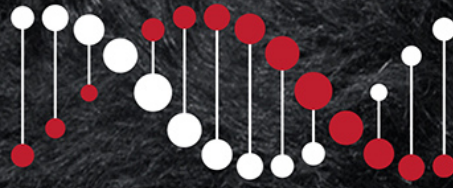


TACE



TransTasman Angus Cattle Evaluation

GENETIC BENCHMARKING REPORT

Angus Australia

JANUARY 2025

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Genetic Progress Summary

2018 to 2023

Date: December 19,

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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	%	+1.2	+0.2
Calving Ease Daughters	%	+1.3	+0.3
Gestation Length	days	-0.8	-0.2
Birth Weight	kg	-0.3	-0.1
200 Day Growth	kg	+5.2	+1.0
400 Day Weight	kg	+9.4	+1.9
600 Day Weight	kg	+11.2	+2.2
Mature Cow Weight	kg	+8.1	+1.6
Mature Body Condition	score	+0.0	+0.0
Mature Cow Height	cm	-0.2	+0.0
Milk	kg	+1.0	+0.2
Scrotal Size	cm	+0.4	+0.1
Days to Calving	days	-0.4	-0.1
Carcase Weight	kg	+6.9	+1.4
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	%	-0.1	+0.0
Carcase IMF	%	+0.6	+0.1
Docility	%	+3.0	+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)	\$	+27.4	+5.5
Domestic (\$D)	\$	+22.4	+4.5
Heavy Grain (\$GN)	\$	+38.3	+7.7
Heavy Grass(\$GS)	\$	+28.1	+5.6
Angus Breeding Low Feed Cost (\$A-L)	\$	+43.3	+8.7
Domestic Low Feed Cost (\$D-L)	\$	+36.9	+7.4
Heavy Grain Low Feed Cost (\$GN-L)	\$	+54.7	+10.9
Heavy Grass Low Feed Cost (\$GS-L)	\$	+49.6	+9.9
AngusPRO (\$PRO)	\$	+28.6	+5.7
Angus Terminal Sire (\$T)	\$	+23.2	+4.6

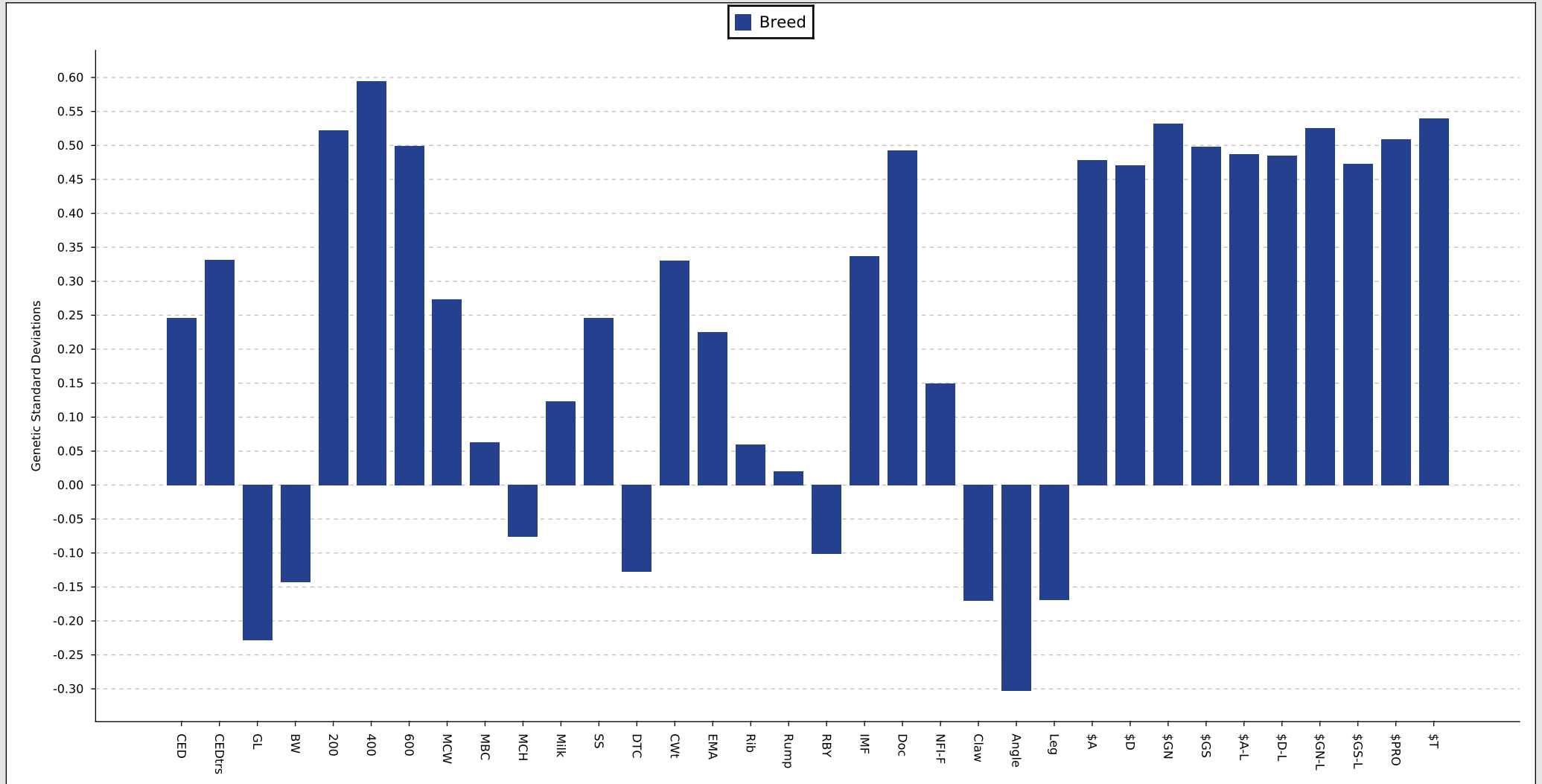
Genetic Progress Summary

Date: December 19,

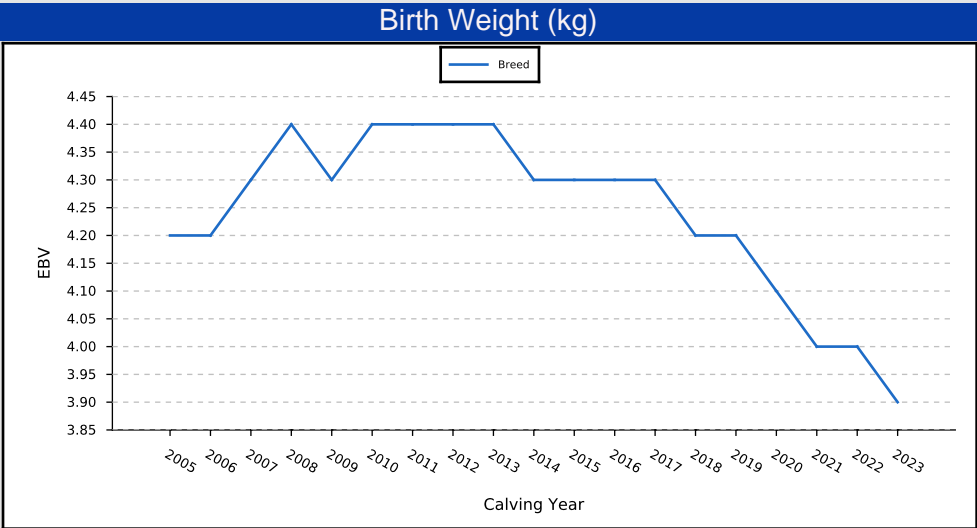
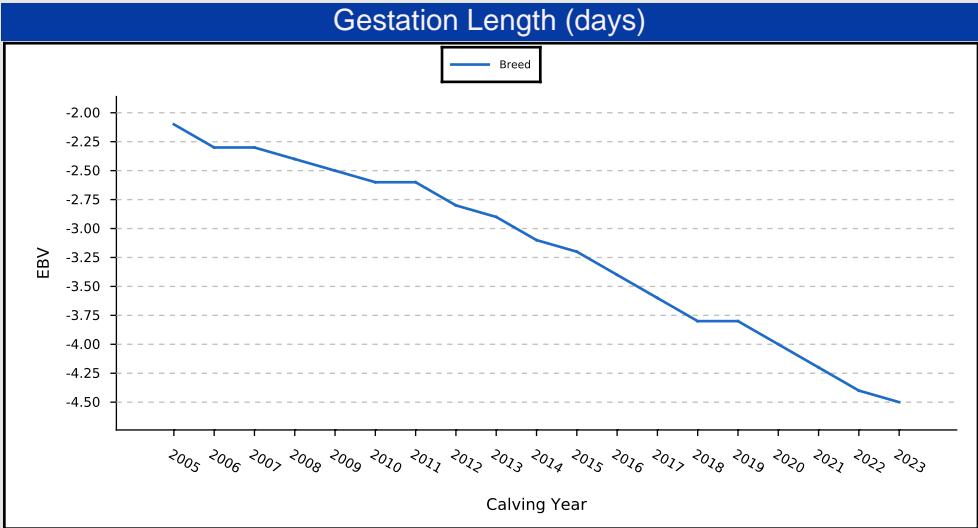
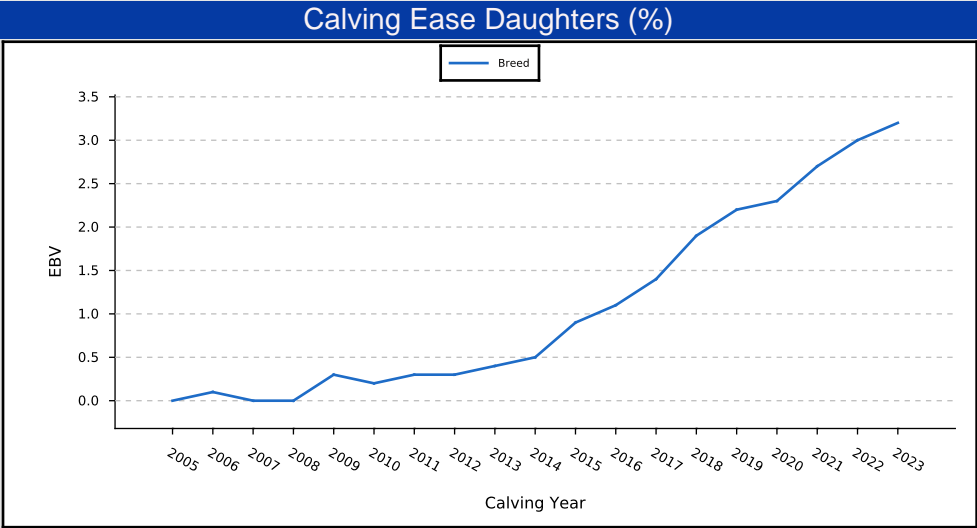
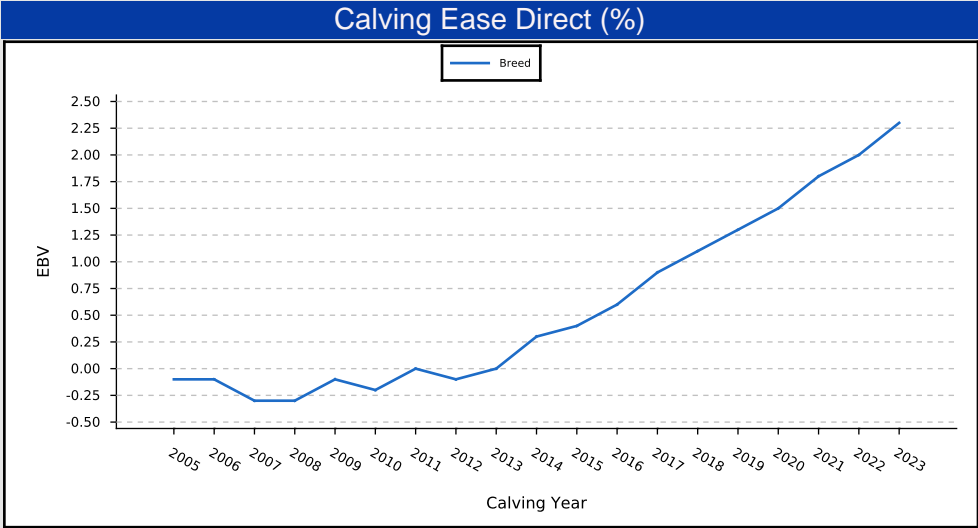
Relative Change in Each Trait - 2018 to 2023

Page: 2

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.

