

The Florida Bull Test 2010-2011¹

G. Cliff Lamb and Nicolas DiLorenzo²

Test Procedures

The 2010-2011 Florida Bull Test consisted of a 112-day performance test and a breeding soundness evaluation of each bull that qualified for the auction. Upon arrival, bulls were sorted into contemporary groups and housed in the University of Florida North Florida Research and Education Center (NFREC) Feed Efficiency Facility where they received free choice access to feed and water with a target to gain 3.5 lb/day. The diet consisted of 40% corn gluten, 40% soy hulls, 10% bermudagrass hay, 6% molasses, and 4% of a mineral and ionophore (lasalocid) supplement on a dry matter (DM) basis; the diet is formulated to contain 17% crude protein (CP) and 0.52 Mcal net energy (NE) g/lb of diet DM.

After a three-week adaptation period, bulls were weighed on two consecutive days to obtain an objective average unshrunk starting weight, which became the on-test starting weight. Bulls were inspected daily for any arising health problems. An intermediate unshrunk weight was obtained 28 days after starting the test, followed by unshrunk weights on two consecutive days to obtain an accurate 56-day weight and complete the feed efficiency portion of the test. On day 56 of the test, bulls were moved from the Feed Efficiency Facility onto 3.25 acre pastures where they stayed for the remainder of the test. An additional intermediate weight was assessed on day 84 of the test, followed by the conclusion of the 112-day feeding period, when bulls were weighed again on two consecutive days to determine final test weight. Animal performance, specifically average daily

gain (ADG), was calculated using only the official starting and finishing test weights. Throughout the test, bulls were observed and screened for structural soundness and disposition. Bulls deemed structurally unsound or those having poor disposition did not qualify for the sale.

Assessment of Feed Efficiency

Residual feed intake (RFI) was the measure of feed efficiency used to rank the bulls in the bull test, and it was calculated as the difference between actual feed intake and expected feed intake. Daily feed intake was measured on each individual bull, and RFI was calculated (described previously by Maddock and Lamb 2009, available at <http://edis.ifas.ufl.edu/an217>). After bulls arrived at the feed efficiency facility, they were fitted with electronic identification (EID) tags to monitor daily feed intake using the GrowSafe system, and ADG was calculated for the 56-day feed efficiency portion of the test.

Test Rules and Regulations

General Policies and Procedures

1. Bulls must be born between September 1 and December 31, 2009.
2. All consignors' herds must be enrolled in their respective breed association performance records program. State beef cattle improvement association programs are acceptable for herds whose breed association does not have a performance records program.

1. This document is AN273, one of a series of the Animal Sciences Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Original publication date November 2011. Visit the EDIS website at <http://edis.ifas.ufl.edu>.
2. G. Cliff Lamb, professor, Department of Animal Sciences, North Florida Research and Education Center, Marianna, FL; and Nicolas DiLorenzo, assistant professor, Department of Animal Sciences, North Florida Research and Education Center, Marianna, FL; Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL 32611.

3. Calves must have completed the weaning phase of the performance records program with their contemporary group, and this information must be presented at delivery. If data was not returned from the association, a copy of the weight data with the number of contemporaries must be provided.
4. All calves must be purebred or full blood and registered with their breed association. Composite bulls must have both sire and dam registered in an acknowledged beef breed association. A registration certificate and pedigree must accompany each bull at delivery to the test station to participate.
5. A bull should weigh 2.5 lbs/day of age when delivered to the test station. A transit shrink of 1% per hour of transit time is allowed.
6. Bulls must be weaned a minimum of 3 weeks prior to delivery.
7. Bulls must be structurally sound and show evidence of good growth potential.
8. Bulls below frame score 4 will not be accepted (according to the Beef Improvement Federation frame score chart).
9. Bulls' actual birth weight is required.
10. Consignments over 10 head will be accepted on a space-available basis.
11. Priority for space will be given to Florida residents. Bulls from other states will be accepted on a space-available basis.
12. Sire-group testing of bulls is more desirable than individual testing because it provides more information to both breeders and prospective buyers. Therefore, they will receive preference if space becomes limited.
13. Breeders/consignors must be members of the Florida Cattlemen's Association.
14. Embryo transfer bulls must be designated as such, and the breed of the recipient cow designated.
15. Bulls must have legible permanent identification (tattoo or brand) corresponding to the registration paper at delivery.
16. Horned bulls will be grouped separately. It is recommended that they be dehorned and healed at delivery.

Health Requirements

1. All bulls must be in good health and accompanied by a health certificate showing they are from a Brucellosis-free accredited or certified free herd with the herd number on the health certificate, or they must have a negative test for Brucellosis not more than 30 days before delivery. Bulls originating from a state that is not T.B. free must also be accompanied by a health certificate showing they are a certified T.B.-free herd or have a negative test for T.B. not more than 30 days before delivery. All bulls will be tested for T.B. upon arrival.
2. Bulls must have been vaccinated twice (minimum 21 days between vaccinations) for 5-way leptospirosis, 7- or 8-way clostridium with *Haemophilus somnus*, IBR/PI3/BVD/BRSV and with the last vaccination at least three weeks or more prior to delivery. Vaccination for *Pasteurella* is optional. Intranasal IBR/PI3 is recommended.
3. Consignors are responsible for the cost of treatment if their bull requires examination by a veterinarian.
4. Consignors should contact their local or state veterinarian for interstate permit and health requirements. An official certificate of veterinary inspection (health paper) is required for each bull.

