Claw Set (score)



Genetic Progress By Trait

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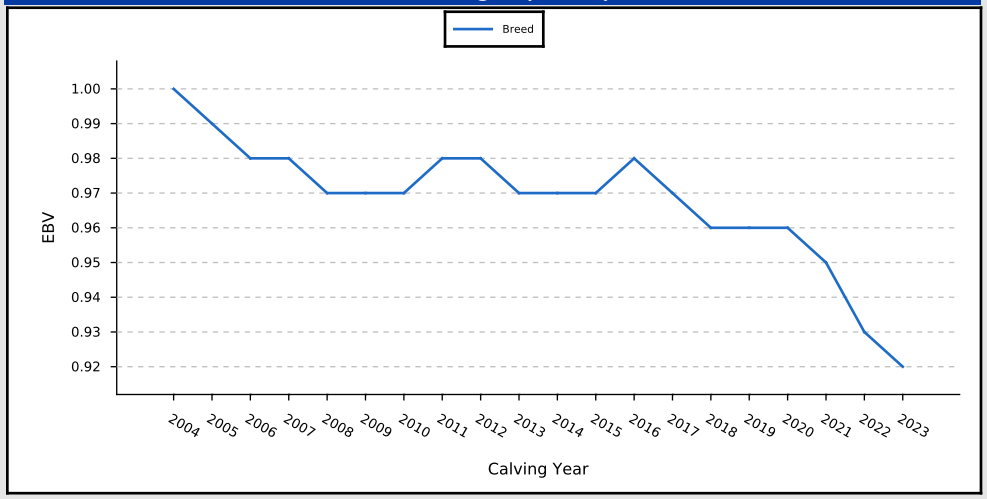
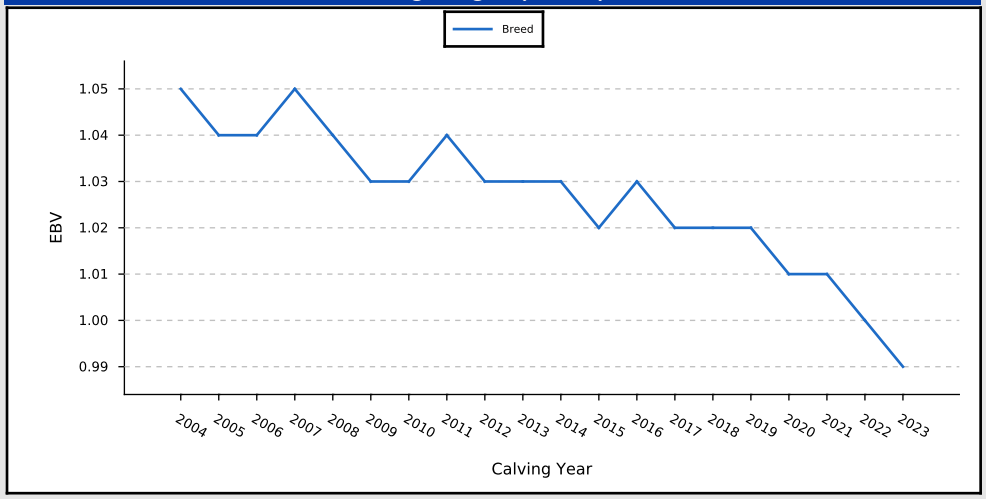
The reports below assess the change in the average EBVs of Angus seedstock animals born in each year for each respective trait.

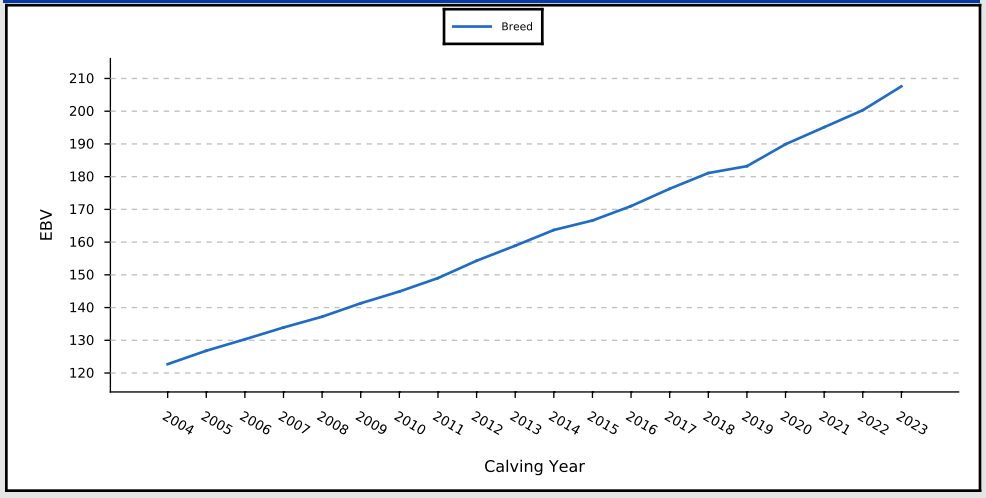
Foot Angle (score)



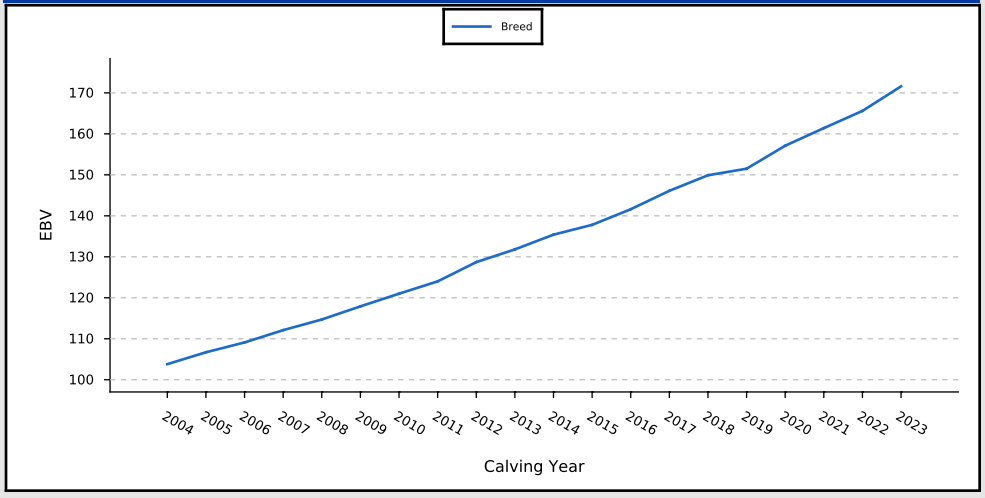
Leg Angle (score)



