

Table 1: Expected progeny difference (EPD) and \$Values averages, star	ndard
deviations (SD) and minimum/maximum	

Production:Calving ease direct, %1,066,0676,661,44725-3619Birth weight, lb.5,541,3857,531,3211.42.4-11.515.8Weaning direct, lb.6,225,1027,531,3212318-6191Yearling weight, lb.3,079,3567,531,3214133-82146Yearling height, in.579,8031,063,983.4.4-2.02.6Scrotal circumference, cm531,4771,171,352.17.45-3.573.30Maternal:Calving ease maternal, %1,066,0676,661,44744-3219Maternal milk, lb.6,225,1027,531,321109-3848Mature weight, lb.142,731328,6932030-138252Mature height, in.142,731328,693.5.3-3.85.1Carcass:Carcass:Carcass weight, lb.85,4521,869,64468-6458Marbling score85,4521,869,644.05.18881.2012th-rib fat thickness, in.1,090,2661,095,5111,099,091.005.02012.3.178Ultrasound intramuscular fat, % Wean Value (\$M), \$/head22,32624.075.10-12.9145.17Feedlot Value (\$M), \$/head22,32621.7512.92-44.7183.19Grid Value (\$M), \$/head18,80938.1312.73	Trait	No. records	No. EPD	Avg.	SD	<u>Min.</u>	Max.	
Birth weight, Ib. 5,541,385 7,531,321 1.4 2.4 -11.5 15.8 Weaning direct, Ib. 6,225,102 7,531,321 23 18 -61 91 Yearling weight, Ib. 3,079,356 7,531,321 41 33 -82 146 Yearling height, in. 579,803 1,063,983 .4 .4 -2.0 2.6 Scrotal circumference, cm 531,477 1,171,352 .17 .45 -3.57 3.30 Maternal Calving ease maternal, % 1,066,067 6,661,447 4 -32 19 Maternal milk, Ib. 6,225,102 7,531,321 10 9 -38 48 Mature weight, Ib. 142,731 328,693 20 30 -138 252 Mature height, in. 142,731 328,693 .5 .3 -3.8 5.1 Carcass: Carcass weight, Ib. 85,452 1,860,175 .19 .20 .71 1.35 Ribeye area, sq. in. 85,452 1,869,644 6 8 -64 58 Marbling score <t< td=""><td>Production:</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Production:							
Weaning direct, lb. $6,225,102$ $7,531,321$ 23 18 -61 91 Yearling weight, lb. $3,079,356$ $7,531,321$ 41 33 -82 146 Yearling height, in. $579,803$ $1,063,983$ 4 4 -2.0 2.6 Scrotal circumference, cm $531,477$ $1,171,352$ $.17$ $.45$ -3.57 3.30 Maternal:Calving ease maternal, % $1,066,067$ $6,661,447$ 4 4 -32 19 Maternal milk, lb. $6,225,102$ $7,531,321$ 10 9 -38 48 Mature weight, lb. $142,731$ $328,693$ 20 30 -138 252 Mature height, in. $142,731$ $328,693$ $.5$ $.3$ -3.8 5.1 Carcass:Carcass:Carcass: $1,869,644$ 6 8 -64 58 Marbling score $85,452$ $1,869,644$ $.05$ $.18$ 88 1.20 12th-rib fat thickness, in. $1,090,266$ $1,095,511$ $1,099,091$ $1.099,091$ 1.292 -44.71 83.19 Wean Value (\$M), \$/head $22,326$ 24.07 5.10 -12.91 45.17 Feedlot Value (\$F), \$/head $18,809$ 20.12 8.74 21.19 48.58 Beef Value (\$B), \$/head $18,809$ 38.13 12.73 -41.54 77.63 Cow Energy (\$EN), savings, 18 889 38.13 12.73 -41.54 77.63	Calving ease direct, %	1,066,067	6,661,447	2	5	-36	19	
Yearling weight, lb. 3,079,356 7,531,321 41 33 -82 146 Yearling height, in. 579,803 1,063,983 .4 .4 -2.0 2.6 Scrotal circumference, cm 531,477 1,171,352 .17 .45 -3.57 3.30 Maternal:	Birth weight, lb.	5,541,385	7,531,321	1.4	2.4	-11.5	15.8	
