

**REPRODUCTION, GROWTH, AND CARCASS TRAITS IN THE ANGUS-BRAHMAN MULTIBREED HERD OF THE
UNIVERSITY OF FLORIDA**

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ANGUS-BRAHMAN MULTIBREED HERD

Six Mating Groups

Sires mated with dams of all breed groups

Sire Mating Groups

- | | |
|---|-----------------------|
| 1 | Angus |
| 2 | 3/4 Angus 1/4 Brahman |
| 3 | 1/2 Angus 1/2 Brahman |
| 4 | 1/4 Angus 3/4 Brahman |
| 5 | Brahman |
| 6 | Brangus |

Dam Mating Groups

- | | |
|---|---------------------------------------|
| 1 | (100% - 80%) Angus (0% - 20%) Brahman |
| 2 | (79% - 60%) Angus (21% - 40%) Brahman |
| 3 | (59% - 40%) Angus (41% - 60%) Brahman |
| 4 | (39% - 20%) Angus (61% - 80%) Brahman |
| 5 | (19% - 0%) Angus (81% - 100%) Brahman |
| 6 | Brangus (5/8 Angus - 3/8 Brahman) |

Genetic evaluation of animals and groups of animals for additive genetic effects (additive EPD)

Genetic evaluation of sires and groups of sires for their combining ability when mated to dams of various breed compositions (nonadditive EPD).

Table 1. Mating Plan of the Angus-Brahman Multibreed Herd of the University of Florida						
	Breed group of sire					
Breed group of dam	Angus	3/4 A 1/4 B	1/2 A 1/2 B	1/4 A 3/4 B	Brahman	Brangus
	1	2	3	4	5	6
Angus						
1	1	1	2	6	3	1
3/4 A 1/4 B						
2	1	2	6	3	4	2
1/2 A 1/2 B						
3	2	6	3	4	4	3
3/4 A 1/4 B						
4	6	3	4	4	5	3
Brahman						
5	3	4	4	5	5	4
Brangus						
6	1	2	3	3	4	6

Traits

Reproduction-Management-Survival

Gestation length^a

Calves born per cow present at mating time^b

Calf survival from birth to 1 week of age

Calf survival from 1 week of age to weaning

Pounds of calf weaned per cow present at mating time^b

Pounds of calf weaned per calf born

Growth

Birth weight

Weaning weight

Slaughter weight

Slaughter age

Carcass

Hot carcass weight

Dressing percentage

Fat thickness

Rib eye area

Marbling

Tenderness

Warner-Bratzler shear force (kg) at day 5

^a Only for calves conceived by artificial insemination.

^b This indicator considers that: 1) all usable heifers were saved every year, and 2) a high percentage (between 10% and 30%) of cows per breed group were culled for reasons other than being open, e.g., cows culled due to poor performance, poor conformation, and temperament.

Table r1. Gestation length of calves in the Angus-Brahman Multi-breed Herd of the University of Florida by breed-group-of-sire \times breed-group-of-dam combination^a

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	280	291	291	284	288	286	284
2	281	285	287	294	292	284	287
3	282	288	289	290	291	290	289
4	281	287	289	293	294	286	288
5	285	295	294	297	295	288	293
6	285	289	290	294	292	287	289
Mean	281	290	290	292	293	287	289

^a Calves conceived by artificial insemination from 1989 to 1996.

Table r2. Percentage of calves born per cow present at mating time^a in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire × breed-group-of-dam combination^b

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	72	73	79	80	84	80	77
2	79	73	88	88	71	82	80
3	87	89	87	85	87	84	86
4	79	76	85	81	89	87	83
5	75	81	74	82	77	66	76
6	80	73	64	78	80	74	75
Mean	77	79	80	82	80	77	79

^a This indicator considers that: 1) all usable heifers were saved every year, and 2) a high percentage (between 10% and 30%) of cows per breed group were culled for reasons other than being open, e.g., cows culled due to poor performance, poor conformation, and temperament.

^b Calves born from 1989 to 1996.

Table r3. Percentage of calves that survived at 1 week of age per cow present at mating time^a in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire × breed-group-of-dam combination^b

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	67	64	74	75	70	77	70
2	77	63	78	85	66	77	74
3	83	79	85	76	81	78	80
4	71	72	82	77	82	77	77
5	72	67	63	75	66	63	67
6	63	68	55	78	66	71	68
Mean	73	73	70	70	71	73	72

^a This indicator considers that: 1) all usable heifers were saved every year, and 2) a high percentage (between 10% and 30%) of cows per breed group were culled for reasons other than being open, e.g., cows culled due to poor performance, poor conformation, and temperament.

^b Calves born from 1989 to 1996.