Angus Breeding ($A)



Domestic ($D)



Genetic Progress By Trait

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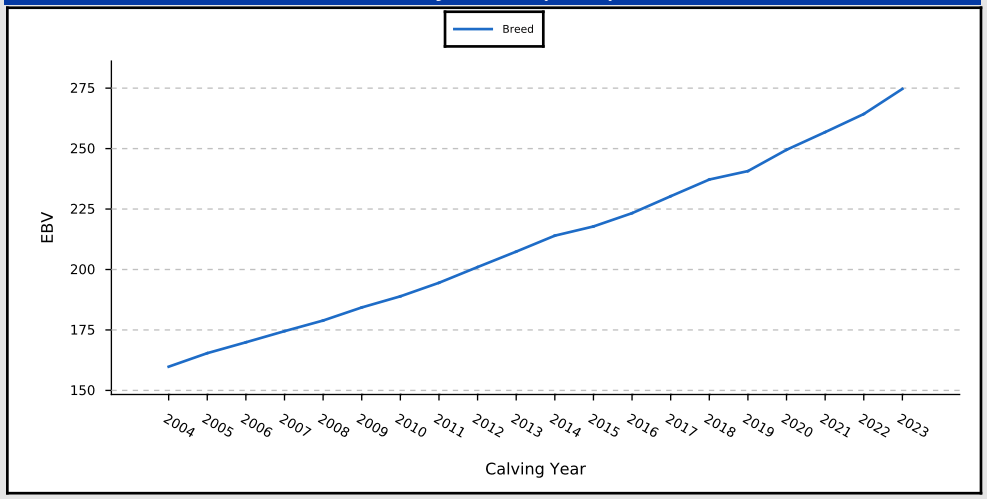
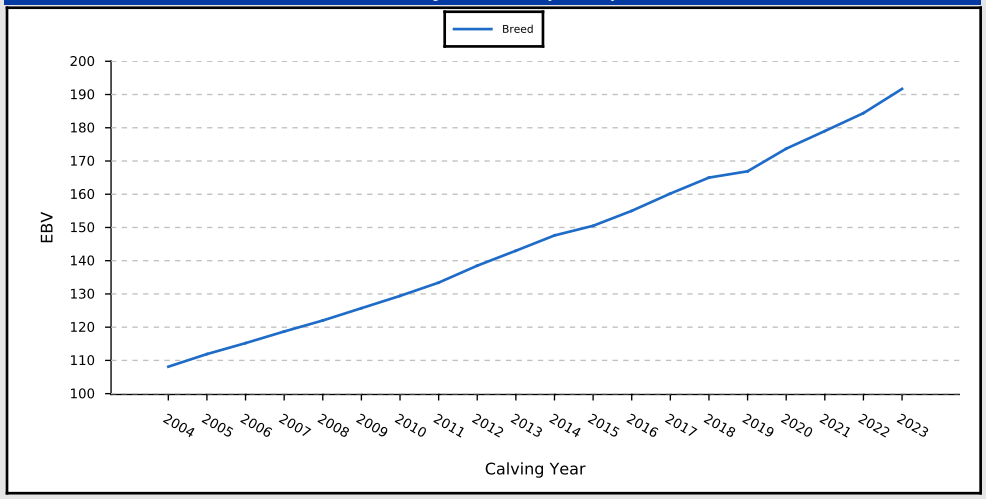
The reports below assess the change in the average EBVs of Angus seedstock animals born in each year for each respective trait.

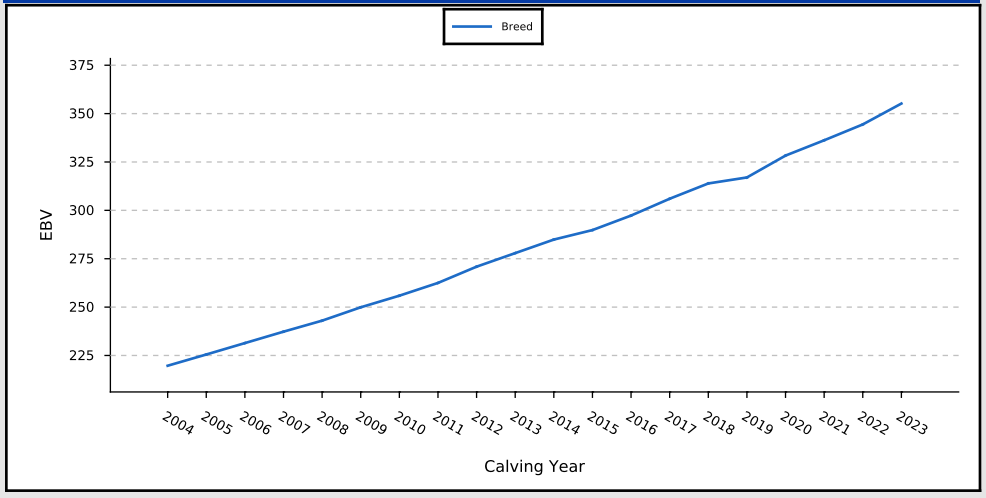
Heavy Grain ($GN)