Yearling height, in. $579,803$ $1,063,983$ $.4$ $.4$ $.2.0$ 2.6 Scrotal circumference, cm $531,477$ $1,171,352$ $.17$ $.45$ -3.57 3.30 Maternal:Calving ease maternal, % $1,066,067$ $6,661,447$ 4 4 -32 19 Maternal milk, lb. $6,225,102$ $7,531,321$ 10 9 -38 48 Mature weight, lb. $142,731$ $328,693$ 20 30 -138 252 Mature height, in. $142,731$ $328,693$ $.5$ $.3$ -3.8 5.1 Carcass:Carcass: $85,452$ $1,869,644$ 6 8 -64 58 Marbling score $85,452$ $1,869,644$ $.05$ $.18$ 88 1.20 12th-rib fat thickness, in. $85,452$ $1,869,644$ $.05$ $.18$ 88 1.20 12th-rib fat thickness, in. $1,090,266$ $1,095,511$ $1,090,266$ $1,095,511$ $1,090,266$ Ultrasound ribeye area, sq. in. $1,090,266$ $1,095,511$ 12.92 -44.71 83.19 Wean Value (\$W), \$/head $22,326$ 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head $18,809$ 38.13 12.73 -41.54 77.63 Cow Energy (\$EN), savings, $18,809$ 38.13 12.73 -41.54 77.63	Weaning direct, lb.	6,225,102	7,531,321	23	18	-61	91	
Scrotal circumference, cm 531,477 1,171,352 .17 .45 -3.57 3.30 Maternal: Calving ease maternal, % 1,066,067 6,661,447 4 4 -32 19 Maternal milk, lb. 6,225,102 7,531,321 10 9 -38 48 Mature weight, lb. 142,731 328,693 20 30 -138 252 Mature height, in. 142,731 328,693 .5 .3 -3.8 5.1 Carcass: Carcass: Carcass: Carcass:	Yearling weight, lb.	3,079,356	7,531,321	41	33	-82	146	
Maternal: Calving ease maternal, % 1,066,067 6,661,447 4 4 -32 19 Maternal milk, lb. 6,225,102 7,531,321 10 9 -38 48 Mature weight, lb. 142,731 328,693 20 30 -138 252 Mature height, in. 142,731 328,693 .5 .3 -3.8 5.1 Carcass: Carcass weight, lb. 85,452 1,869,644 6 8 -64 58 Marbling score 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 1,090,266 1,095,511 1,099,091 .015 .020 123 .178 Ultrasound ribeye area, sq. in. 1,099,091 1,099,091 .05 .10 -12.91 45.17 Feedlot Value (\$W), \$/head 22,326 21.75 12.92 -44.71 83.19 Grid Value (\$E), \$/head 18,809 38.13 12.73	Yearling height, in.	579,803	1,063,983	.4	.4	-2.0	2.6	
Calving ease maternal, % 1,066,067 6,661,447 4 4 -32 19 Maternal milk, lb. 6,225,102 7,531,321 10 9 -38 48 Mature weight, lb. 142,731 328,693 20 30 -138 252 Mature height, in. 142,731 328,693 .5 .3 -3.8 5.1 Carcass: Carcass weight, lb. 85,452 1,869,644 6 8 -64 58 Marbling score 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 85,452 1,868,903 .005 .020 123 .178 Ultrasound ribeye area, sq. in. 1,090,266 1,095,511 1,099,091 Max. Wean Value (\$W), \$/head 22,326 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head 18,809 20.12 8.74 -21.19 48.58 Beef Value (\$B), \$/head 18,809 38.13	Scrotal circumference, cm	531,477	1,171,352	.17	.45	-3.57	3.30	
Materal milk, lb. 6,225,102 7,531,321 10 9 -38 48 Mature weight, lb. 142,731 328,693 20 30 -138 252 Mature height, in. 142,731 328,693 20 30 -138 252 Mature height, in. 142,731 328,693 .5 .3 -3.8 5.1 <i>Carcass:</i> Carcass weight, lb. 85,452 1,869,644 6 8 -64 58 Matbing score 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 1,090,266 1,090,266 1,095,511 1,099,091 .05 .020 123 .178 Current sires: No. Indexes Avg. SD Min. Max. Wean Value (\$W), \$/head 22,326 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head 18,809 20.12 8.74 -21.19 48.58 Beef Value (\$B), \$/head<	Maternal:							
Mature weight, lb. 142,731 328,693 20 30 -138 252 Mature height, in. 142,731 328,693 .5 .3 -3.8 5.1 Carcass: Carcass: Carcass: Carcass State <	Calving ease maternal, %	1,066,067	6,661,447	4	4	-32	19	
