MEAN EPDs REPORTED BY DIFFERENT BREEDS

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Expected progeny differences (EPDs) have been the primary tool for genetic improvement of beef cattle for over 40 years beginning with evaluations of growth traits. Since that time, EPDs have been added for several other production traits such as calving ease, stayability, carcass merit and conformation. Most recently, several breed associations have derived economic indices from their EPDs to increase profit under different management and breeding systems.

It is useful for producers to compare the EPDs of potential breeding animals with their breed average. The current EPDs from the most recent genetic evaluations of 24 breeds are presented in this report. Mean EPDs for growth traits are shown in Table 1 (24 breeds), for other production traits in Table 2 (19 breeds), and for carcass and composition traits in Table 3 (20 breeds). Several breeds also have EPDs and indices that are unique to their breed; these EPDs are presented in Table 4.

Average EPDs should only be used to determine the genetic merit of an animal relative to its breed average. To compare animals of different breeds, across breed adjustment factors should be added to animals' EPDs for their respective breeds (see Across-breed EPD Tables reported by Kuehn and Thallman in these proceedings).

This list is likely incomplete; evaluations for some breeds are not widely reported. We are aware of recent EPD evaluations for the American Akaushi, Blonde d'Aquitaine, North American Piedmontese, American Pinzgauer, and American Waygu breeds but have not found summaries containing current breed averages. If you see a breed missing and would like to report the average EPDs for that breed, please contact Larry (Larry.Kuehn@ars.usda.gov) or Mark (Mark.Thallman@ars.usda.gov).

Table 1. Birth year 2013 average EPDs from 2015 evaluations for growth traits

Breed	Birth Weight (lb)	Weaning Weight (lb)	Yearling Weight (lb)	Maternal Milk (lb)	Total Maternal (lb)
Angus	1.7	50	88	23	
Hereford	3.3	47	77	19	43
Murray Grey	3.7	23	35	4	15
Red Angus	-1.2	56	87	20	
Red Poll	1.6	15	24	6	
Shorthorn	2.2	48	52.7	19.7	41.6
South Devon	2.5	43.2	80.8	24.5	46.2
Beefmaster	0.3	10	14	2	
Braford	1.0	11	17	3	9
Brahman	1.8	16	25.5	5.6	
Brangus	1.1	24.7	46.2	9.5	21.8
Red Brangus	1.5	12.6	19.8	5.0	11.3
Santa Gertrudis	0.2	3.6	5.2	0.3	
Senepol	1.2	12.1	16.5	4.5	9.6
Simbrah	3.9	62.9	85.2	20.7	52.1
Braunvieh	2.9	44.5	69.2	34.3	56.6
Charolais	0.5	26.1	47.5	8.5	21.6
Chianina	2.4	43.3	62.2	16.8	38.3
Gelbvieh	1.0	67.5	97.5	28.3	61.9
Limousin	1.9	64.3	90.6	25.4	
Maine-Anjou	1.2	45.3	59.8	17.1	39.6
Salers	1.5	42	80	19	40
Simmental	2	62.9	91	21.9	53.4
Tarentaise	1.3	17.5	30.8	.7	9.4

Table 2. Birth year 2013 average EPDs from 2015 evaluations for other production traits

Breed	Calving Ease Direct (%)	Calving Ease Maternal (%)	Scrotal Circ (cm)	Docility Score	Mature Weight (lb)	Heifer Pregnancy (%)	Stayability (%)
Angus	4	8	0.82	13	30	10.1	
Hereford	0.9	1.2	0.8		87		
Murray Grey	-0.6	-0.1	0.2		53		
Red Angus	4	5				10	11
Shorthorn	4.0	1.4					
South Devon			0.1				
Beefmaster			0.2				
Brahman				0.0			
Brangus	4.6	3.7	0.48				
Simbrah	2.5	6.4		6.8			
Braunvieh	5.4	0.7	-0.12				
Charolais	3.1	3.5	0.72				
Chianina	5.5	-2.5					
Gelbvieh	10.2	7.2					6.6
Limousin	6.9	5.5	0.14	21.6			19.4
Maine Anjou	7.8	2.4					
Salers	0.4	0.4	0.3	9			23
Simmental	8.6	9.4		9.6			20.6
Tarentaise	-0.1	0.7					

Table 3. Birth year 2013 average EPDs from 2015 evaluations for carcass and composition traits

Breed	Carcass Wt (lb)	Retail Product (%)	Yield Grade	Carcass			Rump fat (in)	WBSF (lb)
				Marbling Score	Ribeye Area (in^2)	Fat Thickness (in)		
Angus	32			0.54	0.51	0.012		
Hereford				0.07	0.30	0.003		
Murray Grey	31	0.4		0.0[a]	0.10[a]	0.00[a]	0.00[a]	
Red Angus	20		0.01	0.44	0.10	-0.001		
Shorthorn	0.2			0.05	-0.06	-0.030		
South Devon	27.4	0.8		0.4	0.22	0.01		
Beefmaster				0.00[a]	0.03[a]	0.01[a]	0.01[a]	
Braford	6			0.01	0.06	0.012		
Brahman	1.2	0.00		0.01	0.01	-0.001		0.02
Brangus	23.5			0.00[a]	0.31[a]	-0.043[a]	-0.008[a]	
Santa Gertrudis	3.3			-0.01	0.03	0.002		
Simbrah	25.6		-0.23	-0.08	0.46	-0.060		-0.03
Braunvieh	20.3			0.57[a]	0.33[a]	-0.43[a]	-0.057[a]	
Charolais	15.9			0.03	0.28	0.003		
Chianina	10.5	0.33		0.15	0.19	-0.04		
Gelbvieh	28.8		-0.19	0.06	0.45	-0.05		
Limousin	25.9		-0.18	-0.07	0.50			
Maine-Anjou	7.0	0.43		0.04	0.19	-0.051		
Salers	22	0.1		0	0.04	0.00		
Simmental	26.8		-0.32	0.12	0.77	-0.05		-0.32

[a]Derived using ultrasound measures and reported on an ultrasound scale (IMF% instead of marbling score)

Table 4. Birth year 2013 average EPDs from 2015 evaluations for other traits unique to individual breeds

Angus	Residual Average Daily Gain (lb)	Mature Height (in)	Yearling Height (in)	Cow Energy Value ($)	Weaned Calf Value ($)	Feedlot Value ($)	Grid Value ($)	Beef Value ($)
	0.18	0.3	0.5	-6.98	35.94	34.67	30.24	84.8

Hereford	Baldy Maternal Index ($)	Brahman Influence Index ($)	Certified Hereford Beef Index ($)	Calving Ease Index ($)	Udder Score	Teat Score
	17	15	22	15	1.13	1.13

Red Angus	Mature Cow Maintenance (Mcal/mo)
	0

Gelbvieh	30-Month Pregnancy	DMI (lb/d)	ADG (lb/d)	RFI (lb/d)	$ Cow ($)	Efficiency Profit Index ($)	Feeder Profit Index ($)
	0.8	0.008	-0.002	-0.007	69.59	100.82	69.40

Limousin	Mainstream Terminal Index ($)
	47.7

Simmental	All Purpose Index ($)	Terminal Index ($)	Simbrah	All Purpose Index ($)	Terminal Index ($)
	119.4	66.7		69.8	52.4

Shorthorn	$ Calving Ease	$ Feedlot	$ British Maternal Index
	21.72	47.81	108.67

Murray Grey	600-d wt (lb)	Gestational length (d)	Days to calving (d)
	51	-0.2	-0.8