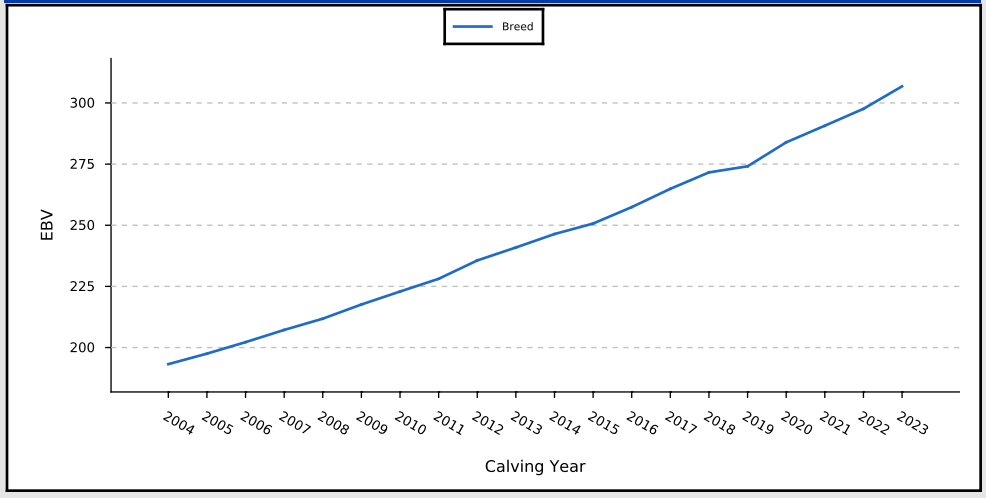
Heavy Grass ($GS)



Angus Breeding Low Feed Cost ($A-L)

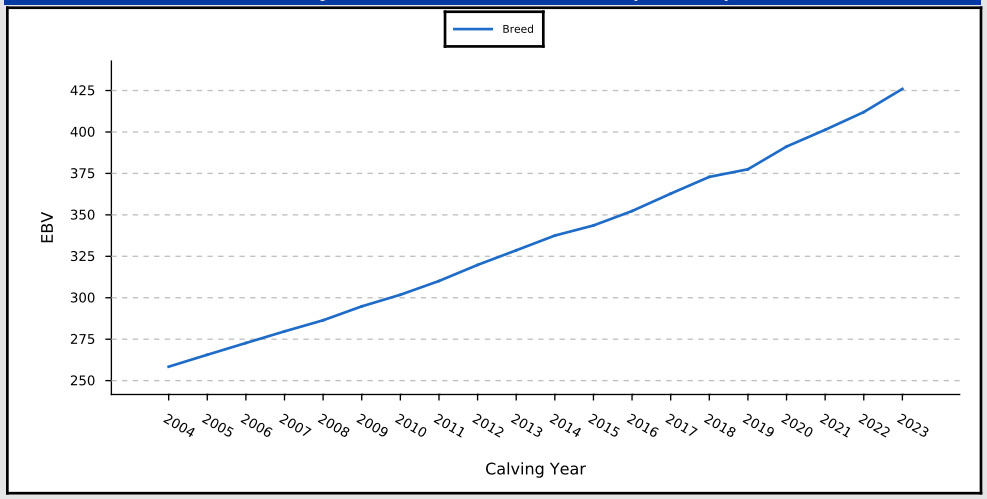


Domestic Low Feed Cost ($D-L)

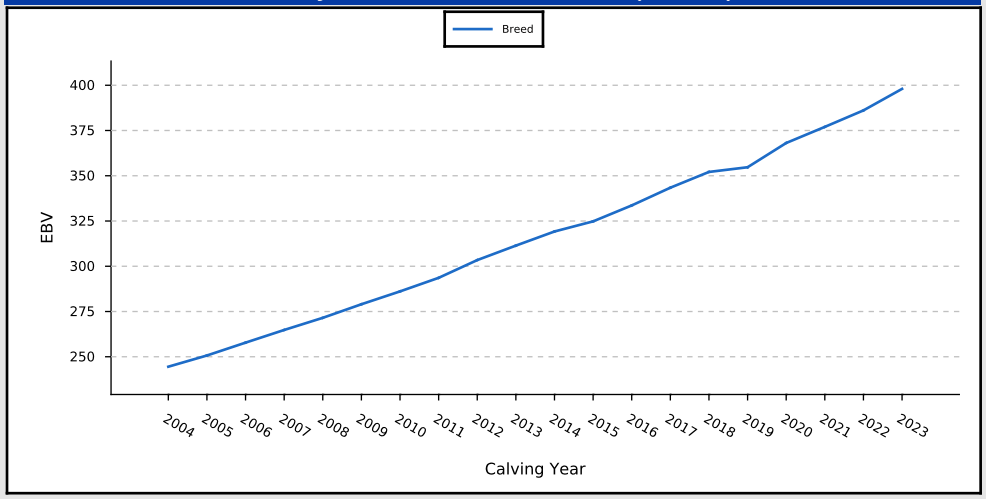


The reports below assess the change in the average EBVs of Angus seedstock animals born in each year for each respective trait.

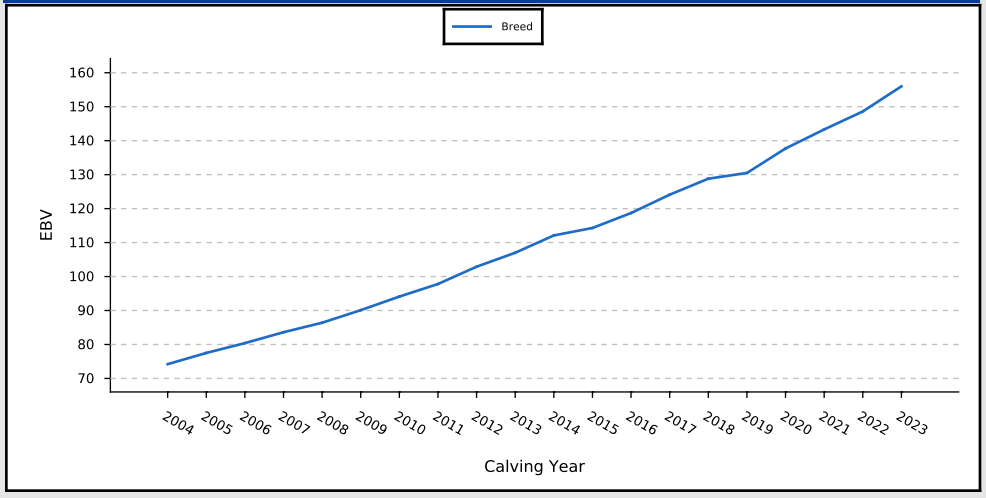
Heavy Grain Low Feed Cost ($GN-L)