Table r4. Percentage of calves present at weaning per cow present at mating time^a in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire × breed-group-of-dam combination^b

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	56	58	68	70	63	67	61
2	59	53	59	69	51	64	59
3	66	60	70	66	66	73	67
4	56	40	48	42	63	65	53
5	64	61	59	45	58	55	59
6	57	64	55	69	66	62	62
Mean	60	57	61	65	60	64	61

^a This indicator considers that: 1) all usable heifers were saved every year, and 2) a high percentage (between 10% and 30%) of cows per breed group were culled for reasons other than being open, e.g., cows culled due to poor performance, poor conformation, and temperament.

^b Calves born from 1989 to 1996.

Table r5. Calf survival from birth to 1 week of age in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire \times breed-group-of-dam combination^a

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	92	88	92	94	83	96	91
2	97	91	89	96	89	94	93
3	94	89	98	90	94	93	93
4	89	95	96	95	91	89	92
5	98	86	90	92	96	96	90
6	80	94	84	100	83	95	92
Mean	93	89	92	93	87	94	91

^a Calves born from 1989 to 1996.

Table r6. Calf survival from birth to weaning in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire × breed-group-of-dam combination ^a							
	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	77	80	83	90	77	85	80
2	78	73	65	78	71	78	74
3	77	73	80	75	74	87	78
4	73	50	62	52	69	71	64
5	85	80	80	80	75	83	79
6	72	88	84	89	83	83	83
Mean	78	74	76	78	75	83	78

^a Calves born from 1989 to 1995.

Table r7. Calf survival from 1 week of age to weaning in the Angus-Brahman Multibreed Herd of the University of Florida
by breed-group-of-sire \times breed-group-of-dam combination^a

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	83	91	91	97	92	88	88
2	79	80	74	82	80	83	80
3	83	82	82	83	79	94	84
4	78	53	64	55	75	80	69
5	89	92	91	87	86	88	88
6	90	93	94	89	100	87	90
Mean	84	83	82	84	86	88	85

^a Calves born from 1989 to 1995.

Table r8. Mean lb of calf weaned per cow present at mating time ^a in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire × breed-group-of-dam combination ^b							
	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	265	284	327	356	321	328	299
2	325	271	324	399	286	332	321
3	365	349	385	353	367	408	373
4	309	215	263	240	367	348	297
5	332	297	269	287	256	263	275
6	296	332	293	366	368	314	324
Mean	307	298	314	333	299	329	312

^a This indicator considers that: 1) all usable heifers were saved every year, and 2) a high percentage (between 10% and 30%) of cows per breed group were culled for reasons other than being open, e.g., cows culled due to poor performance, poor conformation, and temperament.

^b Calves born from 1989 to 1995.

Table r9. Mean lb of calf weaned per calf born in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire \times breed-group-of-dam combination^a

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	429	423	434	474	422	466	439
2	526	480	441	568	487	471	495
3	482	500	544	480	519	538	511
4	524	490	502	505	516	469	501
5	510	420	415	412	371	460	411
6	393	553	468	539	472	504	493
Mean	469	459	467	482	421	489	461

^a Calves born from 1989 to 1995.

Table g1. Birth weight (lb) of calves in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire × breed-group-of-dam combination ^a							
	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	67	78	72	82	86	74	75
2	68	73	70	79	76	71	73
3	67	76	74	81	80	76	76
4	65	67	68	74	74	76	71
5	73	72	70	74	74	76	74
6	73	77	79	80	83	75	77
Mean	69	74	72	79	78	75	75

^a Calves born from 1989 to 1996.

Table g2. Weaning weight (lb, adjusted to 205 days of age) of calves in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire \times breed-group-of-dam combination^a

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	407	452	417	458	482	443	436
2	455	446	468	504	489	453	469
3	476	502	477	476	504	498	490
4	470	450	487	479	495	496	481
5	485	454	422	435	442	471	450
6	473	474	461	469	503	464	471
Mean	449	467	453	465	469	470	466

^a Calves born from 1989 to 1995.

Table g3. Shrunk slaughter weight of calves (fed to .55 in fat over the rib eye endpoint) in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire × breed-group-of-dam combination^a

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	1143	1164	1123	1190	1206	1163	1164
2	1098	1112	1123	1128	950	1236	1106
3	1231	1153	1164	1136	1194	1199	1179
4	1169	1032	1147		1136	1267	1165
5	1193	1025	965	1042	1100	1071	1086
6	1085	1046	1036	1173	1079	1165	1143
Mean	1161	1079	1127	1137	1132	1166	1141

^a Calves born from 1990 to 1994.