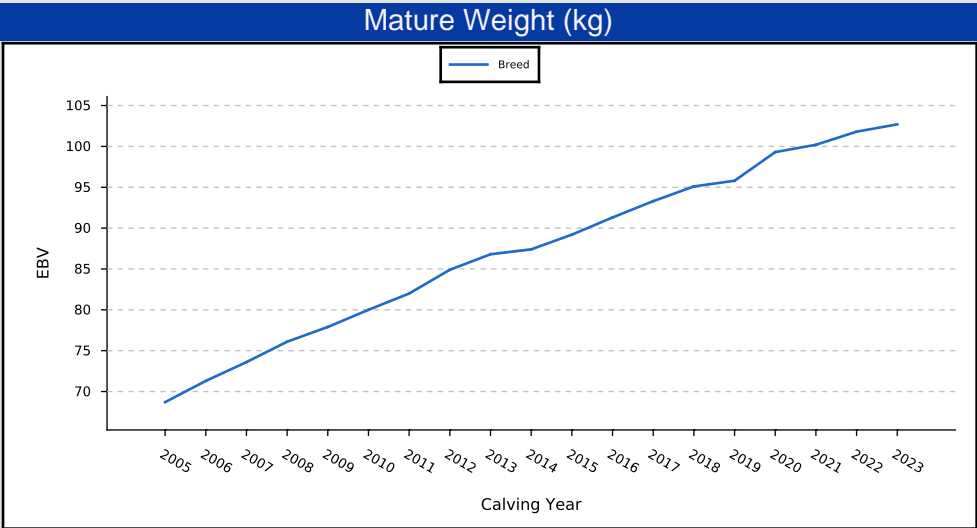
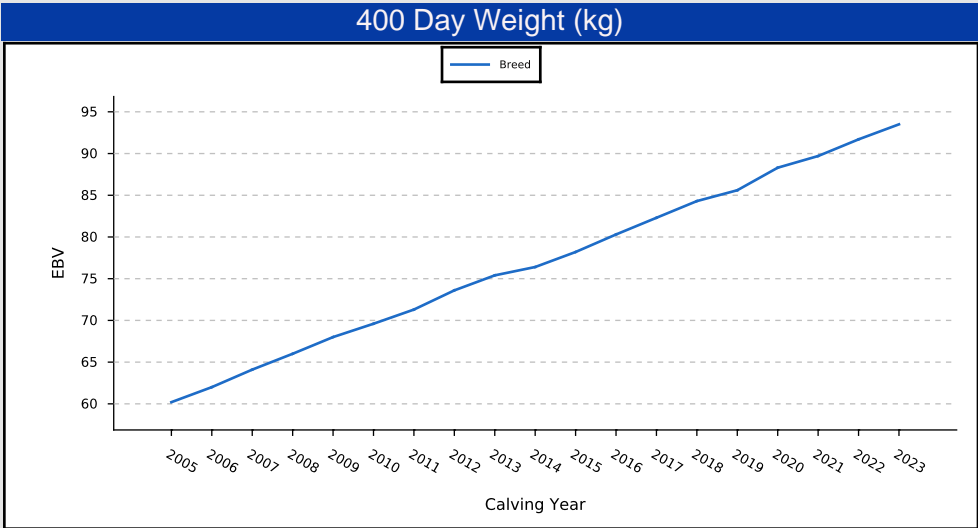
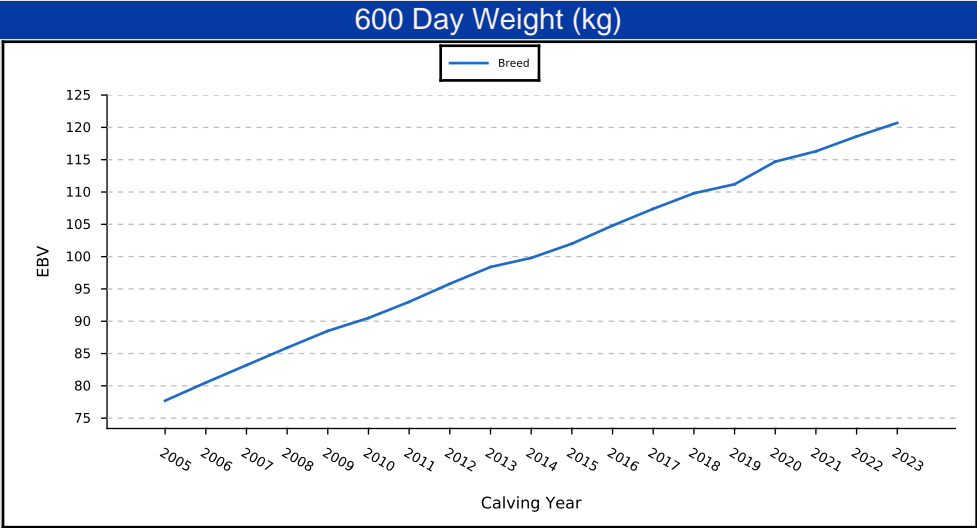
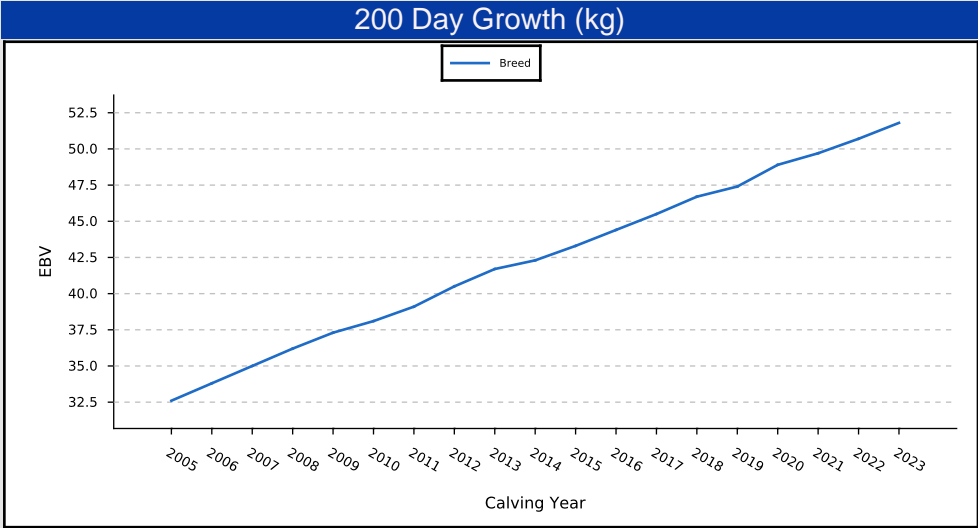


The reports below assess the change in the average EBVs of Angus seedstock animals born in each year for each respective trait.



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.