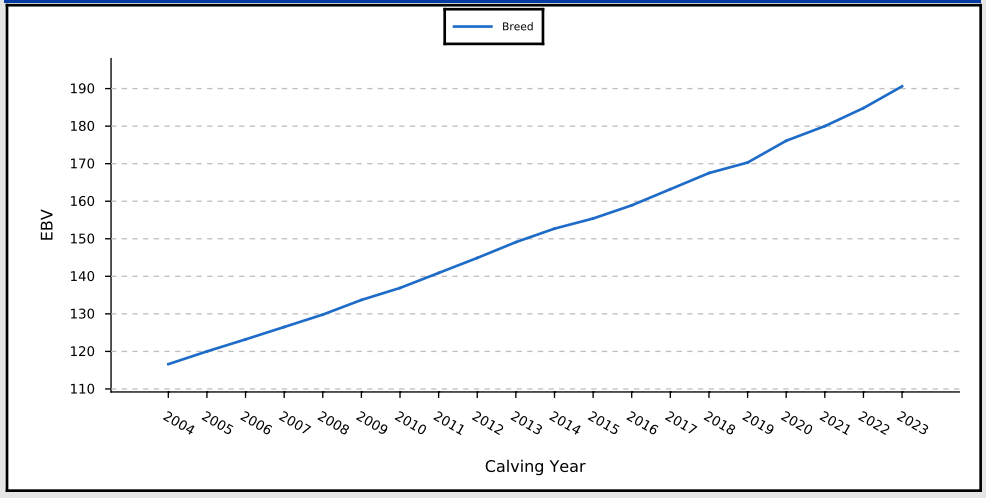
Heavy Grass Low Feed Cost ($GS-L)



AngusPRO ($PRO)



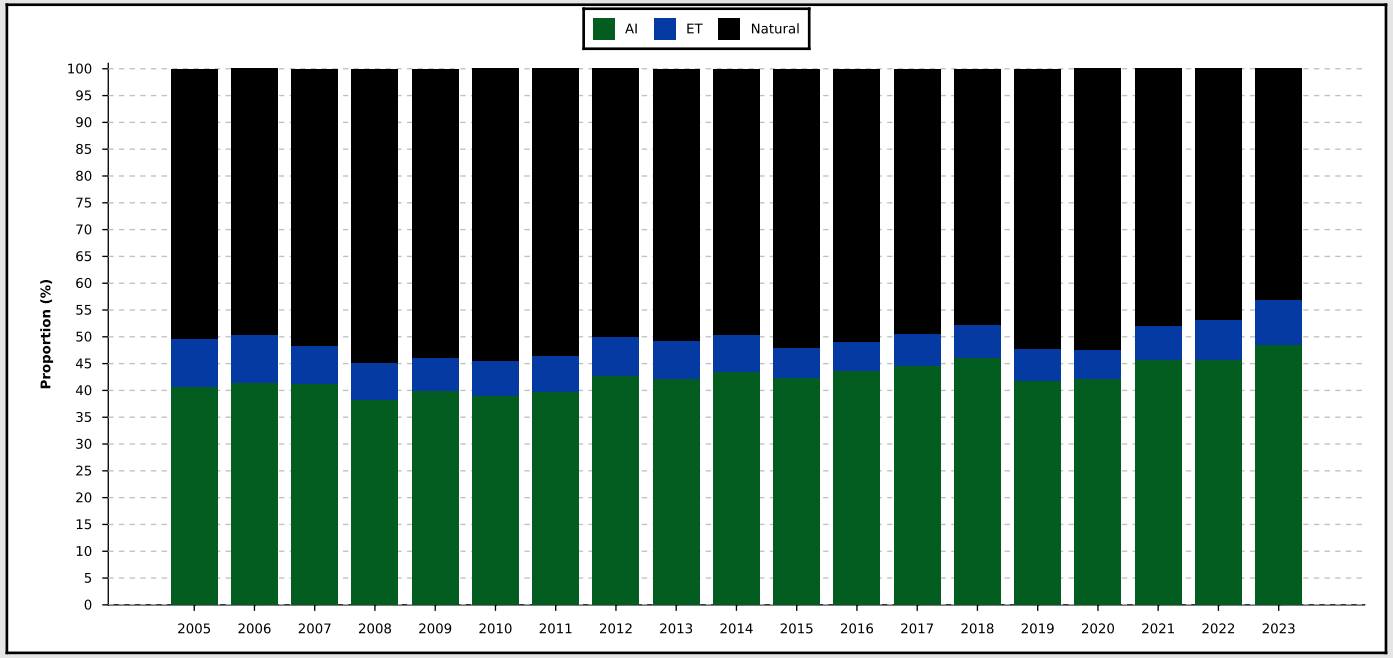
Angus Terminal Sire ($T)



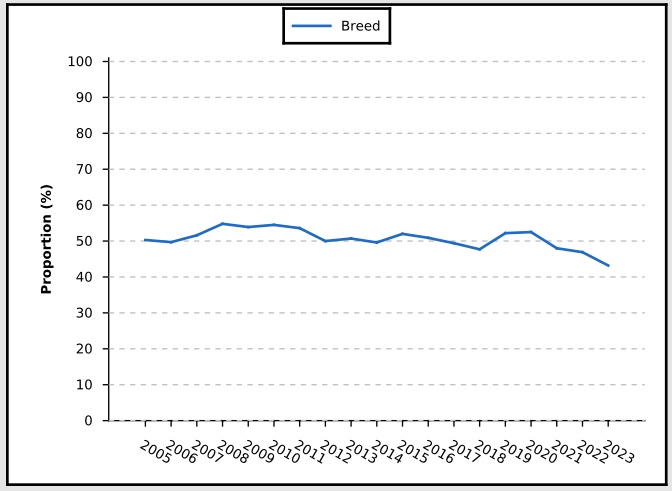
This report assesses the utilisation of reproductive technologies within the Angus breed by summarising the number of animals born in each year that have been bred by artificial insemination and embryo transfer.