Test Results

The Florida Bull Test focuses on testing bulls on a diet that includes a grain-based supplement and ad libitum access to forage. Overall ranking for the test is based on ADG and the weight per day of age (WDA) generating an index ratio. The top performing bull and top performing SimAngus/Simmental bull in the test was Cast Iron W200, owned by John Hill of Altha, FL, who indexed 120 with an ADG of 4.13 and WDA of 3.54 lbs/day. The top Angus bull, Dove Creek Rednock HV562-D002, owned by Dove Creek Angus from Winder, GA, was ranked second overall and indexed 118 with an ADG of 4.11 lbs/day and WDA of 3.44 lbs/day. The top Brangus bull, Southern Bear Bryant, owned by Southern Cattle Company, Marianna, FL, was ranked 4th overall and indexed 117 with an ADG of 3.86 lbs/day and WDA of 3.66 lbs/day. The top Charolais bull, HBR Profit 763 P, owned by Rogers Bar HR from Collins, MS, was ranked 3rd overall and indexed 117 with an ADG of 4.41 lbs/day and WDA of 3.12 lbs/day. The top Hereford bull, SRH Image Maker R125 9056, owned by Sunset Ridge Herefords

from Cumming, GA, was ranked 29th overall and indexed 97 with an ADG of 3.36 lbs/day and WDA of 2.88 lbs/day. The top Limousin bull, FNGC Platinums Pride 184 owned by G & S Farm from Chipley, FL, was ranked 9th overall and indexed 115 with an ADG of 3.61 lbs/day and WDA of 3.77 lbs/day. The top Parthenais bull, Uranium's Protege owned by G & S Farm from Chipley, FL, was ranked 12th overall and indexed 109 with an ADG of 3.73 lbs/day and WDA of 3.25 lbs/day. Feed efficiency data is summarized in Table 1.

Gainesville: University of Florida Institute of Food and Agricultural Sciences. <http://edis.ifas.ufl.edu/an217>.

Table 1. Summary of feed efficiency data for bulls in the 2010/11 FL Bull Test.

Item	Daily Intake, lbs/day	RFI, kg/day	Feed:Gain
Average	24.10	0.00	7.69
Range	14.46 – 34.48	-3.67 – 4.835	.13 – 11.25

Sale Summary

The Florida Bull Test Sale was held on January 15, 2011. Of the 49 bulls tested, 42 qualified for the sale, but only 30 were on offer at the North Florida Research and Education Center in Marianna, FL. The sale grossed \$67,550 with an average of \$2,252 per lot. Angus bulls averaged \$2,342 on 18 lots; Brangus averaged \$1,963 on 4 lots; Hereford averaged \$1,825 on 2 lots; Limousin averaged \$1,933 on 3 lots; Parthenais averaged \$1,450 on 2 lots; and one Simmental sold for \$3,200. The high selling bull was lot 5, R & A Hi Volume 111, selling for \$3,500. He was purchased by Larry Ford of Greenwood, FL. The consignor was R & A Angus of Mebane, NC.

2011-2012 Florida Bull Test Dates

Nomination deadline – June 15, 2011

Delivery date – July 26, 2011

Test begins (initial weights) – August 16 and 17, 2011

28-day weight – September 14, 2011

56-day weight – October 11 and 12, 2011

84-day weight – November 9, 2011

Test ends (final weights) – December 6 and 7, 2011

Bull Test Sale – January 14, 2012

References

Maddock, T.D., and G. C. Lamb. 2009. *The Economic Impact of Feed Efficiency in Beef Cattle*. AN217.

Table 2. 2010-2011 Florida Bull Test individual bull performance in order of final test index.

