

# Pan American Hereford Cattle Evaluation

## **Genetic Trend**

Fall 2010

### 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 - 2008 & 2009 Calves



## **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 & South America (Argentina, Canada, United States & Uruguay). 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 Pan 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 2008 and 2009 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, 2008 allow one to compare his herd with all active cows in the Hereford population in North & South America.

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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\$
<b>Averages</b>															
Average	0.2	3.7	44	73	17	39	0.8	0.7	0.002	0.24	0.04	15.83	14.31	14.62	19.00
Low	-25.9	13.0	-93	-110	-21	-41	-10.6	-1.0	0.167	-1.64	-0.45	-2.01	-11.36	-3.17	-45.93
High	13.8	-6.3	80	136	51	82	13.8	2.9	-0.117	1.17	0.86	45.02	30.26	43.60	41.56
<b>Percentile Breakdown</b>															
Upper 1%	7.3	-1.8	68	113	34	60	6.2	1.7	-0.057	0.78	0.42	29.03	22.74	27.36	32.23
2%	6.3	-1.0	65	108	32	58	5.6	1.6	-0.048	0.72	0.35	26.94	21.78	25.27	30.63
3%	5.8	-0.5	63	105	31	57	5.3	1.5	-0.043	0.67	0.32	25.53	21.10	24.02	29.48
4%	5.3	-0.2	62	102	29	55	4.9	1.4	-0.040	0.64	0.29	24.34	20.58	22.91	28.64
5%	5.0	0.1	61	101	29	54	4.7	1.4	-0.037	0.61	0.27	23.53	20.15	22.11	27.99
10%	3.9	1.0	57	94	26	51	3.7	1.2	-0.027	0.53	0.19	21.13	18.60	19.79	25.83
15%	3.2	1.6	55	90	24	49	3.1	1.1	-0.022	0.47	0.15	19.74	17.71	18.40	24.54
20%	2.6	2.0	53	87	23	47	2.6	1.0	-0.018	0.42	0.12	18.82	17.01	17.49	23.42
25%	2.2	2.4	51	84	22	46	2.2	0.9	-0.014	0.39	0.10	18.10	16.45	16.78	22.46
30%	1.7	2.7	50	82	21	45	1.8	0.8	-0.011	0.35	0.08	17.48	15.95	16.21	21.68
35%	1.3	3.0	48	80	20	43	1.5	0.8	-0.008	0.32	0.06	16.88	15.55	15.70	20.95
40%	0.9	3.2	47	78	19	42	1.2	0.7	-0.005	0.29	0.05	16.36	15.14	15.23	20.29
45%	0.6	3.5	46	76	18	41	0.9	0.7	-0.003	0.26	0.04	15.91	14.71	14.75	19.62
50%	0.2	3.7	45	74	17	40	0.7	0.6	0.000	0.23	0.02	15.45	14.31	14.33	18.97
55%	-0.1	4.0	43	71	17	39	0.4	0.6	0.003	0.21	0.01	15.02	13.90	13.90	18.30
60%	-0.4	4.2	42	69	16	37	0.2	0.5	0.005	0.18	0.00	14.55	13.51	13.45	17.70
65%	-0.8	4.5	41	67	15	36	-0.1	0.5	0.008	0.15	-0.01	14.10	13.10	12.99	17.02
70%	-1.2	4.7	39	65	14	35	-0.4	0.4	0.012	0.12	-0.03	13.61	12.65	12.53	16.26
75%	-1.7	5.0	38	62	13	33	-0.7	0.4	0.016	0.09	-0.04	13.12	12.12	12.00	15.43
80%	-2.2	5.4	36	59	11	31	-1.0	0.3	0.021	0.06	-0.06	12.50	11.56	11.42	14.51
85%	-2.8	5.8	34	56	10	29	-1.4	0.3	0.027	0.02	-0.08	11.80	10.88	10.71	13.45
90%	-3.6	6.3	31	52	8	27	-1.9	0.2	0.035	-0.03	-0.10	10.93	10.08	9.71	12.17
95%	-4.8	7.1	28	45	5	23	-2.8	0.2	0.047	-0.10	-0.14	9.49	8.73	8.31	10.22
100%	-25.9	13.0	-93	-110	-21	-41	-10.6	-1.0	0.167	-1.64	-0.45	-2.01	-11.36	-3.17	-45.93

7,935 sires produced at least 10 calves since January 1, 2007.