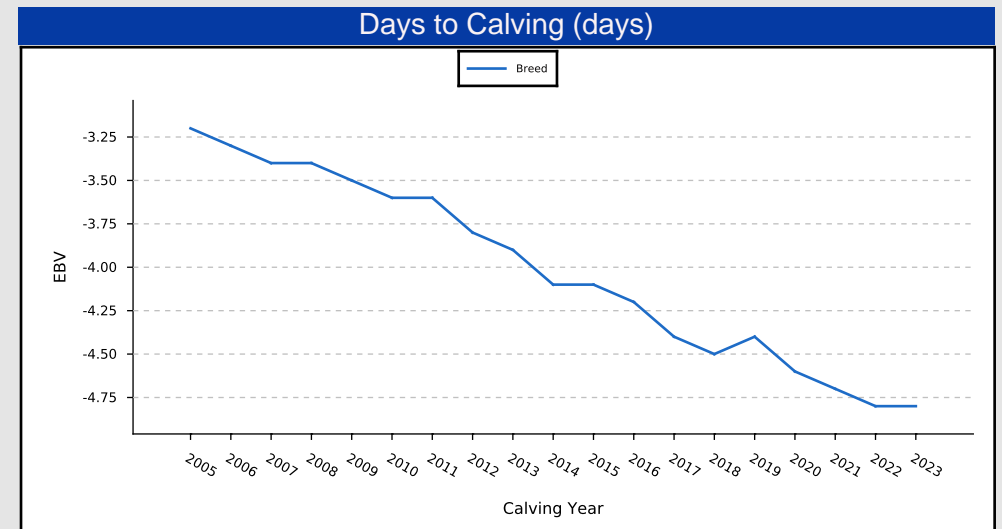
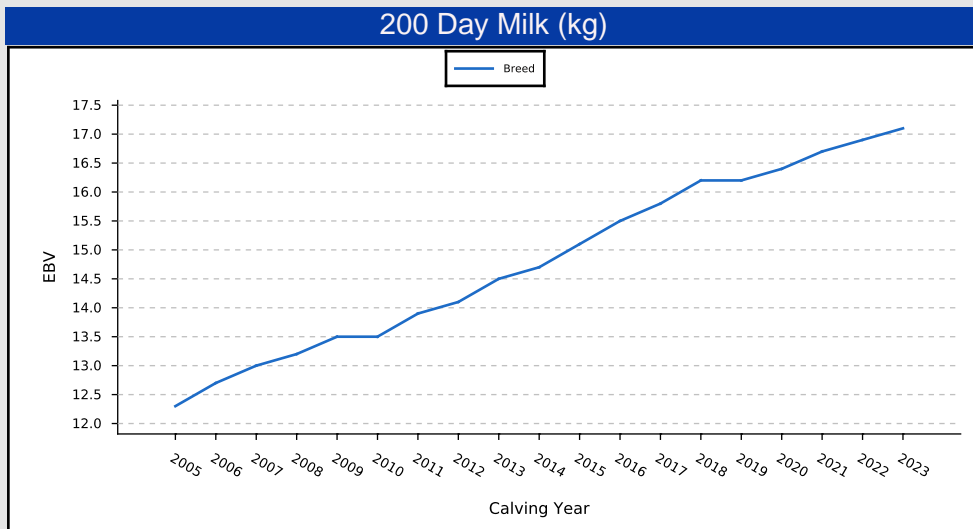
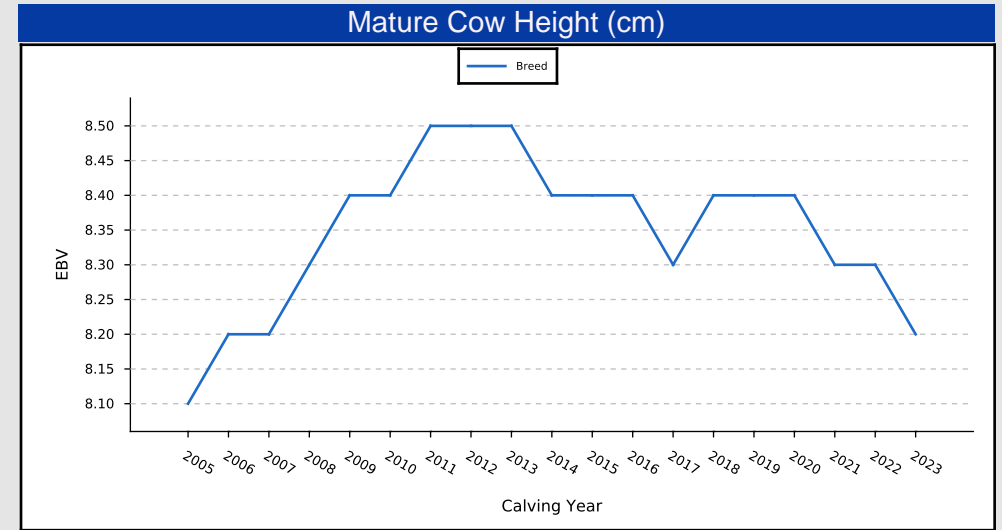
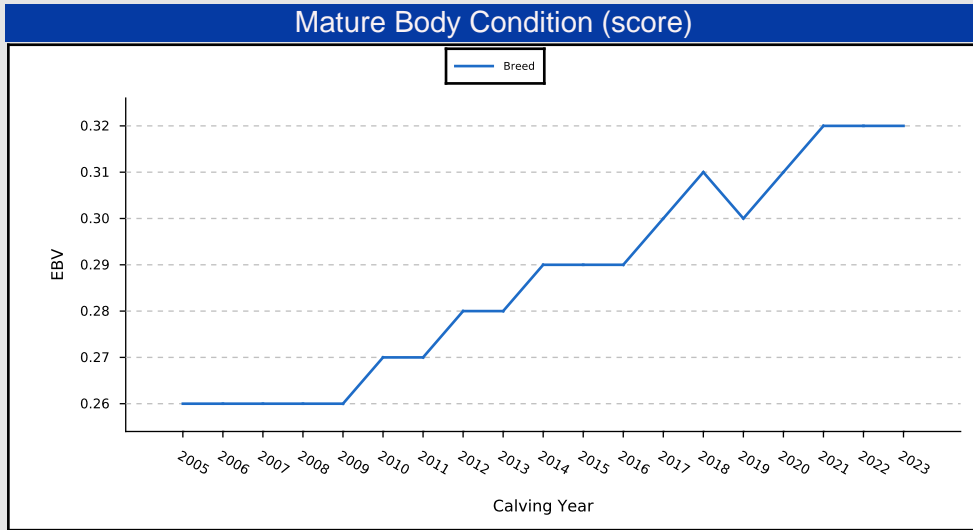


Genetic Progress By Trait

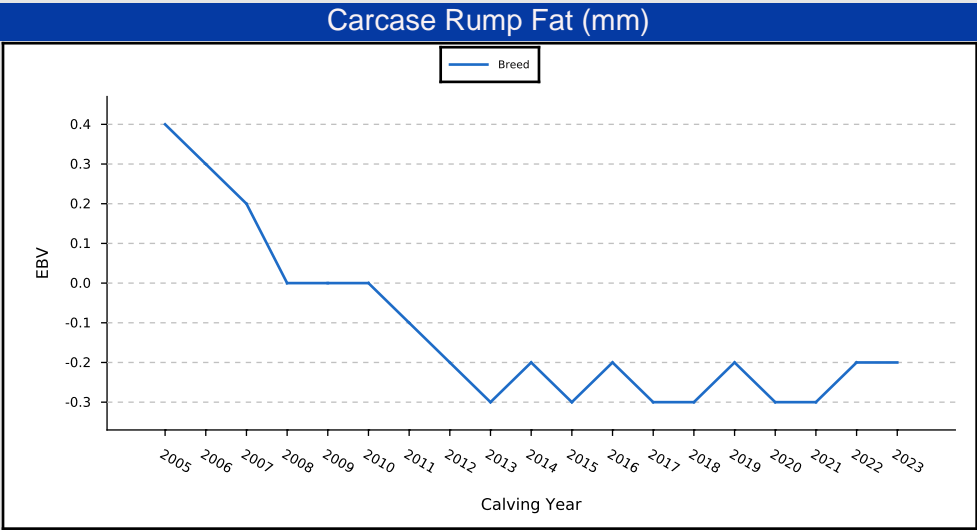
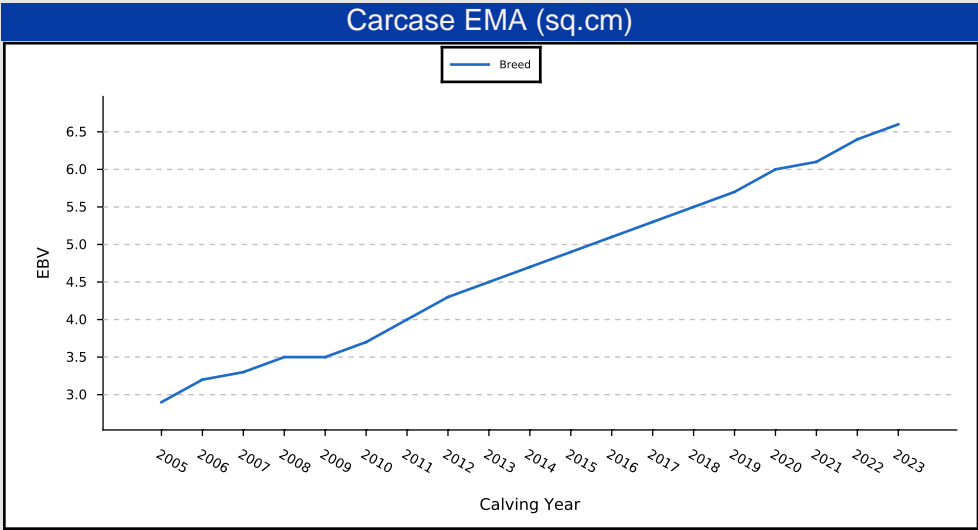
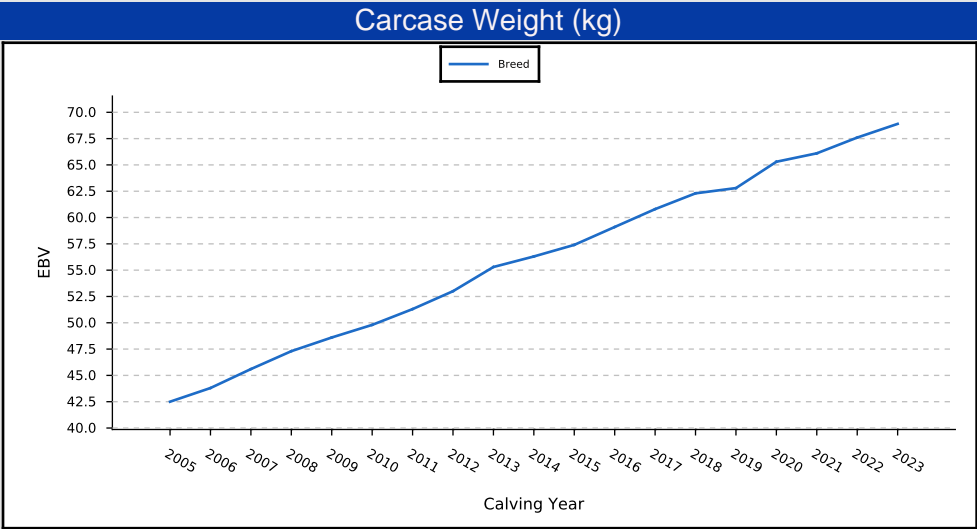
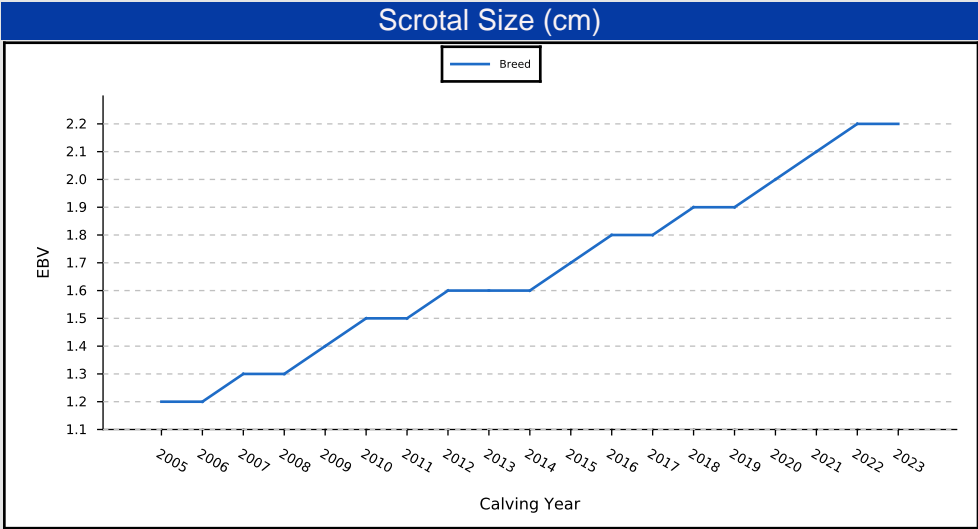
Date: December 19,