Mature height, in. 142,731 328,693 .5 .3 -3.8 5.1 Carcass: Carcass weight, lb. 85,452 1,869,644 6 8 -64 58 Marbling score 85,452 1,869,644 6 8 -64 58 Marbling score 85,452 1,869,644 .05 .18 71 1.35 Ribeye area, sq. in. 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 85,452 1,868,903 .005 .020 123 .178 Ultrasound intramuscular fat, % 1,090,266 1,095,511 .005 .020 123 .178 Ultrasound fat thickness, in. 1,099,091 .005 .020 12.91 45.17 Feedlot Value (\$W), \$/head 22,326 24.07 5.10 -12.91 45.17 Feedlot Value (\$F), \$/head 22,326 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head 18,809 38.13 12.73 -41.54 77.63 Cow Energy (\$EN), savings, .05 .02	Maternal milk, lb.	6,225,102	7,531,321	10	9	-38	48	
Carcass: Carcass weight, lb. $85,452$ $1,869,644$ 6 8 -64 58 Marbling score $85,452$ $1,869,644$ 6 8 -64 58 Ribeye area, sq. in. $85,452$ $1,869,644$ $.05$ $.18$ 88 1.20 12th-rib fat thickness, in. $85,452$ $1,869,644$ $.05$ $.18$ 88 1.20 12th-rib fat thickness, in. $1,090,266$ $11,090,266$ $11,099,091$ $11,099,091$ $11,099,091$ Current sires:No. IndexesAvg.SDMin.Max.Wean Value (\$W), \$/head $22,326$ 24.07 5.10 -12.91 45.17 Feedlot Value (\$F), \$/head $22,326$ 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head $18,809$ 20.12 8.74 -21.19 48.58 Beef Value (\$B), \$/head $18,809$ 38.13 12.73 -41.54 77.63	Mature weight, lb.	142,731	328,693	20	30	-138	252	
Carcass weight, lb. 85,452 1,869,644 6 8 -64 58 Marbling score 85,452 1,860,175 .19 .20 71 1.35 Ribeye area, sq. in. 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 85,452 1,868,903 .005 .020 123 .178 Ultrasound intramuscular fat, % 1,090,266 1005,511 1,099,091 .05 .020 123 .178 Current sires: No. Indexes Avg. SD Min. Max. Wean Value (\$W), \$/head 22,326 24.07 5.10 -12.91 45.17 Feedlot Value (\$F), \$/head 22,326 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head 18,809 38.13 12.73 -41.54 77.63 Cow Energy (\$EN), savings, 5 5 5 5 5 5	Mature height, in.	142,731	328,693	.5	.3	-3.8	5.1	
Marbling score 85,452 1,860,175 .19 .20 .71 1.35 Ribeye area, sq. in. 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 1,090,266 1,095,511 .005 .020 123 .178 Ultrasound fat thickness, in. 1,099,091 . Current sires: No. Indexes Avg. SD Min. Max. Wean Value (\$W), \$/head 22,326 24.07 5.10 -12.91 45.17 Feedlot Value (\$F), \$/head 22,326 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head 18,809 20.12 8.74 -21.19 48.58 Beef Value (\$B), \$/head 18,809 38.13 12.73 -41.54 77.63 Cow Energy (\$EN), savings, <td< td=""><td>Carcass:</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Carcass:							
Ribeye area, sq. in. 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 85,452 1,869,644 .05 .18 88 1.20 12th-rib fat thickness, in. 1,090,266 1,868,903 .005 .020 123 .178 Ultrasound ribeye area, sq. in. 1,090,266 1,095,511 .099,091 .05 .020 .123 .178 Current sires: No. Indexes Avg. SD Min. Max. Wean Value (\$W), \$/head 22,326 24.07 5.10 -12.91 45.17 Feedlot Value (\$F), \$/head 22,326 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head 18,809 20.12 8.74 -21.19 48.58 Beef Value (\$B), \$/head 18,809 38.13 12.73 -41.54 77.63 Cow Energy (\$EN), savings, .05 .05 .020 .123 .178	Carcass weight, lb.	85,452	1,869,644	6	8	-64	58	