Calving Year	Animals	Mating Type		
		Natural	AI	ET
2005	69676	35043	28355	6278
2006	70737	35134	29345	6258
2007	67429	34807	27764	4858
2008	67836	37149	26004	4683
2009	66743	35983	26696	4064
2010	67422	36725	26271	4426
2011	73569	39409	29284	4876
2012	79631	39818	34099	5714
2013	82001	41564	34644	5793
2014	80866	40101	35121	5644
2015	81528	42430	34576	4522
2016	82511	42008	36098	4405
2017	85996	42446	38282	5268
2018	86242	41158	39876	5208
2019	85796	44826	35769	5201
2020	83030	43584	34924	4522
2021	95073	45665	43405	6003
2022	104013	48767	47493	7753
2023	92238	39807	44722	7709

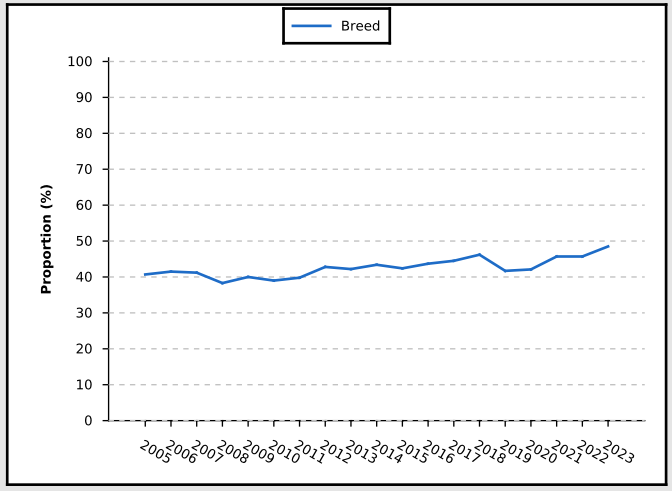
Mating Type



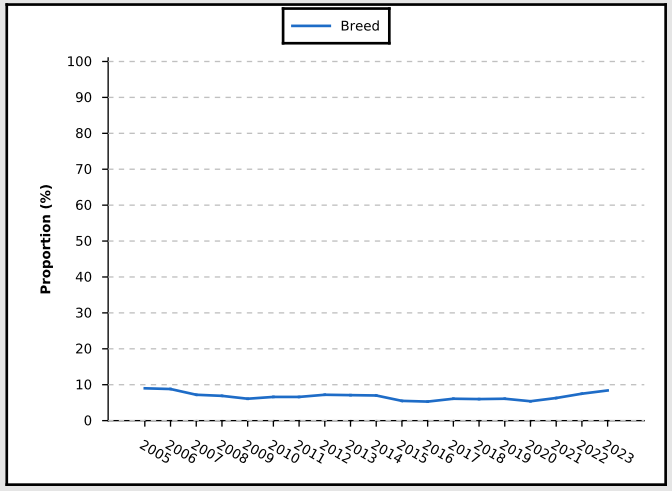
Natural



AI



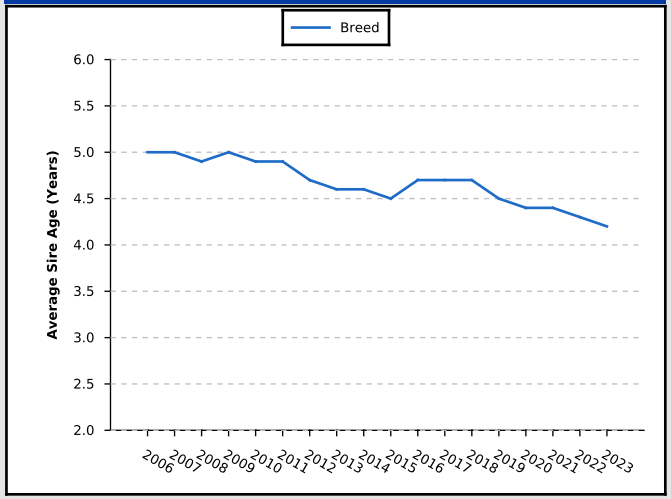
ET



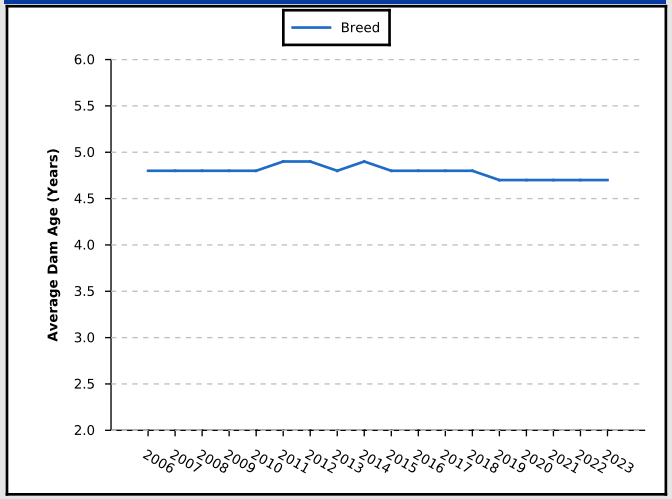
This report summarises the average age of the sires and dams of Angus seedstock animals over time. The statistics are calculated as the age of the sire and dam when their progeny are born, and are weighted according to the number of progeny that a sire or dam has in a particular year. For example, if a sire has 50 calves in a particular calving year, its age will make a greater contribution to the average age statistics than a sire with 5 calves.

