

North American Hereford National Cattle Evaluation

Genetic Trend

Spring 2011

Includes:

Genetic Trend: EPD & \$Index Means by Birth Year Group
Averages and Percentile Breakdown - Active Sires
Averages and Percentile Breakdown - Active Dams
Averages and Percentile Breakdown - 2009 & 2010 Calves

Spring 2011
North American Hereford National Cattle Evaluation

Genetic Trend: EPD & \$ Index Means --- All Animals --- By Birth Year Group

Birth Year	DIRECT CALV. EASE		BIRTH WEIGHT		WEANING WEIGHT		YEARLING WEIGHT		MATERNAL MILK		MATERNAL M & G		MATERNAL CALV. EASE		SCROTAL CIRCUM.		CARCASS FAT		CARCASS RIBEYE AREA		CARCASS MARBLING		BMI\$ INDEX		CEZ\$ INDEX		BI\$ INDEX		CH\$ INDEX	
	Mean	Count	Mean	Count	Mean	Count	Mean	Count	Mean	Count	Mean	Count	Mean	Count	Mean	Count	Mean	Count	Mean	Count	Mean	Count	Mean	Count	Mean	Count	Mean	Count	Mean	Count
71	0.6	19,116	-1.9	40,457	-5.1	41,173	-5.2	41,048	4.0	41,663	1.4	41,173	0.5	19,116	-0.1	24,333														
72	0.6	22,253	-1.8	46,592	-4.2	47,270	-3.9	47,158	3.9	47,736	1.8	47,270	0.5	22,253	-0.1	29,870														
73	0.7	25,737	-1.8	53,664	-4.8	54,150	-4.5	54,095	4.1	54,532	1.7	54,150	0.4	25,737	-0.1	39,194														
74	0.7	28,103	-1.7	56,110	-3.9	56,506	-3.1	56,438	4.3	56,778	2.3	56,506	0.4	28,103	-0.1	43,381														
75	0.7	30,329	-1.5	56,406	-2.6	56,723	-1.2	56,662	4.4	56,982	3.1	56,723	0.4	30,329	-0.1	45,985														
76	0.7	40,227	-1.6	173,257	-3.5	173,540	-2.5	173,496	4.1	173,800	2.3	173,540	0.3	40,227	-0.1	156,879														
77	0.8	46,366	-1.4	175,067	-2.4	175,359	-0.7	175,319	4.2	175,533	3.0	175,359	0.2	46,366	-0.1	162,508														
78	0.8	56,759	-1.2	168,517	-0.9	168,678	1.6	168,640	4.4	168,837	3.9	168,678	0.2	56,759	0.0	159,755														
79	0.8	68,436	-0.9	177,516	1.1	177,631	4.8	177,610	4.4	177,784	5.0	177,631	0.2	68,436	0.0	170,193														
80	0.8	86,732	-0.7	187,172	2.9	187,315	7.6	187,293	4.6	187,455	6.0	187,315	0.3	86,732	0.0	181,676														
81	0.8	104,735	-0.4	193,892	4.8	193,843	10.8	193,822	4.7	193,938	7.1	193,843	0.2	104,735	0.0	189,038														
82	0.7	109,607	-0.1	175,580	7.1	175,609	14.4	175,598	5.0	175,692	8.6	175,609	0.2	109,607	0.0	171,856														
83	0.7	107,418	0.2	163,172	9.1	163,247	17.6	163,235	5.3	163,305	9.8	163,247	0.1	107,418	0.0	160,244														
84	0.7	101,512	0.5	149,529	11.2	149,578	20.9	149,569	5.5	149,625	11.1	149,578	0.2	101,512	0.1	147,145														