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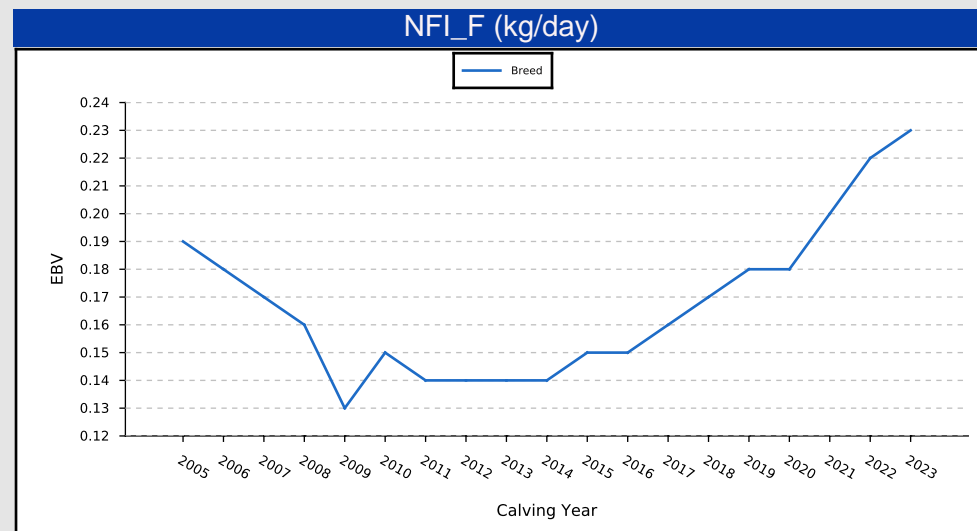
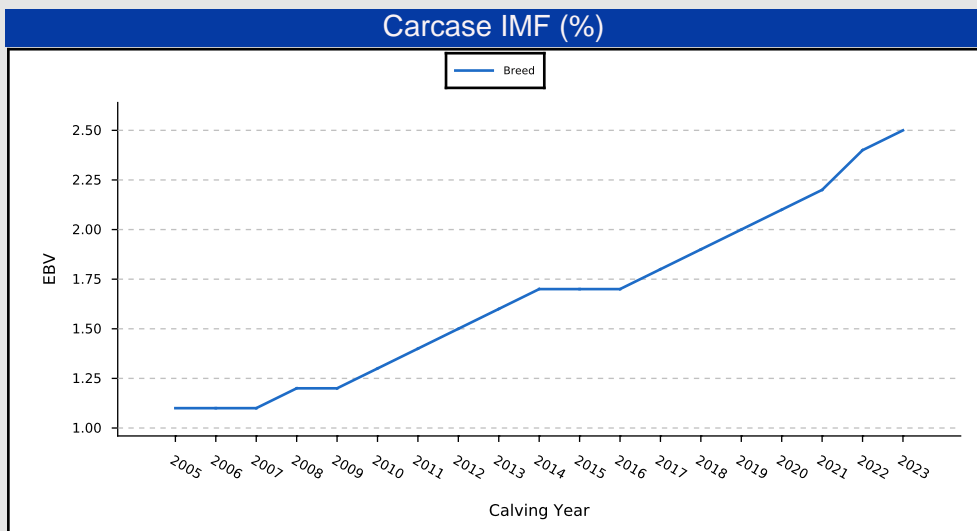
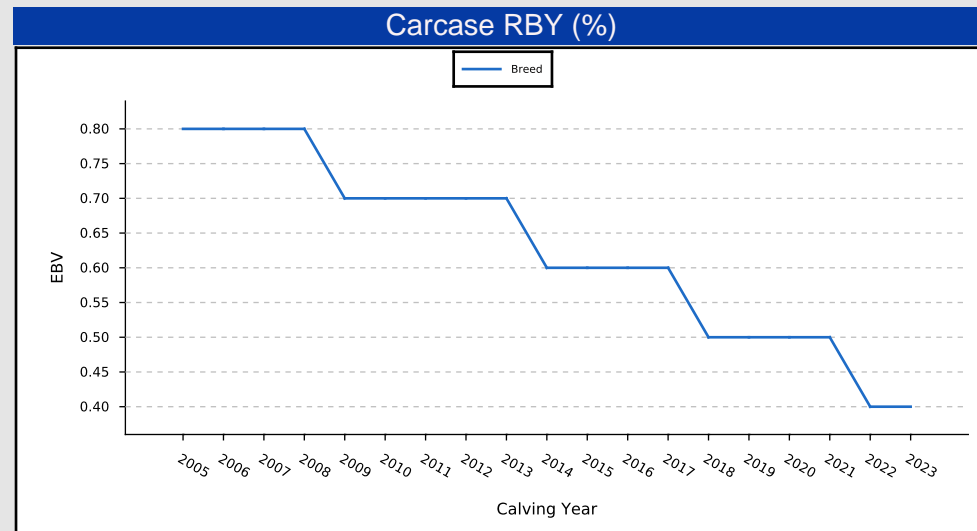
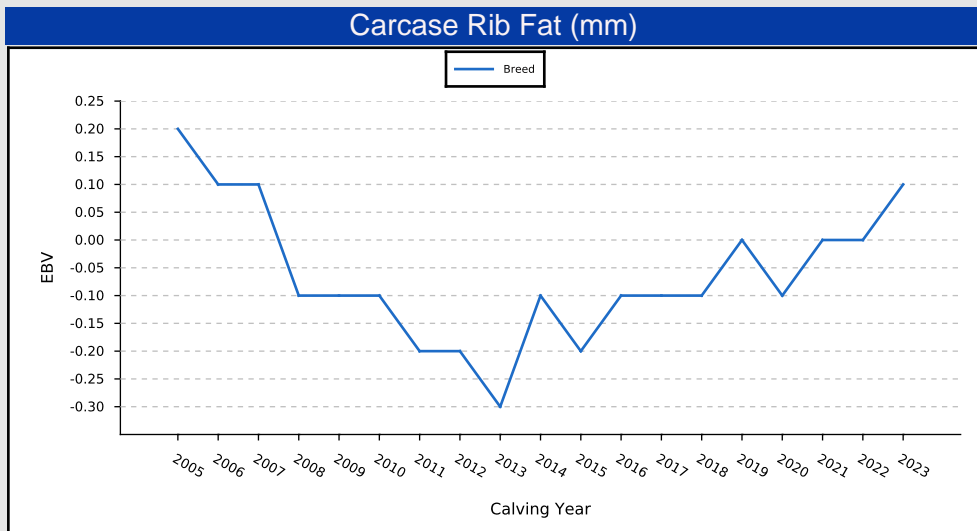
The reports below assess the change in the average EBVs of Angus seedstock animals born in each year for each respective trait.



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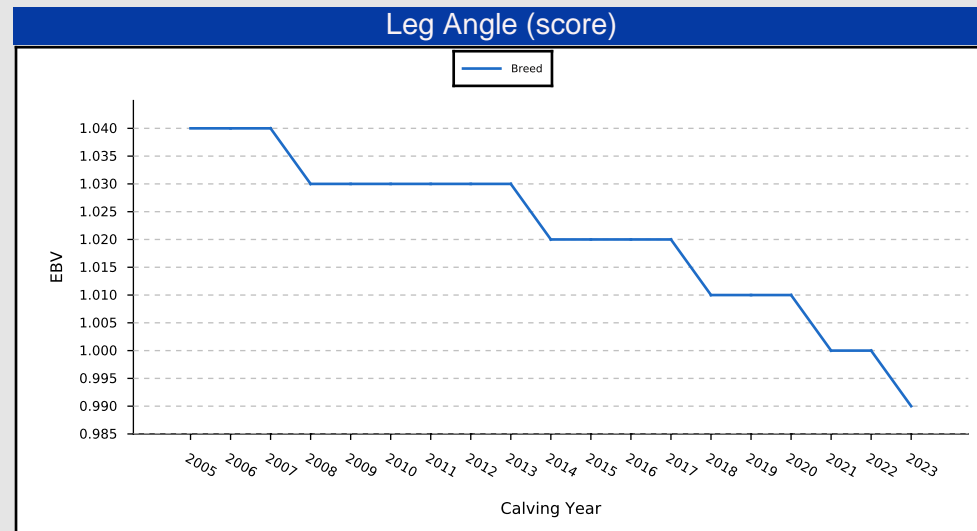
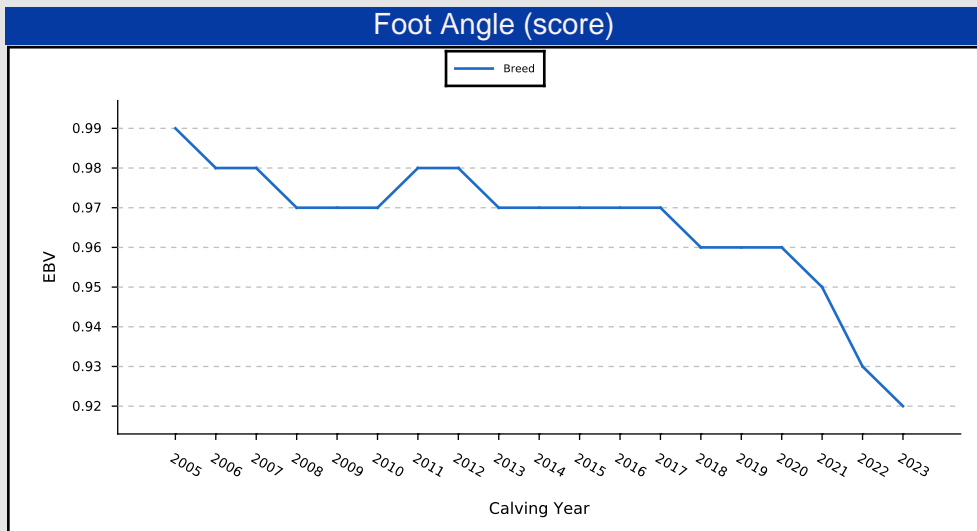
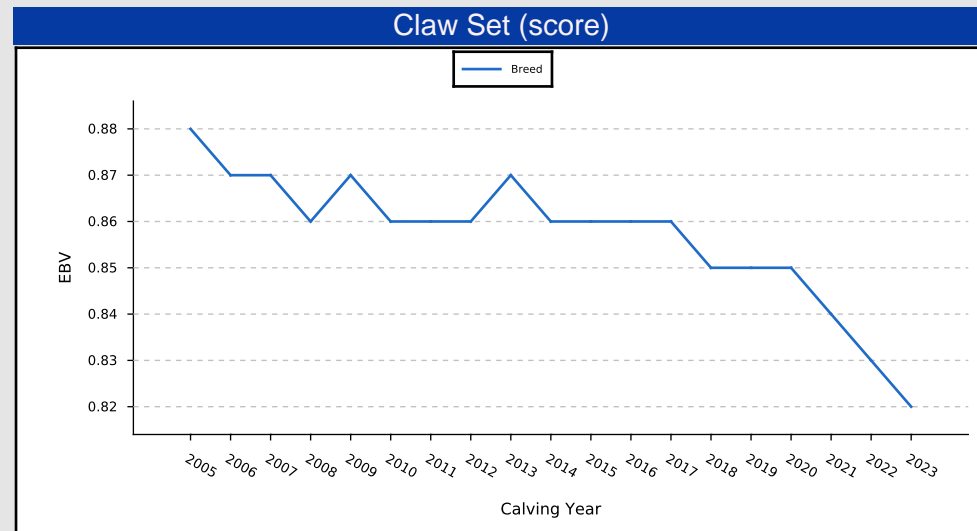
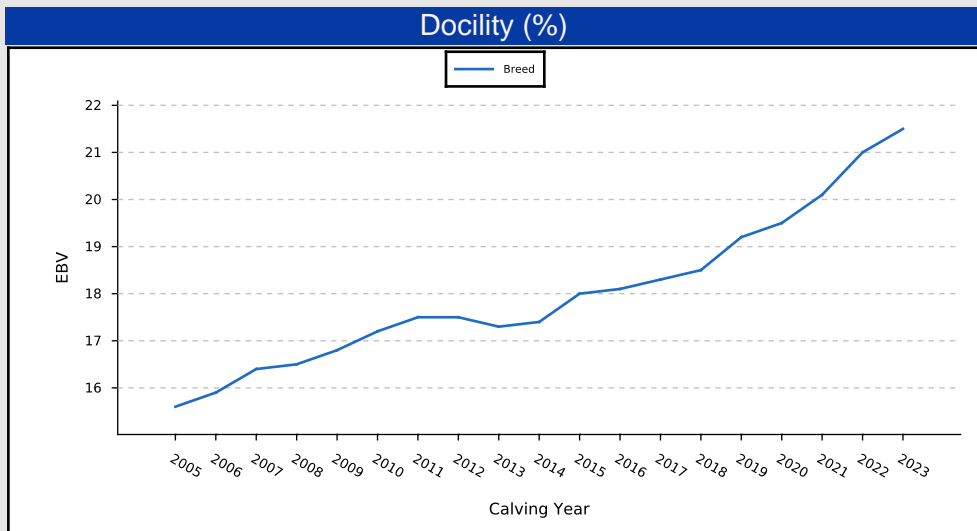


The reports below assess the change in the average EBVs of Angus seedstock animals born in each year for each respective trait.