		Sire Age (Years)				Dam Age (Years)			
Calving Year	Animals	All	Natural	AI	ET	All	Natural	AI	ET
2006	64562	5.0	3.7	6.2	7.7	4.8	4.7	4.4	6.4
2007	62621	5.0	3.7	6.3	7.6	4.8	4.7	4.4	6.4
2008	63357	4.9	3.7	6.4	7.8	4.8	4.8	4.4	6.7
2009	62991	5.0	3.7	6.5	7.9	4.8	4.7	4.5	6.9
2010	63491	4.9	3.7	6.1	7.6	4.8	4.8	4.5	6.5
2011	69736	4.9	3.7	6.1	7.6	4.9	4.9	4.5	6.8
2012	75074	4.7	3.7	5.6	6.7	4.9	4.9	4.5	6.7
2013	77354	4.6	3.7	5.4	6.4	4.8	4.8	4.5	6.8
2014	76268	4.6	3.7	5.4	6.7	4.9	4.9	4.5	6.9
2015	77912	4.5	3.7	5.3	6.7	4.8	4.8	4.5	6.9
2016	78510	4.7	3.8	5.5	6.7	4.8	4.9	4.5	6.8
2017	81070	4.7	3.8	5.5	6.6	4.8	4.8	4.5	6.8
2018	81562	4.7	3.7	5.5	6.5	4.8	4.8	4.5	6.9
2019	81349	4.5	3.6	5.3	6.8	4.7	4.7	4.4	6.5
2020	79465	4.4	3.6	5.2	5.9	4.7	4.7	4.3	6.8
2021	90308	4.4	3.5	5.2	6.5	4.7	4.7	4.3	6.9
2022	97539	4.3	3.5	4.9	5.8	4.7	4.7	4.3	6.8
2023	86014	4.2	3.4	4.8	5.5	4.7	4.6	4.4	6.6

Sire Age

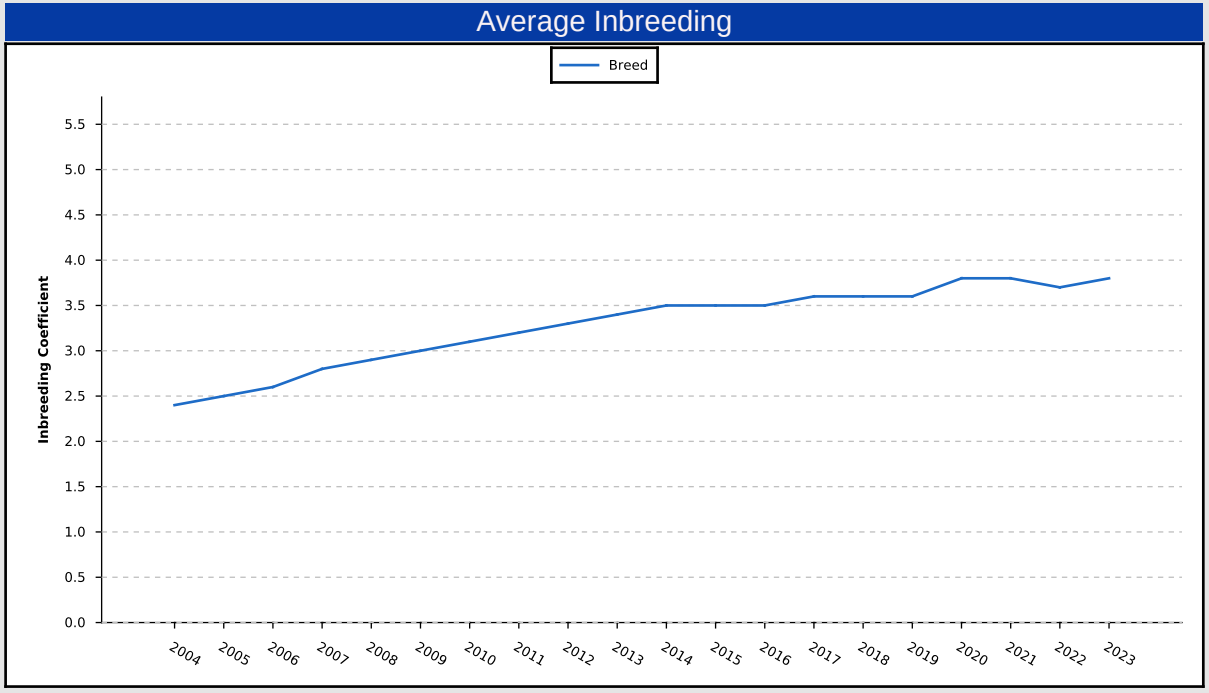


Dam Age



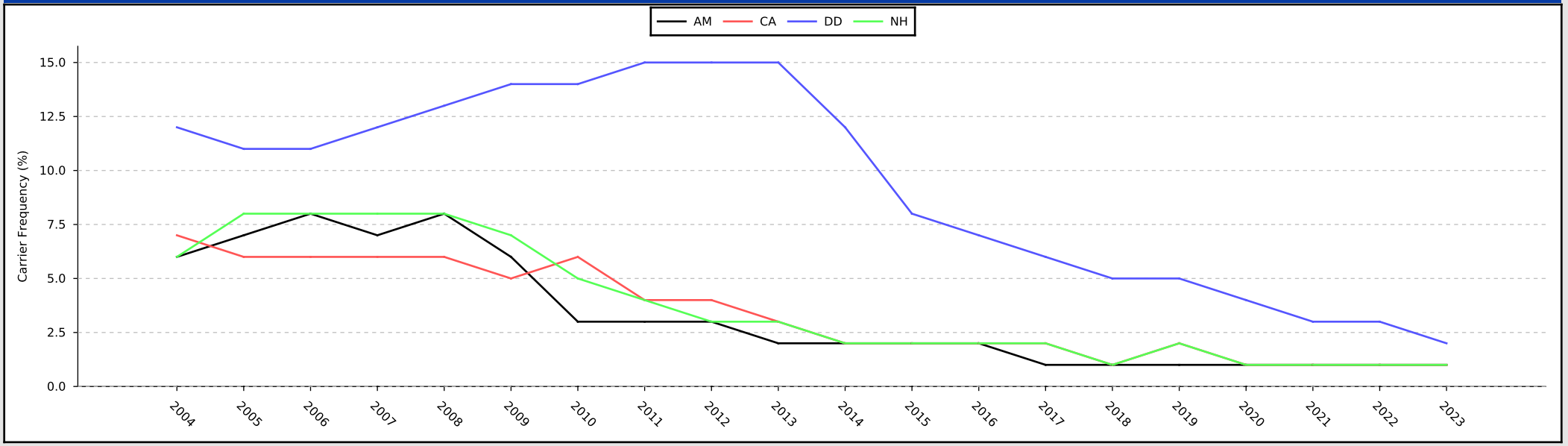
This report assesses the genetic diversity within the Angus breed by summarising the average inbreeding co-efficient of animals born in each year.