85	0.6	96,705	0.8	138,501	13.3	138,588	24.1	138,592	5.6	138,652	12.2	138,588	0.0	96,705	0.1	136,251														
86	0.5	95,112	1.1	134,418	15.0	134,484	26.9	134,475	5.7	134,523	13.2	134,484	0.0	95,112	0.1	132,520														
87	0.4	99,946	1.4	138,355	16.8	138,518	29.8	138,513	5.8	138,554	14.2	138,518	0.0	99,946	0.1	136,488														
88	0.2	107,323	1.7	142,203	18.7	142,292	32.9	142,290	5.8	142,317	15.1	142,292	0.0	107,323	0.2	140,272														
89	0.1	111,096	2.0	142,805	20.6	142,974	35.8	142,977	5.9	142,995	16.2	142,974	0.0	111,096	0.2	141,089														
90	-0.1	118,560	2.4	148,117	22.5	148,299	39.0	148,299	6.2	148,323	17.4	148,299	0.0	118,560	0.2	146,055	-0.003	146,704	-0.08	146,704	-0.02	146,704	12.38	114,658	14.41	114,658	14.44	114,658	7.22	114,707
91	-0.2	123,850	2.6	155,180	24.2	155,390	41.6	155,387	6.4	155,411	18.5	155,390	0.0	123,850	0.2	153,348	-0.003	153,908	-0.07	153,908	-0.01	153,908	12.49	119,942	14.22	119,942	14.38	119,942	7.96	120,030
92	-0.4	131,224	2.8	159,935	25.5	160,110	43.7	160,109	6.9	160,132	19.6	160,110	-0.1	131,224	0.3	158,148	-0.003	158,858	-0.06	158,858	-0.01	158,858	12.57	127,608	14.04	127,608	14.32	127,608	8.58	127,712
93	-0.4	133,690	3.0	159,832	26.8	159,998	45.7	160,006	7.4	160,042	20.8	159,998	-0.1	133,690	0.3	157,564	-0.003	158,306	-0.05	158,306	-0.01	158,306	12.62	129,482	13.93	129,482	14.21	129,482	9.19	129,632
94	-0.5	136,254	3.2	159,673	28.0	159,830	47.5	159,831	7.9	159,877	22.0	159,830	-0.2	136,254	0.3	157,541	-0.003	158,160	-0.03	158,160	-0.02	158,160	12.68	132,280	13.80	132,280	14.13	132,280	9.78	132,429
95	-0.5	131,521	3.3	150,309	29.1	150,567	49.2	150,566	8.6	150,622	23.1	150,567	-0.2	131,521	0.3	148,201	-0.003	149,072	-0.02	149,072	-0.01	149,072	12.81	128,342	13.78	128,342	14.09	128,342	10.39	128,508
96	-0.4	125,129	3.4	142,890	30.4	142,999	51.1	143,001	9.2	143,081	24.4	142,999	-0.1	125,129	0.3	139,774	-0.002	140,890	0.00	140,890	-0.01	140,890	12.90	121,688	13.78	121,688	13.97	121,688	11.03	121,849
97	-0.4	125,512	3.4	142,273	31.3	142,339	52.5	142,338	9.7	142,534	25.4	142,339	-0.1	125,512	0.4	139,670	-0.003	140,561	0.01	140,561	-0.01	140,561	13.09	122,077	13.78	122,077	14.02	122,077	11.54	122,238
98	-0.3	126,311	3.5	141,509	32.3	141,542	54.1	141,549	10.1	141,768	26.3	141,542	-0.1	126,311	0.4	137,758	-0.002	139,142	0.03	139,142	-0.01	139,142	13.26	122,143	13.85	122,143	14.04	122,143	12.04	122,353