12th-rib fat thickness, in. 85,452 1,868,903 .005 .020 .123 .178 Ultrasound intramuscular fat, % 1,090,266 1,095,511 1,095,511 .005 .020 .123 .178 Ultrasound ribeye area, sq. in. 1,095,511 1,099,091 .005 .020 .123 .178 Current sires: No. Indexes Avg. SD Min. Max. Wean Value (\$W), \$/head 22,326 24.07 5.10 -12.91 45.17 Feedlot Value (\$F), \$/head 22,326 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head 18,809 20.12 8.74 -21.19 48.58 Beef Value (\$B), \$/head 18,809 38.13 12.73 -41.54 77.63 Cow Energy (\$EN), savings,	Marbling score	85,452	1,860,175	.19	.20	71	1.35	
Ultrasound intramuscular fat, % 1,090,266 Ultrasound ribeye area, sq. in. 1,095,511 Ultrasound fat thickness, in. 1,099,091 Current sires: No. Indexes Avg. SD Min. Max. Wean Value (\$W), \$/head 22,326 24.07 5.10 -12.91 45.17 Feedlot Value (\$F), \$/head 22,326 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head 18,809 20.12 8.74 -21.19 48.58 Beef Value (\$B), \$/head 18,809 38.13 12.73 -41.54 77.63	Ribeye area, sq. in.	85,452	1,869,644	.05	.18	88	1.20	
Ultrasound ribeye area, sq. in. 1,095,511 Ultrasound fat thickness, in. 1,099,091 Current sires: No. Indexes Avg. SD Min. Max. Wean Value (\$W), \$/head 22,326 24.07 5.10 -12.91 45.17 Feedlot Value (\$F), \$/head 22,326 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head 18,809 20.12 8.74 -21.19 48.58 Beef Value (\$B), \$/head 18,809 38.13 12.73 -41.54 77.63 Cow Energy (\$EN), savings,	12th-rib fat thickness, in.	85,452	1,868,903	.005	.020	123	.178	
Ultrasound fat thickness, in. 1,099,091 Current sires: No. Indexes Avg. SD Min. Max. Wean Value (\$W), \$/head 22,326 24.07 5.10 -12.91 45.17 Feedlot Value (\$F), \$/head 22,326 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head 18,809 20.12 8.74 -21.19 48.58 Beef Value (\$B), \$/head 18,809 38.13 12.73 -41.54 77.63 Cow Energy (\$EN), savings,	Ultrasound intramuscular fat, %	1,090,266						
Current sires:No. IndexesAvg.SDMin.Max.Wean Value (\$W), \$/head22,32624.075.10-12.9145.17Feedlot Value (\$F), \$/head22,32621.7512.92-44.7183.19Grid Value (\$G), \$/head18,80920.128.74-21.1948.58Beef Value (\$B), \$/head18,80938.1312.73-41.5477.63Cow Energy (\$EN), savings,	Ultrasound ribeye area, sq. in.	1,095,511						
Wean Value (\$W), \$/head 22,326 24.07 5.10 -12.91 45.17 Feedlot Value (\$F), \$/head 22,326 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head 18,809 20.12 8.74 -21.19 48.58 Beef Value (\$B), \$/head 18,809 38.13 12.73 -41.54 77.63 Cow Energy (\$EN), savings, 600 600 600 600 600 600	Ultrasound fat thickness, in.	1,099,091						
Feedlot Value (\$F), \$/head 22,326 21.75 12.92 -44.71 83.19 Grid Value (\$G), \$/head 18,809 20.12 8.74 -21.19 48.58 Beef Value (\$B), \$/head 18,809 38.13 12.73 -41.54 77.63 Cow Energy (\$EN), savings, 6 18 10 10 10 10	Current sires ¹	No. Indexes	Avg.	SD	1	<u>Min.</u>	Max.	
Grid Value (\$G), \$/head 18,809 20.12 8.74 -21.19 48.58 Beef Value (\$B), \$/head 18,809 38.13 12.73 -41.54 77.63 Cow Energy (\$EN), savings,	Wean Value (\$W), \$/head	22,326	24.07	5.10	-12.91		45.17	
Beef Value (\$B), \$/head 18,809 38.13 12.73 -41.54 77.63 Cow Energy (\$EN), savings, 10,000 10	Feedlot Value (\$F), \$/head	22,326	21.75	12.92	-44.71		83.19	
Cow Energy (\$EN), savings,	Grid Value (\$G), \$/head	18,809	20.12	8.74	-21.19		48.58	
	Beef Value (\$B), \$/head	18,809	38.13	12.73	-41.54		77.63	
\$/cow/year 22.326 3.75 8.73 -28.60 56.05	Cow Energy (\$EN), savings,							
φιτοννηγται 22,520 5.75 0.75 20.09 50.05	\$/cow/year	22,326	3.75	8.73	-2	8.69	56.05	