Calving Year	Animals	Inbreeding Coefficient (%) Breed
2004	61499	2.4
2005	63459	2.5
2006	64562	2.6
2007	62621	2.8
2008	63357	2.9
2009	62991	3.0
2010	63491	3.1
2011	69736	3.2
2012	75074	3.3
2013	77354	3.4
2014	76268	3.5
2015	77912	3.5
2016	78510	3.5
2017	81070	3.6
2018	81562	3.6
2019	81349	3.6
2020	79465	3.8
2021	90308	3.8
2022	97539	3.7
2023	86014	3.8

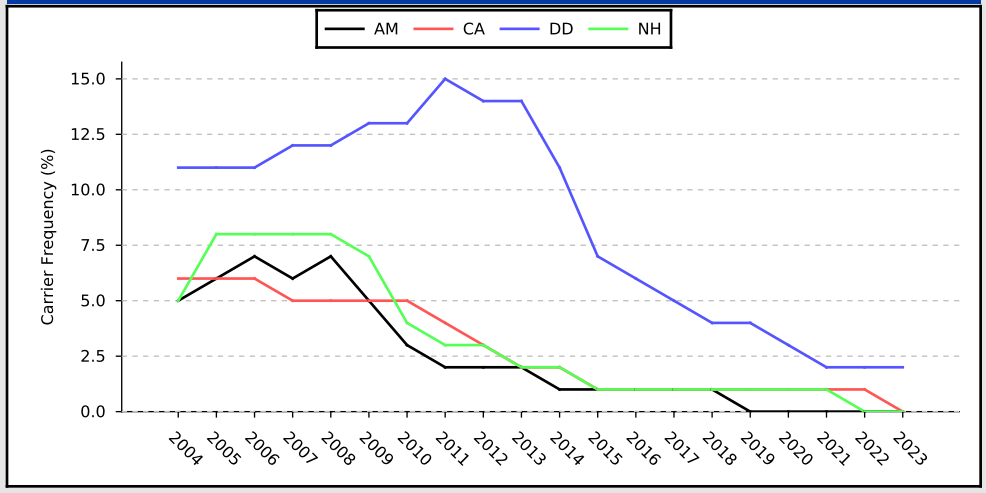


This report assesses the frequency of carriers for recessive genetic conditions over time. The statistics are calculated based on the results of the gene probability analyses conducted by Angus Australia.

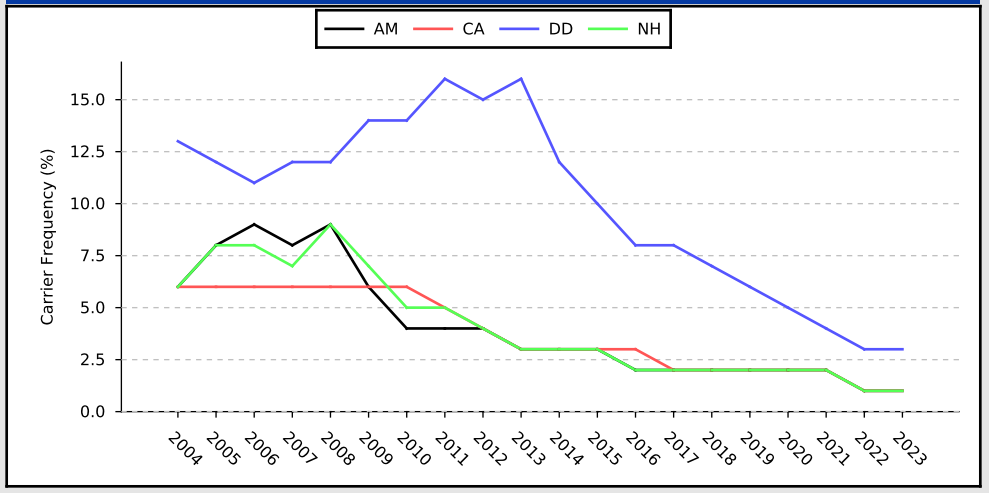
All Registers



Herdbook Register (HBR)



Angus Performance Register (APR)



This report provides the average EBVs for all animals recorded with Angus Australia over time.