Test ID	Breed	Start Weight, lbs	28-day Weight, lbs	56-day Weight, lbs	84-day Weight, lbs	Final Weight, lbs	Final Test ADG ^a , lbs/d	Final Test WDA ^b , lbs/d	Final Test Index ^c , lbs/d	Final Index Ratio	Frame Score	Scrotal Circ.
879	SimAngus	873	980	1127.5	1260	1335	4.13	3.54	7.67	120	6.6	38
902	Angus	985	1065	1205	1300	1445	4.11	3.44	7.55	118	5.6	38
874	Charolais	856	964	1122.5	1275	1350	4.41	3.12	7.53	117	6.8	42
916	Angus	873	992	1132.5	1200	1305	3.86	3.66	7.51	117	5.7	40
880	Angus	1040	1155	1265	1385	1497.5	4.08	3.37	7.46	116	5.1	35
903	Angus	899	1010	1115	1260	1357.5	4.09	3.36	7.45	116	6.1	38
876	Charolais	940	1080	1202.5	1360	1420	4.29	3.15	7.43	116	8.3	40
892	Angus	867	976	1130	1225	1345	4.27	3.15	7.42	116	6.4	34
910	Limousin	886	992	1075	1200	1290	3.61	3.77	7.38	115	7.6	26
886	Angus	734	830	975	1100	1195	4.12	3.11	7.23	113	5.5	35.5
885	Angus	874	952	1042.5	1170	1305	3.85	3.18	7.03	110	6.2	37
911	Parthenais	1050	1120	1242.5	1375	1467.5	3.73	3.25	6.98	109	6.7	31.5
914	Angus	663	766	871	996	1095	3.86	3.08	6.93	108	4.6	37
915	Angus	629	712	819	910	1035	3.63	3.20	6.83	107	5.0	35
908	Parthenais	1055	1145	1242.5	1390	1457.5	3.59	3.20	6.80	106	5.6	31.5
875	Charolais	729	828	961	1080	1175	3.98	2.80	6.79	106	7.1	41
881	Angus	938	1010	1157.5	1265	1342.5	3.61	3.14	6.75	105	5.4	35
917	Brangus	655	758	843	964	1100	3.97	2.76	6.74	105	6.6	33
878	Simmental	1050	1110	1215	1330	1440	3.48	3.24	6.73	105	6.6	39
889	Angus	842	918	1047.5	1135	1240	3.55	3.07	6.62	103	3.9	37.5
905	Angus	969.5	1040	1152.5	1255	1380	3.67	2.94	6.61	103	5.5	36
909	Limousin	804	890	990	1075	1157.5	3.16	3.44	6.60	103	6.4	32
891	Angus	950	1025	1170	1240	1340	3.48	3.07	6.55	102	5.5	39
899	Brangus	673	746	854	960	1050	3.37	3.04	6.41	100	6.5	33
887	Angus	830	898	1015	1105	1187.5	3.19	3.20	6.39	100	5.7	-
907	Limousin	786	894	997.5	1085	1135	3.12	3.27	6.39	100	6.2	34
888	Angus	792	898	1020	1040	1145	3.15	3.15	6.30	98	6.3	38
912	Limousin	1092.5	1180	1262.5	1370	1445	3.15	3.15	6.30	98	6.8	34
894	Hereford	781	848	909	1055	1157.5	3.36	2.86	6.22	97	4.8	33
895	Hereford	826	900	995	1115	1200	3.34	2.88	6.22	97	5.1	34.5
873	Charolais	765	842	929	1060	1152.5	3.46	2.71	6.17	96	6.9	38
884	Angus	892	970	1060	1160	1252.5	3.22	2.91	6.13	96	5.0	36
882	Angus	807	888	1027.5	1115	1187.5	3.40	2.71	6.10	95	4.4	34

Test ID	Breed	Start Weight, lbs	28-day Weight, lbs	56-day Weight, lbs	84-day Weight, lbs	Final Weight, lbs	Final Test ADG ^a , lbs/d	Final Test WDA ^b , lbs/d	Final Test Index ^c , lbs/d	Final Index Ratio	Frame Score	Scrotal Circ.
918	Brangus	494.5	582	679	784	849	3.17	2.86	6.02	94	5.4	-
906	Angus	855	936	987	1105	1187.5	2.97	3.01	5.98	93	5.4	39
913	Angus	657	718	798	908	1005	3.11	2.85	5.95	93	5.3	34
901	Angus	900	972	1070	1180	1235	2.99	2.95	5.94	93	4.6	37
904	Angus	823	880	977	1070	1197.5	3.34	2.59	5.94	93	4.7	38
920	Brangus	604	708	798	936	990	3.45	2.49	5.93	93	4.5	32
896	Brangus	711	788	885	972	1037.5	2.92	3.02	5.93	93	6.9	31.5
877	Charolais	745	820	882	1020	1107.5	3.24	2.57	5.81	91	6.6	37
919	Brangus	528	608	738	836	919	3.49	2.29	5.78	90	4.8	34
890	Angus	796	880	960	1030	1085	2.58	2.77	5.35	83	4.3	34
893	Hereford	699	738	832	920	1022.5	2.89	2.30	5.19	81	4.0	36
900	Brangus	605	664	677	798	897	2.61	2.58	5.18	81	5.2	32
898	Brangus	668	694	761	836	918	2.23	2.64	4.87	76	6.3	36.5
872	Angus	660	692	788	834	935	2.46	2.40	4.86	76	5.1	-
883	Gertrudis	966	1035	1020	1050	1117.5	1.35	2.45	3.80	59	5.3	33
897	Brangus	675	-	-	-	-	-	-	-	-	-	-

^aFinal Test ADG = average daily gain during the 112-day test.

^bFinal Test WDA = weight per day of age for each bull from birth until the last day of the test.

^cFinal Test Index = the sum of Final Test ADG and Final Test WDA.