99	-0.3	123,480	3.6	136,223	33.1	136,281	55.3	136,282	10.5	136,649	27.1	136,281	0.0	123,480	0.4	133,962	-0.002	134,862	0.04	134,862	-0.01	134,862	13.42	120,441	13.86	120,441	14.08	120,441	12.46	120,639
00	-0.3	120,627	3.7	132,185	34.2	132,228	56.9	132,231	11.2	132,797	28.3	132,228	0.0	120,627	0.4	130,451	-0.002	130,966	0.05	130,966	-0.01	130,966	13.53	118,031	13.79	118,031	14.04	118,031	13.04	118,219
01	-0.2	123,171	3.7	135,800	35.0	135,874	58.2	135,872	11.5	136,191	29.0	135,874	0.0	123,171	0.5	133,400	-0.002	134,721	0.07	134,721	-0.01	134,721	13.64	120,911	13.84	120,911	13.98	120,911	13.53	121,063
02	-0.2	117,483	3.7	129,226	35.9	129,238	59.7	129,236	12.2	129,556	30.2	129,238	0.1	117,483	0.5	127,196	-0.001	128,381	0.08	128,381	0.00	128,381	13.77	115,708	13.83	115,708	13.94	115,708	14.11	115,783
03	-0.2	117,429	3.7	128,712	37.0	128,713	61.3	128,708	12.7	129,049	31.2	128,713	0.2	117,429	0.5	126,519	-0.001	127,649	0.10	127,649	0.00	127,649	14.00	115,705	13.91	115,705	13.96	115,705	14.70	115,770
04	-0.1	115,843	3.7	127,733	37.9	127,721	62.7	127,718	13.1	128,075	32.1	127,721	0.3	115,843	0.5	124,974	-0.001	126,861	0.12	126,861	0.00	126,861	14.22	114,045	13.96	114,045	14.01	114,045	15.27	114,099
05	-0.1	114,166	3.7	124,937	39.1	124,946	64.6	124,946	13.9	125,200	33.5	124,946	0.3	114,166	0.6	123,223	-0.001	124,338	0.14	124,338	0.01	124,338	14.32	112,956	13.92	112,956	13.94	112,956	15.86	113,172
06	0.0	110,740	3.7	122,025	40.2	122,015	66.3	122,015	14.7	122,096	34.9	122,015	0.5	110,740	0.6	120,782	0.000	121,538	0.16	121,538	0.01	121,538	14.54	109,784	14.00	109,784	13.95	109,784	16.52	109,812
07	0.1	107,595	3.7	117,780	41.4	117,775	68.1	117,776	15.4	117,785	36.1	117,775	0.6	107,595	0.6	117,054	0.000	117,464	0.18	117,464	0.02	117,464	14.84	106,935	14.10	106,935	14.05	106,935	17.21	106,938
08	0.1	102,877	3.7	114,160	42.3	114,158	69.6	114,157	15.8	114,159	37.0	114,158	0.6	102,877	0.6	113,537	0.001	114,079	0.20	114,079	0.03	114,079	15.09	102,299	14.17	102,299	14.14	102,299	17.82	102,317
09	0.3	95,218	3.6	104,231	43.4	104,230	71.2	104,229	16.5	104,230	38.2	104,230	0.7	95,218	0.7	103,515	0.002	104,146	0.22	104,146	0.04	104,146	15.38	94,551	14.30	94,551	14.23	94,551	18.48	94,566
10	0.4	55,216	3.6	59,343	45.0	59,339	73.6	59,339	18.1	59,339	40.6	59,339	0.9	55,216	0.7	59,002	0.003	59,291	0.24	59,291	0.05	59,291	15.83	54,841	14.47	54,841	14.38	54,841	19.51	54,850