		Estimated Breeding Values																															
		Calv-Ease		Birth		Growth					Fert		Carcase						Feed	Temp	Structural			Selection Index									
Year	Count	Dir	Dtrs	GL	BW	200	400	600	Mwt	Milk	SS	DC	CW	EMA	RIB	P8	RBY	IMF	NFI-F	DOC	Claw	Angle	Leg	$A	$D	$GN	$GS	$A-L	$D-L	$GN-L	$GS-L	$PRO	$T
2004	61499	-0.2	-0.2	-2.2	+4.1	+33	+61	+79	+71	+12	+1.2	-3.8	+42	+3.0	+0.4	+0.2	+0.8	+1.2	+0.20	+16	+0.89	+1.00	+1.05	+123	+104	+160	+108	+220	+193	+258	+245	+74	+117
2005	63459	-0.1	+0.0	-2.3	+4.2	+34	+63	+81	+72	+13	+1.3	-3.8	+43	+3.2	+0.2	+0.1	+0.8	+1.2	+0.17	+15	+0.87	+0.99	+1.04	+127	+107	+165	+112	+226	+198	+266	+251	+78	+120
2006	64562	-0.2	+0.0	-2.4	+4.2	+35	+64	+84	+74	+13	+1.3	-3.8	+45	+3.4	+0.2	+0.0	+0.8	+1.3	+0.16	+16	+0.87	+0.98	+1.04	+130	+109	+170	+115	+231	+202	+273	+258	+80	+123
2007	62621	-0.3	-0.1	-2.5	+4.3	+36	+66	+86	+77	+13	+1.3	-3.9	+46	+3.6	+0.1	-0.1	+0.8	+1.3	+0.15	+16	+0.87	+0.98	+1.05	+134	+112	+175	+119	+237	+207	+280	+265	+84	+127
2008	63357	-0.4	+0.0	-2.5	+4.4	+37	+68	+89	+79	+14	+1.4	-3.9	+48	+3.8	+0.0	-0.2	+0.8	+1.3	+0.14	+16	+0.86	+0.97	+1.04	+137	+115	+179	+122	+243	+212	+286	+272	+86	+130
2009	62991	-0.2	+0.2	-2.6	+4.3	+39	+70	+91	+81	+14	+1.5	-3.9	+49	+3.7	-0.1	-0.3	+0.7	+1.4	+0.12	+17	+0.86	+0.97	+1.03	+141	+118	+184	+126	+250	+218	+295	+279	+90	+134
2010	63491	-0.3	+0.2	-2.7	+4.4	+39	+72	+93	+83	+14	+1.6	-4.0	+51	+4.0	-0.1	-0.3	+0.7	+1.4	+0.14	+17	+0.86	+0.97	+1.03	+145	+121	+189	+129	+256	+223	+302	+286	+94	+137
2011	69736	-0.1	+0.3	-2.7	+4.4	+40	+73	+96	+85	+14	+1.6	-4.0	+52	+4.2	-0.2	-0.3	+0.7	+1.5	+0.13	+17	+0.86	+0.98	+1.04	+149	+124	+195	+133	+263	+228	+310	+294	+98	+141
2012	75074	-0.2	+0.3	-2.9	+4.4	+42	+75	+98	+87	+14	+1.7	-4.2	+54	+4.5	-0.2	-0.4	+0.8	+1.5	+0.13	+17	+0.86	+0.98	+1.03	+154	+129	+201	+139	+271	+236	+320	+303	+103	+145
2013	77354	-0.1	+0.4	-3.0	+4.4	+43	+77	+101	+89	+15	+1.7	-4.2	+56	+4.7	-0.3	-0.5	+0.7	+1.6	+0.13	+17	+0.87	+0.97	+1.03	+159	+132	+207	+143	+278	+241	+329	+311	+107	+149
2014	76268	+0.2	+0.5	-3.2	+4.3	+43	+78	+102	+89	+15	+1.7	-4.3	+57	+4.8	-0.1	-0.3	+0.7	+1.8	+0.13	+17	+0.86	+0.97	+1.03	+164	+135	+214	+148	+285	+246	+338	+319	+112	+153
2015	77912	+0.2	+0.9	-3.3	+4.3	+44	+79	+104	+91	+15	+1.7	-4.3	+58	+5.0	-0.2	-0.4	+0.7	+1.8	+0.14	+18	+0.86	+0.97	+1.02	+167	+138	+218	+151	+290	+251	+344	+325	+114	+155
2016	78510	+0.4	+1.1	-3.5	+4.3	+45	+81	+106	+93	+16	+1.8	-4.4	+60	+5.2	-0.1	-0.4	+0.6	+1.8	+0.14	+18	+0.86	+0.98	+1.03	+171	+142	+223	+155	+297	+257	+352	+334	+119	+159
2017	81070	+0.7	+1.3	-3.6	+4.3	+46	+83	+109	+94	+16	+1.9	-4.5	+61	+5.4	-0.1	-0.4	+0.6	+1.8	+0.15	+18	+0.86	+0.97	+1.02	+176	+146	+230	+160	+306	+265	+363	+343	+124	+163
2018	81562	+0.9	+1.8	-3.8	+4.2	+47	+85	+111	+96	+16	+1.9	-4.5	+62	+5.5	-0.1	-0.4	+0.6	+1.9	+0.16	+18	+0.85	+0.96	+1.02	+181	+150	+237	+165	+314	+272	+373	+352	+129	+168
2019	81349	+1.1	+2.0	-3.8	+4.2	+48	+86	+112	+96	+16	+2.0	-4.3	+63	+5.7	+0.0	-0.4	+0.6	+2.0	+0.17	+19	+0.85	+0.96	+1.02	+183	+152	+241	+167	+317	+274	+378	+355	+131	+170
2020	79465	+1.3	+2.1	-4.1	+4.1	+49	+89	+115	+100	+17	+2.1	-4.5	+65	+6.0	-0.1	-0.4	+0.5	+2.1	+0.18	+19	+0.85	+0.96	+1.01	+190	+157	+250	+174	+328	+284	+391	+368	+138	+176
2021	90308	+1.6	+2.4	-4.3	+4.0	+50	+90	+116	+100	+17	+2.1	-4.6	+66	+6.2	+0.0	-0.3	+0.5	+2.2	+0.20	+20	+0.83	+0.95	+1.01	+195	+161	+257	+179	+336	+291	+401	+377	+143	+180
2022	97539	+1.8	+2.7	-4.4	+4.0	+51	+92	+119	+102	+17	+2.2	-4.6	+67	+6.4	+0.0	-0.3	+0.5	+2.3	+0.22	+21	+0.83	+0.93	+1.00	+200	+166	+264	+184	+344	+298	+412	+386	+149	+185
2023	86014	+2.2	+3.0	-4.6	+3.9	+52	+94	+121	+103	+17	+2.3	-4.7	+69	+6.6	+0.1	-0.3	+0.4	+2.5	+0.24	+21	+0.81	+0.92	+0.99	+208	+172	+275	+192	+355	+307	+426	+398	+156	+191

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