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.



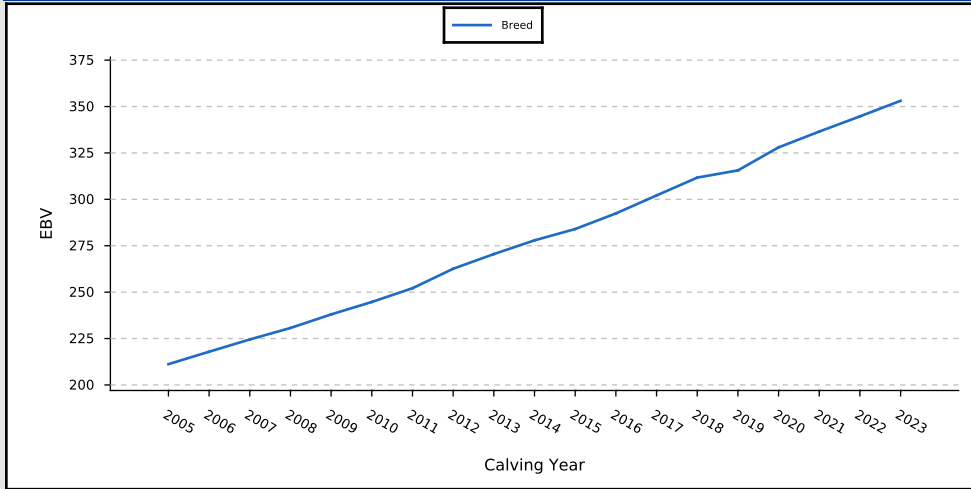
Genetic Progress By Trait

Date: December 19,

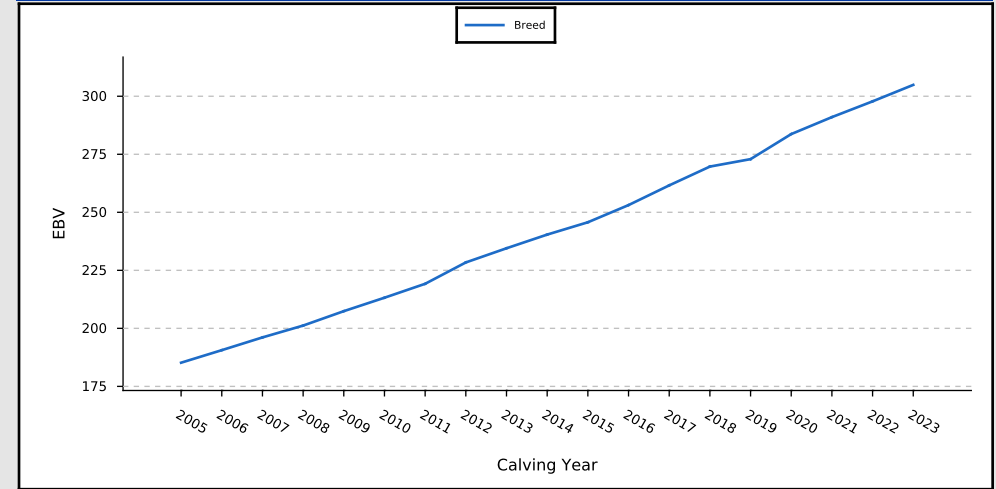
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The reports below assess the change in the average EBVs of Angus seedstock animals born in each year for each respective trait.

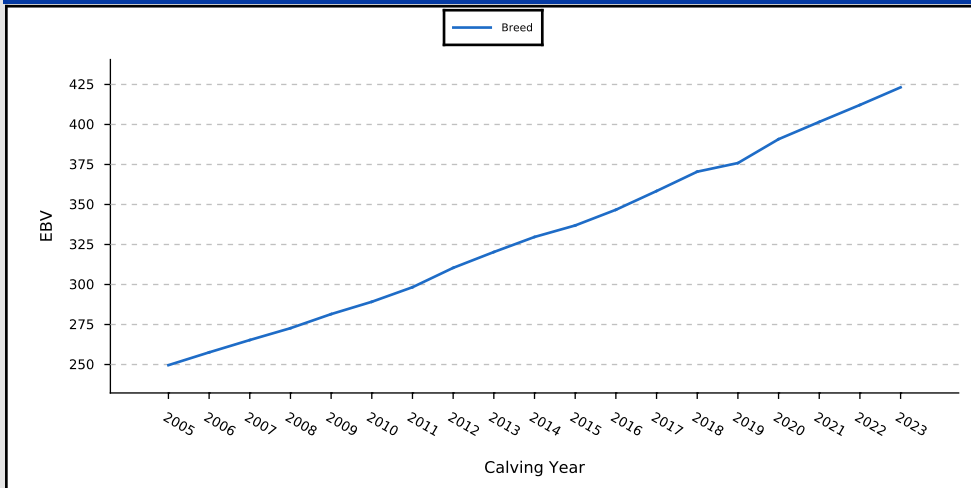
Angus Breeding Low Feed Cost (\$A-L)



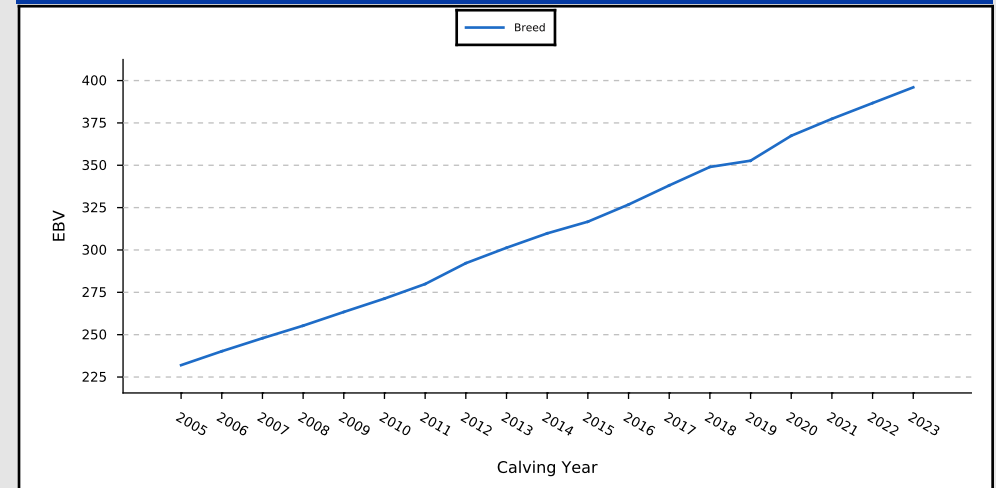
Domestic Low Feed Cost (\$D-L)



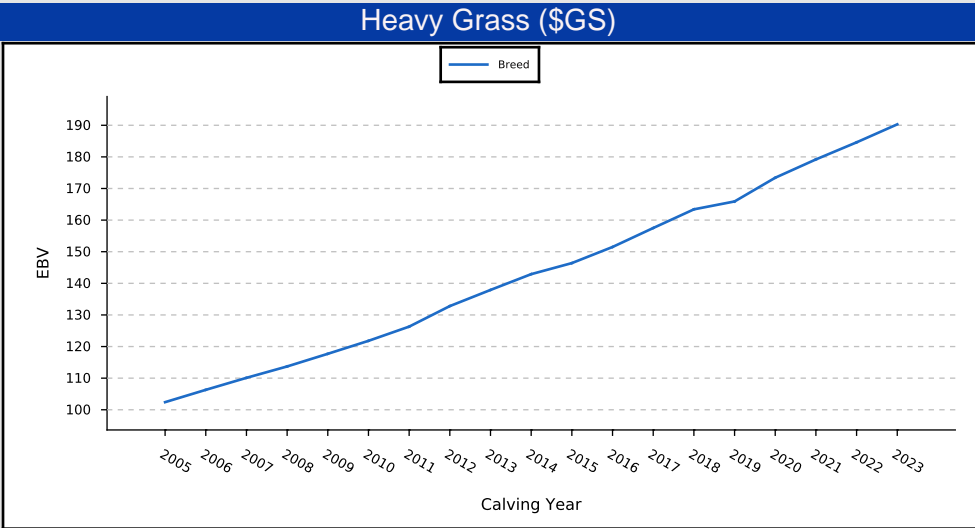
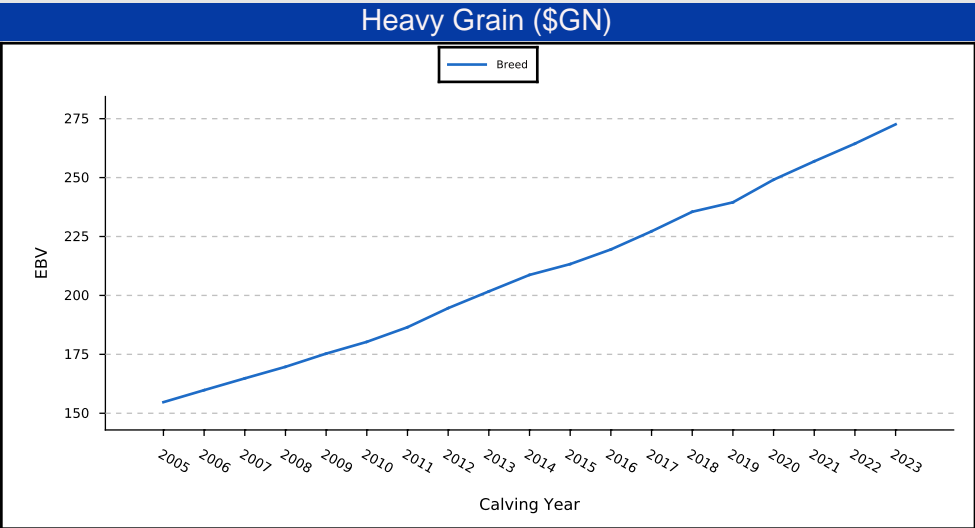
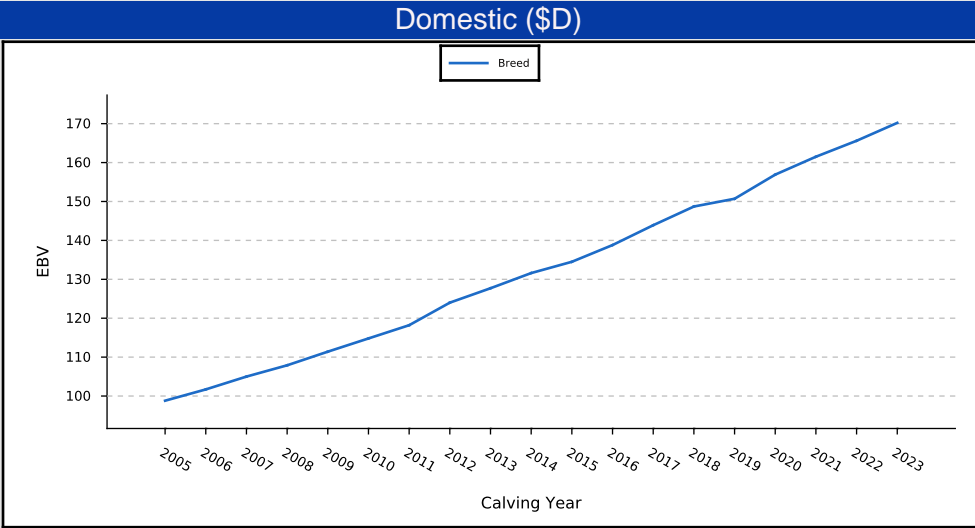
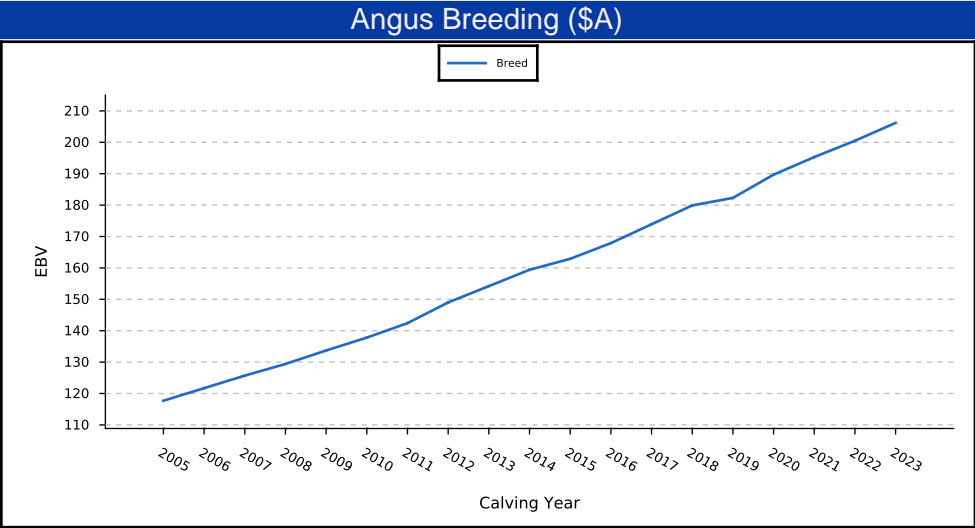
Heavy Grain Low Feed Cost (\$GN-L)