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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\$
<b>Averages</b>															
Average	-0.1	3.7	40	65	15	34	0.4	0.6	0.000	0.15	0.02	14.83	14.06	14.42	16.29
Low	-19.5	13.8	-17	-24	-17	-12	-10.8	-1.2	0.198	-0.69	-0.51	0.69	-6.30	-1.48	-7.84
High	12.0	-6.6	76	130	46	73	10.3	2.4	-0.131	1.10	0.73	42.04	28.49	38.62	41.62
<b>Percentile Breakdown</b>															
Upper 1%	5.6	-0.7	60	100	31	56	5.3	1.4	-0.045	0.61	0.31	24.98	21.01	23.91	27.55
2%	4.9	-0.1	57	96	29	53	4.6	1.3	-0.039	0.55	0.26	23.12	20.12	22.29	26.11
3%	4.4	0.2	56	93	28	52	4.2	1.2	-0.035	0.51	0.23	22.02	19.50	21.27	25.20
4%	4.1	0.5	55	91	27	51	3.9	1.2	-0.032	0.48	0.21	21.26	19.07	20.60	24.56
5%	3.8	0.7	54	90	26	50	3.6	1.1	-0.030	0.46	0.19	20.70	18.73	20.06	24.04
10%	2.9	1.4	51	84	24	47	2.8	1.0	-0.023	0.39	0.13	19.02	17.60	18.51	22.22
15%	2.3	1.9	49	80	22	44	2.3	0.9	-0.018	0.34	0.10	18.05	16.89	17.60	21.03
20%	1.9	2.2	47	78	20	43	1.9	0.8	-0.015	0.30	0.08	17.34	16.33	16.92	20.10
25%	1.5	2.5	46	75	19	41	1.6	0.8	-0.012	0.26	0.06	16.75	15.85	16.37	19.33
30%	1.1	2.8	44	73	18	40	1.3	0.7	-0.009	0.23	0.05	16.26	15.44	15.88	18.63
35%	0.8	3.0	43	71	17	38	1.0	0.6	-0.007	0.21	0.04	15.81	15.07	15.45	17.98
40%	0.5	3.3	42	69	17	37	0.8	0.6	-0.005	0.18	0.03	15.39	14.72	15.04	17.36
45%	0.3	3.5	41	67	16	36	0.6	0.6	-0.003	0.16	0.02	15.01	14.39	14.66	16.78
50%	0.0	3.7	40	65	15	35	0.4	0.5	-0.001	0.14	0.01	14.62	14.07	14.28	16.21
55%	-0.3	3.9	39	63	14	33	0.2	0.4	0.001	0.12	0.00	14.24	13.74	13.89	15.64
60%	-0.6	4.1	38	62	13	32	0.0	0.4	0.004	0.10	-0.01	13.86	13.41	13.51	15.07
65%	-0.9	4.4	36	60	12	31	-0.2	0.3	0.006	0.07	-0.02	13.46	13.06	13.12	14.49
70%	-1.2	4.6	35	58	11	29	-0.5	0.3	0.008	0.05	-0.03	13.05	12.69	12.70	13.85
75%	-1.5	4.9	34	56	10	28	-0.8	0.3	0.011	0.03	-0.04	12.60	12.29	12.25	13.18
80%	-2.0	5.2	33	53	9	26	-1.1	0.2	0.015	0.00	-0.06	12.10	11.84	11.74	12.44
85%	-2.5	5.5	31	51	7	24	-1.5	0.2	0.019	-0.02	-0.07	11.51	11.29	11.15	11.57
90%	-3.1	6.0	29	47	5	22	-2.0	0.1	0.025	-0.06	-0.09	10.76	10.56	10.41	10.46
95%	-4.1	6.7	25	42	3	19	-2.8	0.1	0.034	-0.11	-0.12	9.63	9.38	9.29	8.81
100%	-19.5	13.8	-17	-24	-17	-12	-10.8	-1.2	0.198	-0.69	-0.51	0.69	-6.30	-1.48	-7.84

141,972 cows calving since January 1, 2008.