and Bold text indicates base year

Percentile Breakdowns of EPDs

A percentile chart can be used to get a better idea of how an animal ranks in the current group of equivalent animals in the Hereford population in North America. The charts are divided into five-percent increments for each trait. The top five-percent are further divided into one-percent increments.

Hereford cattle can be grouped into three very broad categories. The first would be active sires in the North American Hereford population. These are bulls who have sired at least ten total calves in the last three years. Your herdsire or potential herdsire can be compared to this population of bulls. Very few bulls rank at the top in every trait because of inherent genetic correlations. With careful evaluation you should be able to find bulls to match your specifications. Note, no animal will fall exactly on all even percentile increments. Simply utilize the even percentile level in which the EPD has exceeded.

Since EPDs may be used to compare animals in addition to active sires, additional information is provided. The average EPDs, ranges and a percentile breakdown for yearling and two-year-old cattle born in 2009 and 2010 are also provided. This table is useful for comparing the EPDs of animals that are typically for sale or a potential herd replacement candidate.

The breakdown chart and EPD ranges for the active cows with a calf reported since Jan. 1, 2009 allow one to compare his herd with all active cows in the Hereford population in North America.

**American Hereford Association
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Averages and Percentile Breakdown - Active Sires

	Direct	Birth	Weaning	Yearling	Milk	M&G	Maternal	Scrotal	Carcass			\$ Indexes			
	Calv. Ease	Weight	Weight	Weight			Calv.Ease	Circum.	FAT	REA	MARB	BMI\$	CEZ\$	BII\$	CHB\$
Averages															
Average	0.2	3.6	45	74	18	40	0.9	0.7	0.002	0.25	0.04	15.64	14.28	14.20	19.45
Low	-25.8	14.2	-93	-109	-21	-41	-10.7	-1.0	0.162	-1.63	-0.44	-2.21	-11.53	-1.75	-46.24
High	13.7	-6.2	84	144	48	81	9.9	2.8	-0.121	1.14	1.06	44.93	29.87	44.01	45.61
Percentile Breakdown															
Upper 1%	7.3	-1.8	69	114	34	61	6.2	1.8	-0.059	0.79	0.42	29.15	22.64	27.13	32.74
2%	6.5	-1.0	66	109	32	59	5.6	1.6	-0.049	0.73	0.36	26.98	21.59	24.68	31.12
3%	5.9	-0.5	64	106	31	57	5.3	1.5	-0.044	0.68	0.32	25.21	20.98	23.50	30.02
4%	5.4	-0.1	63	104	30	56	4.9	1.4	-0.041	0.65	0.30	24.15	20.59	22.51	29.16
5%	5.1	0.1	62	102	29	55	4.7	1.4	-0.038	0.63	0.28	23.33	20.23	21.62	28.50
10%	4.0	1.0	58	96	26	52	3.8	1.2	-0.027	0.54	0.20	20.95	18.69	19.34	26.38
15%	3.3	1.5	56	91	25	50	3.2	1.0	-0.021	0.48	0.16	19.61	17.76	18.04	24.99
20%	2.7	1.9	54	88	24	48	2.7	0.9	-0.017	0.44	0.13	18.67	17.09	17.14	23.87
25%	2.2	2.3	52	85	22	47	2.3	0.9	-0.014	0.40	0.11	17.88	16.50	16.34	22.91
30%	1.8	2.6	50	83	21	46	2.0	0.8	-0.011	0.36	0.09	17.22	16.01	15.75	22.14
35%	1.4	2.9	49	81	20	44	1.7	0.8	-0.008	0.33	0.07	16.68	15.58	15.26	21.45
40%	1.1	3.2	48	79	20	43	1.3	0.7	-0.005	0.30	0.06	16.17	15.16	14.75	20.69
45%	0.7	3.4	47	77	19	42	1.1	0.7	-0.002	0.27	0.04	15.71	14.73	14.30	20.02
50%	0.3	3.7	46	75	18	41	0.8	0.6	0.000	0.25	0.03	15.27	14.31	13.86	19.38
55%	0.0	3.9	44	73	17	40	0.5	0.6	0.003	0.22	0.02	14.81	13.89	13.43	18.73
60%	-0.3	4.2	43	71	16	39	0.3	0.5	0.006	0.19	0.00	14.30	13.48	12.99	18.09
65%	-0.7	4.4	42	68	16	37	0.0	0.5	0.009	0.16	-0.01	13.86	13.05	12.52	17.42
70%	-1.2	4.7	40	66	15	36	-0.3	0.4	0.013	0.13	-0.03	13.37	12.60	12.04	16.72
75%	-1.6	5.0	39	64	13	34	-0.6	0.4	0.016	0.10	-0.04	12.87	12.10	11.53	15.90
80%	-2.1	5.4	37	61	12	32	-0.9	0.3	0.021	0.07	-0.06	12.28	11.49	10.99	15.00
85%	-2.8	5.8	35	57	10	30	-1.3	0.3	0.027	0.03	-0.08	11.60	10.82	10.30	13.90
90%	-3.7	6.3	32	53	8	28	-1.8	0.2	0.035	-0.02	-0.10	10.72	9.92	9.38	12.56
95%	-4.9	7.1	28	46	6	24	-2.7	0.2	0.048	-0.09	-0.14	9.32	8.55	8.06	10.65
100%	-25.8	14.2	-93	-109	-21	-41	-10.7	-1.0	0.162	-1.63	-0.44	-2.21	-11.53	-1.75	-46.24

6,709 sires produced at least 10 calves since January 1, 2008.