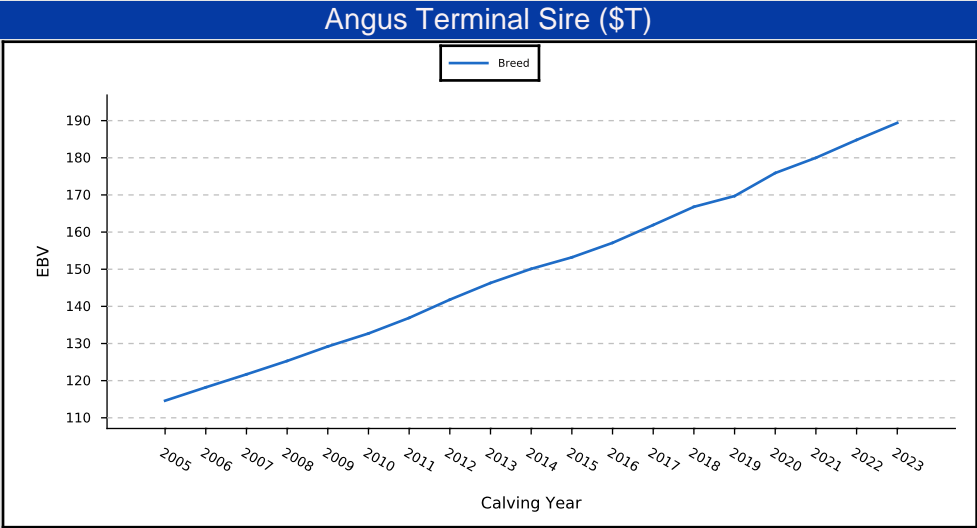
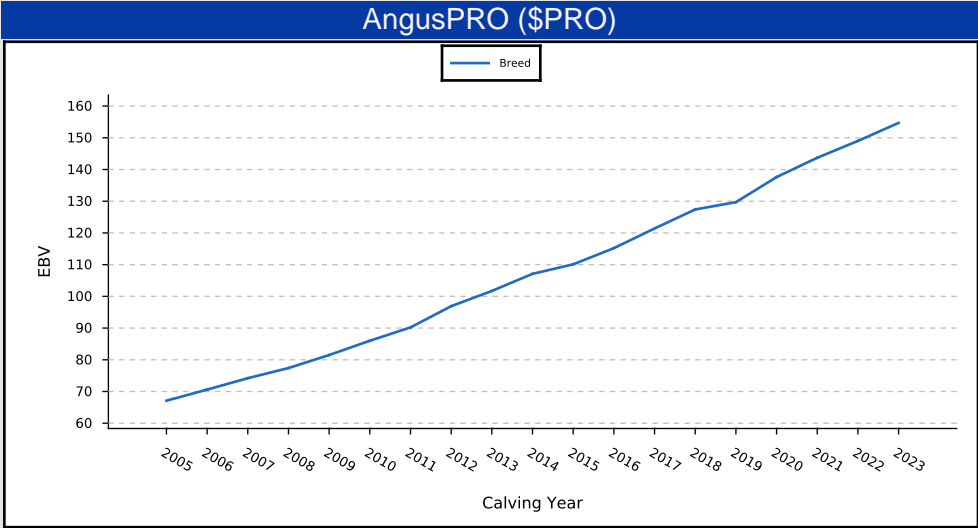
Heavy Grass Low Feed Cost (\$GS-L)



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

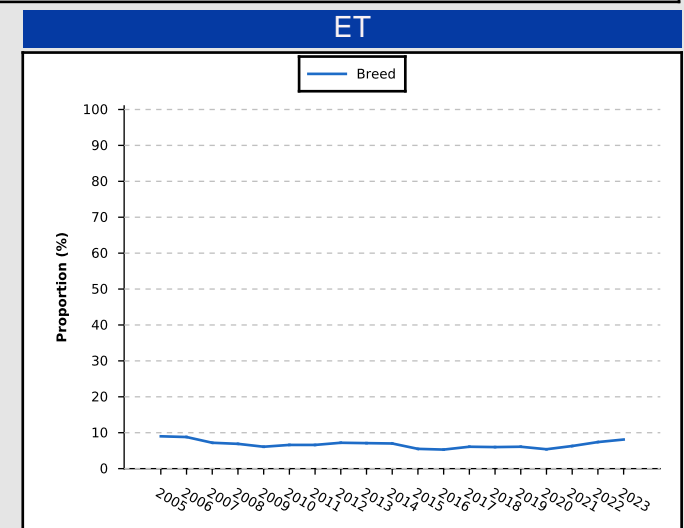
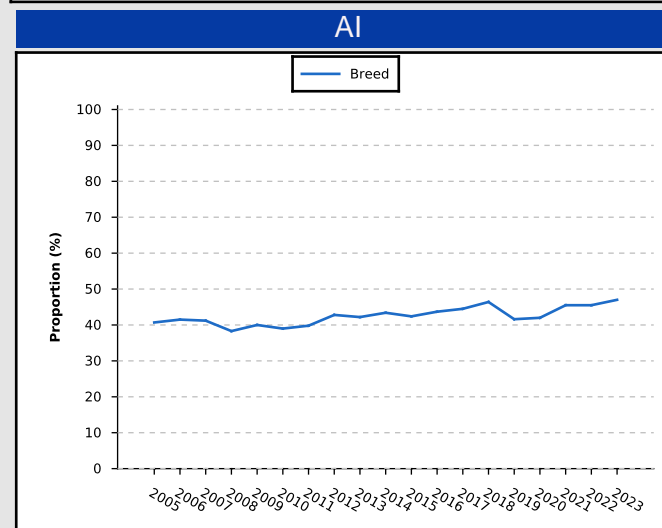
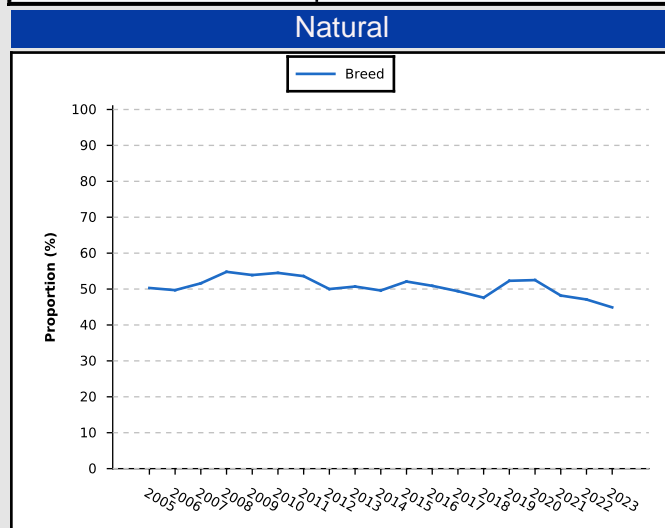
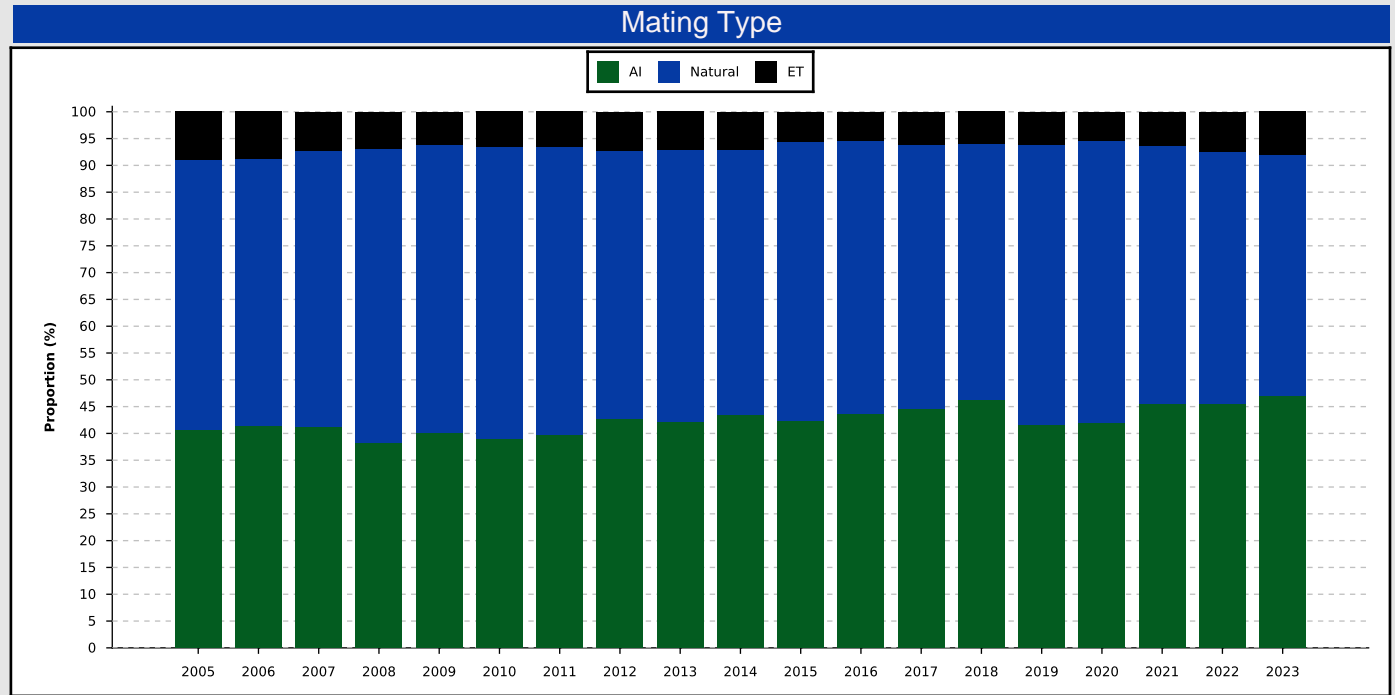


The reports below assess the change in the average EBVs of Angus seedstock animals born in each year for each respective trait.