Table g4. Slaughter age of calves (fed to .55 in fat over the rib eye endpoint) in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire × breed-group-of-dam combination ^a							
	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	452	433	441	457	432	449	446
2	465	455	394	417	457	478	446
3	461	461	438	430	440	450	444
4	443	452	434		444	421	437
5	388	390	388	408	401	375	392
6	438	445		442	449	424	433
Mean	439	424	424	433	426	426	433

^a Calves born from 1990 to 1994.

Table c1. Dressing percentage of calves (fed to .55 in fat over the rib eye endpoint) in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire × breed-group-of-dam combination ^a							
	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	64	65	65	64	65	62	64
2	63	65	64	67	64	62	64
3	63	65	62	64	65	63	64
4	64	65	63		66	65	64
5	63	63	63	65	64	64	64
6	64	66		65	64	63	63
Mean	63	64	63	64	65	63	64

^a Calves born from 1990 to 1994.

Table c2. Hot carcass weight of calves (fed to .55 in fat over the rib eye endpoint) in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire \times breed-group-of-dam combination^a

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	727	760	733	758	785	725	745
2	692	725	716	751	606	779	707
3	775	744	718	724	778	761	749
4	747	666	722		747	818	749
5	751	644	607	681	708	682	692
6	697	694		758	689	728	724
Mean	736	692	708	730	733	735	728

^a Calves born from 1990 to 1994.

Table c3. Fat thickness over the rib eye of calves (fed to .55 in fat over the rib eye endpoint) in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire \times breed-group-of-dam combination^a

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	.50	.40	.38	.56	.49	.41	.48
2	.58	.60	.53	.50	.25	.53	.52
3	.61	.44	.41	.61	.50	.55	.53
4	.45	.50	.55		.41	.75	.52
5	.48	.44	.47	.44	.38	.39	.42
6	.47	.45		.47	.57	.38	.43
Mean	.51	.46	.46	.54	.44	.46	.48

^a Calves born from 1990 to 1994.

Table c4. Rib eye area of calves (fed to .55 in fat over the rib eye endpoint) in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire \times breed-group-of-dam combination^a

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	13	15	13	12	12	12	13
2	13	12	11	12	11	12	12
3	13	12	12	12	12	12	12
4	12	12	11		11	11	11
5	13	11	10	11	12	12	12
6	11	12		13	11	12	12
Mean	12	12	12	12	12	12	12

^a Calves born from 1990 to 1994.

Table c5. Marbling score of calves (fed to .55 in fat over the rib eye endpoint) in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire \times breed-group-of-dam combination^a

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	477	330	340	347	398	372	413
2	432	447	357	530	235	350	389
3	397	383	337	366	348	359	362
4	418	340	383		305	403	373
5	398	303	385	320	333	339	341
6	417	400		268	313	383	359
Mean	432	350	356	340	337	369	373

^a Calves born from 1990 to 1994. Marbling scores: 100 to 999, 100 to 199 = devoid, and 900 to 999 = abundant.

Table c6. Tenderness score of calves (fed to .55 in fat over the rib eye endpoint) in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire × breed-group-of-dam combination ^a							
	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	5.7	3.6	4.8	5.2	5.1	5.9	5.3
2	5.5	5.7	6.1			5.6	5.7
3	5.8	4.5	4.7	4.8	4.2	5.2	4.9
4	5.4		5.4		5.2	5.3	5.4
5	5.6	4.3	5.5	5.0	3.9	5.5	4.8
6	5.3	5.2		4.5	5.4	5.5	5.3
Mean	5.6	4.5	5.1	4.8	4.6	5.5	5.2

^a Calves born from 1990 to 1994. Tenderness scores: 1 to 8, 1 = extremely tough, and 8 = extremely tender.

Table c7. Warner-Bratzler shear force (kg) of cooked samples from carcasses 5 days after slaughter of calves (fed to .55 in fat over the rib eye endpoint) in the Angus-Brahman Multibreed Herd of the University of Florida by breed-group-of-sire × breed-group-of-dam combination^a

	Breed group of sire						
Breed group of dam	1	2	3	4	5	6	Mean
1	4.9	10.5	7.5	5.0	6.1	5.0	5.7
2	4.9	5.1	4.3	3.6	13.6	6.7	6.1
3	5.8	5.5	6.2	6.9	6.6	6.0	6.3
4	4.5	6.4	5.0		6.1	6.0	5.4
5	5.3	8.0	4.4	7.3	7.1	5.0	6.5
6	5.1	7.6		5.7	5.8	5.9	5.8
Mean	5.1	7.2	5.6	6.2	7.0	5.7	6.0

^a Calves born from 1990 to 1994.