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**Averages and Percentile Breakdown - 2008 & 2009 Calves**

	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\$
<b>Averages</b>															
Average	0.2	3.6	43	71	16	38	0.7	0.7	0.002	0.21	0.04	15.77	14.38	14.74	18.42
Low	-19.5	14.2	-33	-35	-9	-6	-7.8	-1.5	0.144	-0.88	-0.40	-3.04	-5.53	-6.58	-16.97
High	11.7	-7.0	79	132	41	71	9.5	2.5	-0.119	1.05	0.86	41.42	27.85	37.82	42.71
<b>Percentile Breakdown</b>															
Upper 1%	5.7	-0.9	62	102	30	56	4.8	1.5	-0.040	0.63	0.34	26.19	21.03	24.49	29.37
2%	5.1	-0.3	60	99	28	54	4.2	1.4	-0.034	0.57	0.29	24.37	20.19	22.79	27.98
3%	4.6	0.1	58	96	27	53	3.9	1.3	-0.031	0.54	0.26	23.27	19.67	21.74	27.08
4%	4.3	0.4	57	95	27	52	3.7	1.2	-0.028	0.52	0.24	22.47	19.27	21.03	26.45
5%	4.1	0.6	56	93	26	51	3.5	1.2	-0.026	0.50	0.22	21.87	18.95	20.47	25.93
10%	3.2	1.3	54	88	24	48	2.8	1.1	-0.020	0.43	0.17	19.95	17.88	18.71	24.13
15%	2.6	1.8	52	85	22	47	2.4	1.0	-0.016	0.38	0.13	18.87	17.16	17.70	22.95
20%	2.2	2.2	50	82	21	45	2.1	0.9	-0.013	0.35	0.10	18.10	16.61	17.00	22.06
25%	1.8	2.5	49	80	20	44	1.8	0.8	-0.010	0.32	0.09	17.50	16.15	16.45	21.30
30%	1.4	2.8	47	78	20	43	1.5	0.8	-0.008	0.29	0.07	16.99	15.74	15.98	20.62
35%	1.1	3.0	46	76	19	42	1.3	0.7	-0.006	0.27	0.06	16.54	15.37	15.56	20.00
40%	0.8	3.2	45	74	18	41	1.1	0.7	-0.004	0.25	0.05	16.14	15.03	15.18	19.43
45%	0.5	3.5	44	73	18	40	0.9	0.6	-0.002	0.23	0.04	15.77	14.69	14.82	18.87
50%	0.3	3.7	43	71	17	38	0.7	0.6	0.000	0.21	0.03	15.42	14.37	14.48	18.32
55%	0.0	3.9	42	69	16	37	0.5	0.5	0.002	0.19	0.02	15.06	14.05	14.13	17.78
60%	-0.3	4.1	41	68	15	36	0.3	0.5	0.005	0.17	0.01	14.71	13.72	13.80	17.23
65%	-0.6	4.3	40	66	15	35	0.1	0.4	0.007	0.15	0.00	14.36	13.38	13.45	16.67
70%	-0.9	4.5	39	64	14	34	-0.1	0.4	0.010	0.12	-0.01	13.99	13.02	13.08	16.08
75%	-1.3	4.8	38	62	13	33	-0.4	0.3	0.013	0.10	-0.02	13.58	12.63	12.68	15.43
80%	-1.7	5.1	36	60	12	31	-0.6	0.3	0.016	0.08	-0.04	13.15	12.18	12.23	14.72
85%	-2.1	5.4	35	57	10	29	-0.9	0.2	0.020	0.05	-0.05	12.64	11.65	11.71	13.88
90%	-2.8	5.9	33	54	8	27	-1.4	0.2	0.026	0.01	-0.07	11.97	10.95	11.05	12.84
95%	-3.8	6.6	29	48	6	23	-2.0	0.1	0.036	-0.04	-0.09	10.97	9.86	10.04	11.27
100%	-19.5	14.2	-33	-35	-9	-6	-7.8	-1.5	0.144	-0.88	-0.40	-3.04	-5.53	-6.58	-16.97

214,563 calves born in 2008 and 2009.