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	69678	35045	28355	6278
2006	70739	35135	29346	6258
2007	67433	34810	27764	4859
2008	67838	37151	26004	4683
2009	66745	35984	26697	4064
2010	67426	36727	26272	4427
2011	73573	39414	29283	4876
2012	79633	39818	34101	5714
2013	82017	41572	34650	5795
2014	80881	40117	35118	5646
2015	81564	42462	34580	4522
2016	82550	42053	36092	4405
2017	86051	42495	38287	5269
2018	86912	41406	40297	5209
2019	85890	44911	35773	5206
2020	83197	43714	34954	4529
2021	95660	46127	43501	6032
2022	105051	49471	47787	7793
2023	103240	46363	48484	8393



Generation Length

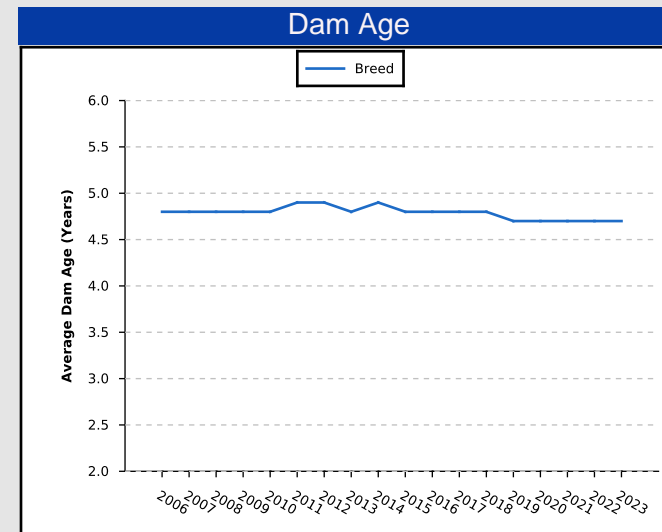
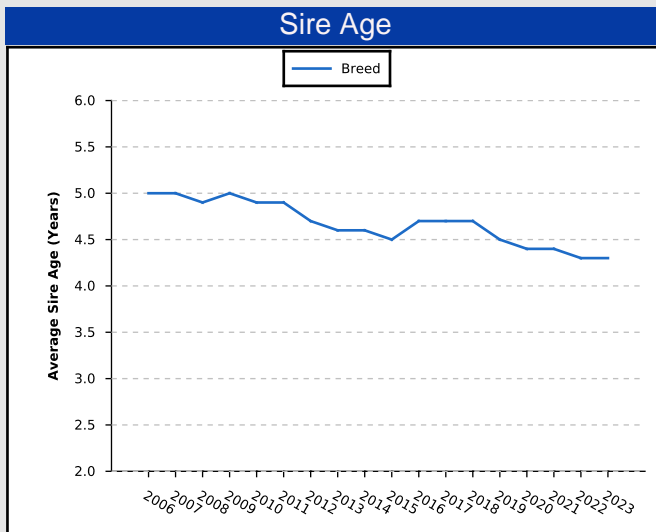
Average Sire and Dam Age By Year

Date: December 19,

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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.

Calving Year	Animals	Sire Age (Years)				Dam Age (Years)			
		All	Natural	AI	ET	All	Natural	AI	ET
2006	64564	5.0	3.7	6.2	7.7	4.8	4.7	4.4	6.4
2007	62625	5.0	3.7	6.3	7.6	4.8	4.7	4.4	6.4
2008	63359	4.9	3.7	6.4	7.8	4.8	4.8	4.4	6.7
2009	62993	5.0	3.7	6.5	7.9	4.8	4.7	4.5	6.9
2010	63494	4.9	3.7	6.1	7.6	4.8	4.8	4.5	6.5
2011	69740	4.9	3.7	6.1	7.6	4.9	4.9	4.5	6.8
2012	75076	4.7	3.7	5.6	6.7	4.9	4.9	4.5	6.7
2013	77368	4.6	3.7	5.4	6.4	4.8	4.8	4.5	6.8
2014	76282	4.6	3.7	5.4	6.7	4.9	4.9	4.5	6.9
2015	77946	4.5	3.7	5.3	6.7	4.8	4.8	4.5	6.9
2016	78549	4.7	3.8	5.5	6.7	4.8	4.9	4.5	6.8
2017	81125	4.7	3.8	5.5	6.6	4.8	4.8	4.5	6.8
2018	82232	4.7	3.7	5.5	6.5	4.8	4.8	4.4	6.9
2019	81440	4.5	3.6	5.3	6.8	4.7	4.7	4.4	6.5
2020	79628	4.4	3.6	5.2	6.0	4.7	4.7	4.3	6.8
2021	90869	4.4	3.5	5.2	6.5	4.7	4.7	4.3	6.9
2022	98539	4.3	3.5	4.9	5.8	4.7	4.7	4.3	6.8
2023	96455	4.3	3.5	4.8	5.7	4.7	4.7	4.4	6.7