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Averages and Percentile Breakdown - Active Dams

	Direct	Birth	Weaning	Yearling	Milk	M&G	Maternal	Scrotal	Carcass			\$ Indexes			
	Calv. Ease	Weight	Weight	Weight			Calv.Ease	Circum.	FAT	REA	MARB	BMI\$	CEZ\$	BII\$	CHB\$
Averages															
Average	0.0	3.7	41	67	15	36	0.5	0.6	0.001	0.16	0.02	14.54	14.00	13.92	16.65
Low	-19.4	13.2	-19	-28	-17	-12	-9.4	-1.1	0.175	-0.68	-0.51	0.39	-5.79	-1.24	-3.60
High	11.2	-6.8	75	129	46	73	9.5	2.3	-0.132	1.07	0.74	39.92	27.32	36.53	42.95
Percentile Breakdown															
Upper 1%	5.6	-0.8	60	101	32	57	5.4	1.4	-0.046	0.61	0.32	24.76	20.91	23.51	27.85
2%	5.0	-0.2	58	97	30	54	4.7	1.3	-0.039	0.56	0.27	22.93	20.02	21.90	26.45
3%	4.5	0.2	57	94	28	53	4.3	1.2	-0.035	0.52	0.24	21.84	19.46	20.86	25.58
4%	4.2	0.5	56	92	28	52	3.9	1.1	-0.032	0.49	0.22	21.09	19.04	20.17	24.92
5%	3.9	0.7	55	91	27	51	3.7	1.1	-0.029	0.47	0.20	20.54	18.69	19.64	24.40
10%	3.0	1.4	52	85	24	48	2.9	1.0	-0.022	0.40	0.14	18.79	17.57	18.03	22.62
15%	2.4	1.9	50	82	22	45	2.4	0.9	-0.018	0.35	0.11	17.80	16.85	17.09	21.41
20%	1.9	2.2	48	79	21	44	2.0	0.8	-0.014	0.31	0.09	17.06	16.29	16.42	20.48
25%	1.5	2.5	46	76	20	42	1.7	0.7	-0.011	0.27	0.07	16.46	15.81	15.85	19.69
30%	1.2	2.8	45	74	19	41	1.4	0.7	-0.009	0.24	0.06	15.96	15.39	15.36	18.99
35%	0.9	3.0	44	72	18	39	1.1	0.6	-0.007	0.22	0.04	15.51	15.01	14.92	18.35
40%	0.6	3.3	43	70	17	38	0.9	0.6	-0.005	0.19	0.03	15.09	14.66	14.51	17.73
45%	0.3	3.5	42	68	16	37	0.7	0.5	-0.003	0.17	0.02	14.69	14.32	14.12	17.13
50%	0.0	3.7	41	67	16	36	0.5	0.5	-0.001	0.15	0.01	14.31	14.00	13.73	16.56
55%	-0.2	3.9	40	65	15	35	0.3	0.4	0.002	0.13	0.00	13.93	13.67	13.36	15.99
60%	-0.5	4.2	38	63	14	33	0.0	0.4	0.004	0.11	-0.01	13.54	13.34	12.98	15.44
65%	-0.8	4.4	37	61	13	32	-0.2	0.3	0.006	0.08	-0.02	13.14	12.99	12.60	14.84
70%	-1.1	4.6	36	59	12	31	-0.4	0.3	0.009	0.06	-0.03	12.74	12.62	12.19	14.20
75%	-1.5	4.9	35	57	11	29	-0.7	0.2	0.012	0.04	-0.05	12.29	12.22	11.75	13.51
80%	-1.9	5.2	33	55	10	27	-1.0	0.2	0.015	0.01	-0.06	11.79	11.76	11.25	12.76
85%	-2.4	5.5	32	52	8	25	-1.4	0.1	0.020	-0.02	-0.08	11.21	11.21	10.67	11.90
90%	-3.1	6.0	30	48	6	23	-1.9	0.1	0.026	-0.05	-0.09	10.48	10.48	9.93	10.78
95%	-4.1	6.7	26	43	3	20	-2.7	0.0	0.036	-0.11	-0.13	9.38	9.31	8.80	9.18
100%	-19.4	13.2	-19	-28	-17	-12	-9.4	-1.1	0.175	-0.68	-0.51	0.39	-5.79	-1.24	-3.60

115,518 cows calving since January 1, 2009.