¹Current sires have at least one calf recorded in the American Angus Association Herd Book within the past two years.

The printed version of the *Spring 2010 Sire Evaluation Report* was made available to breeders in January.

From a total of **202,048** sires with progeny records in the American Angus Association database, the *Spring 2010 Sire Evaluation Report* lists **2,190** sires with the following qualifications:

- 1. The sire must have at least 35 yearling progeny weights in proper contemporary groups on Angus Herd Improvement Records (AHIR®).
- 2. The sire must have a yearling accuracy value of at least 0.40.
- 3. The sire must have had at least five calves recorded in the American Angus Association Herd Book since **Jan. 1, 2008.**

The Young Sire Supplement lists **2,417** bulls born after **Jan. 1, 2006**, which have at least 10 progeny weaning weights on AHIR and have a weaning accuracy of at least 0.30.

Expected progeny differences (EPDs) and associated accuracies (ACC) are listed for calving ease direct (CED) and maternal (CEM), birth weight (BW), weaning weight (WW), yearling weight (YW) and height (YH), scrotal circumference (SC), milk (MILK), mature weight (MW) and height (MH), carcass weight (CW), marbling (Marb), ribeye area (REA) and fat (Fat).

Dollar values (\$values) are listed for weaned calf value (\$W), cow energy value (\$EN), feedlot value (\$F), grid value (\$G), quality grade value (\$QG), yield grade value (\$YG) and beef value (\$B).

Fig. 1: Spring 2010 breed average EPD and \$Values

	Production					Maternal				Carcass				\$Values					
	CED	BW	WW	YW	YH	SC	CEM	Milk	MW	MH	\$EN	CW	Marb	RE	Fat	\$W	\$F	\$G	\$B
Current Sires ¹	+5	+2.1	+43	+79	+.4	+.38	+6	+21	+31	+.4	+3.75	+11	+.28	+.13	+.010	+24.07	+21.75	+20.12	+38.13
Main Sires	+6	+2.0	+46	+84	+.3	+.39	+7	+21	+31	+.4	+2.76	+11	+.28	+.14	+.011	+25.35	+25.55	+19.77	+38.40
Supplemental Sires	+6	+1.7	+48	+88	+.4	+.55	+7	+22			47	+14	+.32	+.17	+.017	+25.83	+27.99	+20.46	+42.15
Current Dams ¹	+4	+2.4	+39	+71	+.4	+.26	+6	+19	+31	+.5	+7.49	+8	+.23	+.07	+.007	+22.65	+15.31	+18.48	+32.92
Non-Parent Bulls	+5	+2.1	+45	+82	+.4	+.40	+6	+21			+2.01	+12	+.33	+.17	+.013	+24.87	+23.88	+21.98	+41.10
Non-Parent Cows	+5	+2.1	+44	+81	+.4		+6	+21			+2.30	+12	+.36	+.19	+.013	+24.79	+23.44	+22.30	+41.48

¹At least one calf recorded in herd book within the past two years.

Descriptions of each of these values are provided in the printed summary and online at *www.angussiresearch.com*. Table 1 shows the number of records used to calculate each EPD, the number of EPDs generated, along with the average, minimum and maximum values among current sires. Fig. 1 shows the breed average EPDs and \$values for current sires, main sires, supplemental sires, current dams, and non-parent bulls and cows. Figs. 2-5 show the genetic trends for various traits.

Carcass

Weekly genomic-enhanced carcass EPDs are calculated from an integrated analysis of the Beef Improvement Records (BIR) carcass, ultrasound, and genomic profile databases. The weekly genetic evaluations result in a single genomic-enhanced EPD for carcass weight, marbling score, ribeye area, and fat thickness. Every Friday morning, the updated genomic-enhanced NCE EPDs are available at *www.angus.org*. The Spring 2010 report reflects data available Dec. 11, 2009. It is the first printed report to incorporate DNA information via the Igenity® Profile for Angus.

Research reports

The Spring 2010 Sire Evaluation Report contains research reports for docility (DOC) and heifer pregnancy (HP) EPDs.

The docility report includes sires with a minimum of 0.35 accuracy and at least 15 progeny and two progeny groups. The report contains DOC EPDs for 720 sires. Temperament scores of 77,693 animals within 7,209 contemporary groups provided EPDs for 235,359 animals. The average EPD was 8, with a minimum of -31 and a maximum of +42.

The heifer pregnancy report includes sires with a minimum of 0.30 accuracy. The report contains HP EPDs for 677 sires. Heifer breeding records on 25,528 heifers within 705 contemporary groups provided EPDs for 63,456 animals. The average EPD was 8, with a minimum of -4 and a maximum of +18.

Full report, summaries

Active members who returned their blue request cards to receive a printed copy of the *Spring 2010 Sire Evaluation Report* will receive it automatically. Other members and commercial producers who want a printed report should request it via e-mail or by calling the Association. All requests should be submitted to Brenda Gabriel at bgabriel@ angus.org or 816-383-5144.