Genetic Diversity

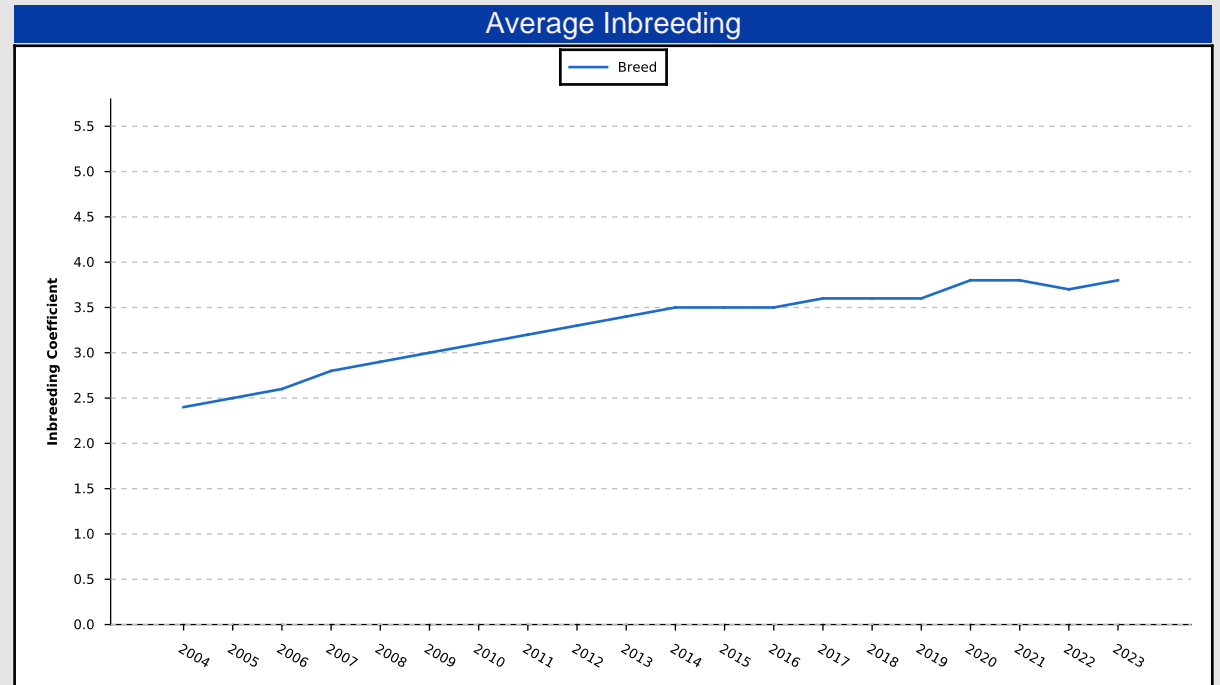
Average Inbreeding By Year

Date: December 19,

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

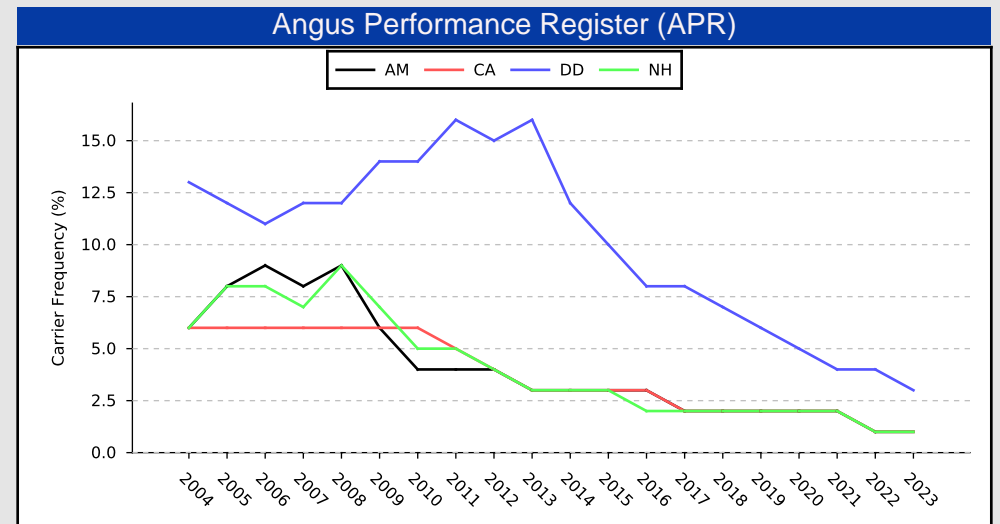
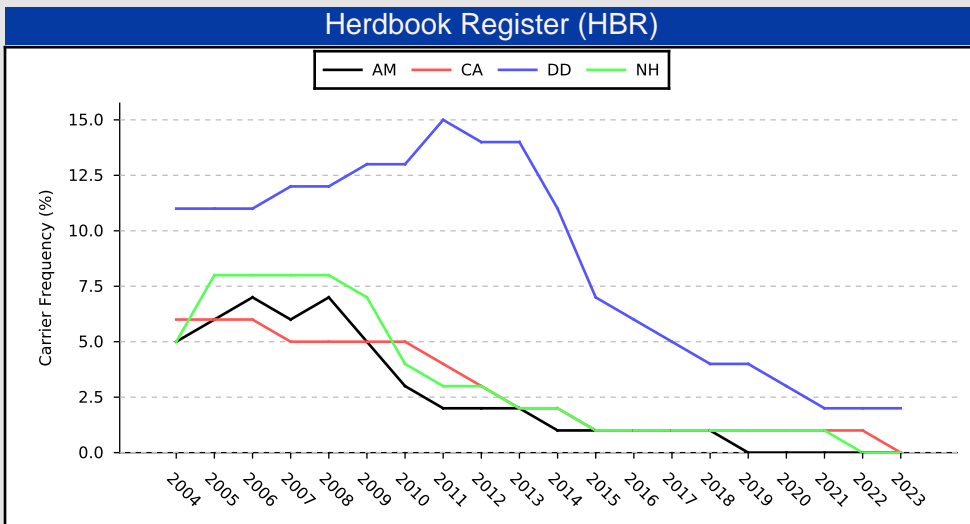
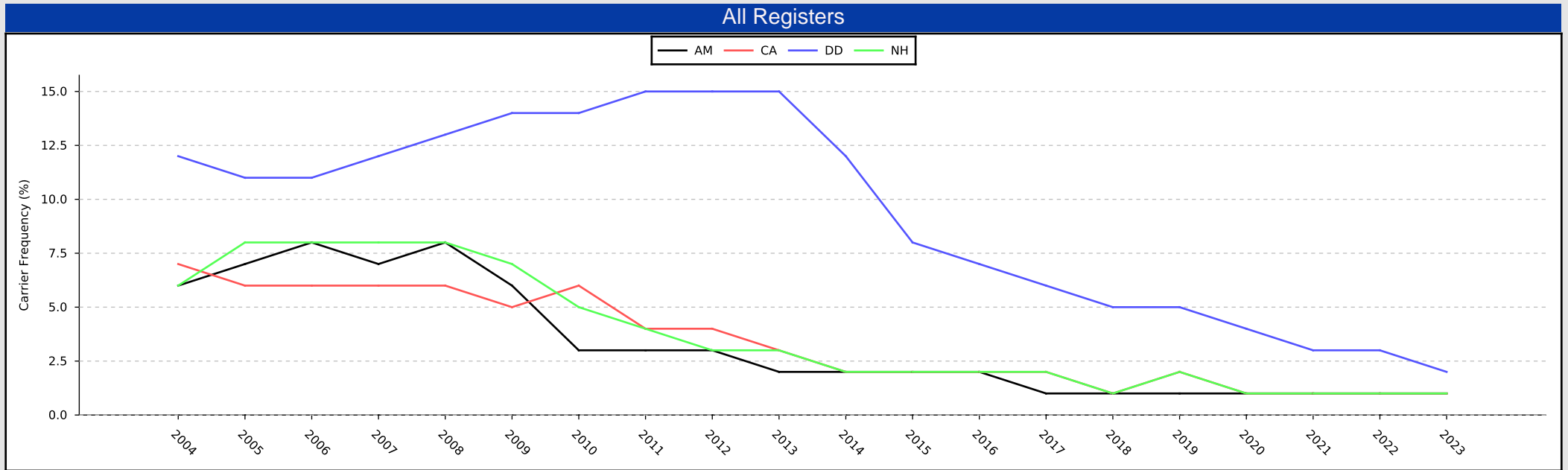
Calving Year	Animals	Inbreeding Coefficient (%)	
		Breed	
2004	61500	2.4	
2005	63461	2.5	
2006	64564	2.6	
2007	62625	2.8	
2008	63359	2.9	
2009	62993	3.0	
2010	63494	3.1	
2011	69740	3.2	
2012	75076	3.3	
2013	77368	3.4	
2014	76282	3.5	
2015	77946	3.5	
2016	78549	3.5	
2017	81125	3.6	
2018	82232	3.6	
2019	81440	3.6	
2020	79628	3.8	
2021	90869	3.8	
2022	98539	3.7	
2023	96455	3.8	



Genetic Conditions

Carrier Frequency By Register

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.



Appendix 2 Breed Genetic Trends

Date: December 19,

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

		Estimated Breeding Values																																	
		Calv-Ease		Birth		Growth			Maternal				Fert		Carcase					Feed		Temp		Structural			Selection Index								
Year	Count	Dir	Dtrs	GL	BW	200	400	600	Mwt	MBC	MCH	Milk	SS	DC	CW	EMA	RIB	P8	RBV	IMF	NFI-F	DOC	Claw	Angle	Leg	\$A	\$D	\$GN	\$GS	\$A-L	\$D-L	\$GN-L	\$GS-L	\$PRO	\$T
2005	63461	-0.1	+0.0	-2.1	+4.2	+33	+60	+78	+69	+0.26	+8.1	+12	+1.2	-3.2	+43	+2.9	+0.2	+0.4	+0.8	+1.1	+0.19	+16	+0.88	+0.99	+1.04	+118	+99	+155	+102	+211	+185	+250	+232	+67	+115
2006	64564	-0.1	+0.1	-2.3	+4.2	+34	+62	+81	+71	+0.26	+8.2	+13	+1.2	-3.3	+44	+3.2	+0.1	+0.3	+0.8	+1.1	+0.18	+16	+0.87	+0.98	+1.04	+122	+102	+160	+106	+218	+191	+258	+240	+71	+118
2007	62625	-0.3	+0.0	-2.3	+4.3	+35	+64	+83	+74	+0.26	+8.2	+13	+1.3	-3.4	+46	+3.3	+0.1	+0.2	+0.8	+1.1	+0.17	+16	+0.87	+0.98	+1.04	+126	+105	+165	+110	+225	+196	+265	+248	+74	+122
2008	63359	-0.3	+0.0	-2.4	+4.4	+36	+66	+86	+76	+0.26	+8.3	+13	+1.3	-3.4	+47	+3.5	-0.1	+0.0	+0.8	+1.2	+0.16	+17	+0.86	+0.97	+1.03	+129	+108	+170	+114	+231	+201	+273	+255	+77	+125
2009	62993	-0.1	+0.3	-2.5	+4.3	+37	+68	+89	+78	+0.26	+8.4	+14	+1.4	-3.5	+49	+3.5	-0.1	+0.0	+0.7	+1.2	+0.13	+17	+0.87	+0.97	+1.03	+134	+111	+175	+118	+238	+207	+282	+263	+82	+129
2010	63494	-0.2	+0.2	-2.6	+4.4	+38	+70	+91	+80	+0.27	+8.4	+14	+1.5	-3.6	+50	+3.7	-0.1	+0.0	+0.7	+1.3	+0.15	+17	+0.86	+0.97	+1.03	+138	+115	+180	+122	+245	+213	+289	+271	+86	+133
2011	69740	+0.0	+0.3	-2.6	+4.4	+39	+71	+93	+82	+0.27	+8.5	+14	+1.5	-3.6	+51	+4.0	-0.2	-0.1	+0.7	+1.4	+0.14	+18	+0.86	+0.98	+1.03	+142	+118	+187	+126	+252	+219	+298	+280	+90	+137
2012	75076	-0.1	+0.3	-2.8	+4.4	+41	+74	+96	+85	+0.28	+8.5	+14	+1.6	-3.8	+53	+4.3	-0.2	-0.2	+0.7	+1.5	+0.14	+18	+0.86	+0.98	+1.03	+149	+124	+195	+133	+263	+228	+310	+292	+97	+142
2013	77368	+0.0	+0.4	-2.9	+4.4	+42	+75	+98	+87	+0.28	+8.5	+15	+1.6	-3.9	+55	+4.5	-0.3	-0.3	+0.7	+1.6	+0.14	+17	+0.87	+0.97	+1.03	+154	+128	+202	+138	+271	+235	+320	+301	+102	+146
2014	76282	+0.3	+0.5	-3.1	+4.3	+42	+76	+100	+87	+0.29	+8.4	+15	+1.6	-4.1	+56	+4.7	-0.1	-0.2	+0.6	+1.7	+0.14	+17	+0.86	+0.97	+1.02	+159	+132	+209	+143	+278	+240	+330	+310	+107	+150
2015	77946	+0.4	+0.9	-3.2	+4.3	+43	+78	+102	+89	+0.29	+8.4	+15	+1.7	-4.1	+57	+4.9	-0.2	-0.3	+0.6	+1.7	+0.15	+18	+0.86	+0.97	+1.02	+163	+135	+213	+146	+284	+246	+337	+317	+110	+153
2016	78549	+0.6	+1.1	-3.4	+4.3	+44	+80	+105	+91	+0.29	+8.4	+16	+1.8	-4.2	+59	+5.1	-0.1	-0.2	+0.6	+1.7	+0.15	+18	+0.86	+0.97	+1.02	+168	+139	+220	+152	+292	+253	+347	+327	+115	+157
2017	81125	+0.9	+1.4	-3.6	+4.3	+46	+82	+107	+93	+0.30	+8.3	+16	+1.8	-4.4	+61	+5.3	-0.1	-0.3	+0.6	+1.8	+0.16	+18	+0.86	+0.97	+1.02	+174	+144	+227	+158	+302	+262	+358	+338	+121	+162
2018	82232	+1.1	+1.9	-3.8	+4.2	+47	+84	+110	+95	+0.31	+8.4	+16	+1.9	-4.5	+62	+5.5	-0.1	-0.3	+0.5	+1.9	+0.17	+19	+0.85	+0.96	+1.01	+180	+149	+236	+163	+312	+270	+371	+349	+127	+167
2019	81440	+1.3	+2.2	-3.8	+4.2	+47	+86	+111	+96	+0.30	+8.4	+16	+1.9	-4.4	+63	+5.7	+0.0	-0.2	+0.5	+2.0	+0.18	+19	+0.85	+0.96	+1.01	+182	+151	+240	+166	+316	+273	+376	+353	+130	+170
2020	79628	+1.5	+2.3	-4.0	+4.1	+49	+88	+115	+99	+0.31	+8.4	+16	+2.0	-4.6	+65	+6.0	-0.1	-0.3	+0.5	+2.1	+0.18	+20	+0.85	+0.96	+1.01	+190	+157	+249	+173	+328	+284	+391	+367	+138	+176
2021	90869	+1.8	+2.7	-4.2	+4.0	+50	+90	+116	+100	+0.32	+8.3	+17	+2.1	-4.7	+66	+6.1	+0.0	-0.3	+0.5	+2.2	+0.20	+20	+0.84	+0.95	+1.00	+195	+162	+257	+179	+337	+291	+402	+377	+144	+180
2022	98539	+2.0	+3.0	-4.4	+4.0	+51	+92	+119	+102	+0.32	+8.3	+17	+2.2	-4.8	+68	+6.4	+0.0	-0.2	+0.4	+2.4	+0.22	+21	+0.83	+0.93	+1.00	+201	+166	+264	+185	+345	+298	+412	+387	+149	+185
2023	96455	+2.3	+3.2	-4.5	+3.9	+52	+94	+121	+103	+0.32	+8.2	+17	+2.2	-4.8	+69	+6.6	+0.1	-0.2	+0.4	+2.5	+0.23	+22	+0.82	+0.92	+0.99	+206	+170	+273	+190	+353	+305	+423	+396	+155	+189

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