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North American Hereford National Cattle Evaluation**

Averages and Percentile Breakdown - 2009 & 2010 Calves

	Direct	Birth	Weaning	Yearling	Milk	M&G	Maternal	Scrotal	Carcass			\$ Indexes			
	Calv. Ease	Weight	Weight	Weight					FAT	REA	MARB	BMI\$	CEZ\$	BII\$	CHB\$
Averages															
Average	0.3	3.6	44	72	17	39	0.8	0.7	0.003	0.22	0.04	15.54	14.36	14.29	18.85
Low	-14.1	14.2	-29	-27	-11	-6	-7.6	-0.8	0.141	-0.83	-0.42	1.93	-0.43	-3.43	-15.23
High	10.0	-6.3	81	134	42	72	9.5	2.3	-0.120	1.05	0.87	37.23	27.30	35.02	41.36
Percentile Breakdown															
Upper 1%	5.8	-1.0	63	103	31	57	4.8	1.5	-0.040	0.63	0.34	25.55	20.89	23.69	29.79
2%	5.1	-0.3	61	100	29	55	4.3	1.3	-0.034	0.58	0.30	23.92	20.09	22.03	28.34
3%	4.7	0.0	59	97	28	54	4.0	1.3	-0.030	0.55	0.27	22.94	19.57	21.14	27.48
4%	4.4	0.3	58	96	27	53	3.7	1.2	-0.028	0.52	0.25	22.20	19.19	20.47	26.83
5%	4.1	0.6	57	94	27	52	3.5	1.2	-0.026	0.50	0.23	21.63	18.87	19.96	26.33
10%	3.3	1.3	54	89	24	49	2.9	1.0	-0.020	0.44	0.18	19.83	17.84	18.28	24.60
15%	2.7	1.8	53	86	23	48	2.5	0.9	-0.016	0.39	0.14	18.71	17.13	17.28	23.43
20%	2.2	2.2	51	83	22	46	2.2	0.9	-0.012	0.36	0.11	17.94	16.60	16.56	22.52
25%	1.9	2.5	50	81	21	45	1.9	0.8	-0.010	0.33	0.09	17.32	16.14	16.00	21.77
30%	1.5	2.7	48	79	20	44	1.6	0.8	-0.008	0.31	0.08	16.79	15.74	15.51	21.09
35%	1.2	3.0	47	77	19	43	1.4	0.7	-0.005	0.28	0.06	16.33	15.37	15.08	20.46
40%	0.9	3.2	46	76	19	42	1.2	0.6	-0.003	0.26	0.05	15.92	15.03	14.70	19.89
45%	0.6	3.4	45	74	18	41	1.0	0.6	-0.001	0.24	0.04	15.53	14.70	14.34	19.32
50%	0.4	3.6	44	72	17	40	0.8	0.6	0.001	0.22	0.03	15.17	14.37	14.00	18.77
55%	0.1	3.8	43	71	17	39	0.6	0.5	0.003	0.20	0.02	14.82	14.05	13.66	18.22
60%	-0.2	4.0	42	69	16	38	0.4	0.4	0.005	0.18	0.01	14.47	13.72	13.33	17.67
65%	-0.5	4.3	41	67	15	37	0.2	0.4	0.007	0.16	0.00	14.11	13.38	12.97	17.11
70%	-0.8	4.5	40	65	15	35	0.0	0.3	0.010	0.14	-0.01	13.74	13.01	12.61	16.51
75%	-1.2	4.8	39	63	14	34	-0.3	0.3	0.013	0.11	-0.03	13.34	12.62	12.22	15.86
80%	-1.6	5.0	37	61	13	32	-0.5	0.3	0.017	0.09	-0.04	12.91	12.17	11.80	15.15
85%	-2.1	5.4	36	58	11	31	-0.9	0.2	0.021	0.06	-0.05	12.41	11.62	11.29	14.29
90%	-2.7	5.8	33	55	10	28	-1.3	0.2	0.027	0.02	-0.07	11.76	10.92	10.64	13.21
95%	-3.7	6.6	30	50	7	24	-1.9	0.1	0.037	-0.03	-0.10	10.79	9.83	9.66	11.63
100%	-14.1	14.2	-29	-27	-11	-6	-7.6	-0.8	0.141	-0.83	-0.42	1.93	-0.43	-3.43	-15.23

155,024 calves born in 2009 and 2010.