UF UNIVERSITY of FLORIDA
IFAS Extension

AN284

The Florida Bull Test 2011-2012[1]

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Test Procedures

The 2011-2012 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 based on consignor and breed (8–12 bulls per pen) 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 42% pelleted soy hulls, 41% pelleted corn gluten meal, 12% loose peanut hulls, and 5% molasses liquid supplement containing vitamins, minerals, and ionophore (monensin) on a dry matter (DM) basis. The diet was formulated to contain 16.3% crude protein (CP) and 0.51 Mcal net energy of gain (NEg) per 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. On the pasture, bulls remained in the same groups that were assigned in the pens in the Feed Efficiency Facility. Bulls also continued receiving free-choice access to the same diet they were fed in the Feed Efficiency Facility, with the addition of free-choice bermudagrass hay. 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 the 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

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. 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).

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Test Rules and Regulations

General Policies and Procedures

1. Bulls must be born between September 1 and December 31, 2010.

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.

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. In order to participate, each bull must have a registration certificate and pedigree when delivered to the test station.

5. A bull should weigh 2.5 lb/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 three 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 Angus bull in the test was R & A Bold Image 817 owned by R & A Angus of Mebane, NC, which indexed 135 with an ADG of 5.23 lb/day and WDA of 3.24 lb/day. The top SimAngus bull in the test, J&W Mr. Powder River owned by J & W Simmentals from Headland, AL, was ranked second overall and indexed 125 with an ADG of 3.97 lb/day and WDA of 3.87 lb/day.

The top Simmental bull, J & W Heartbreaker, was also owned by J & W Simmentals, ranked third overall, and indexed 122 with an ADG of 4.00 lb/day and WDA of 3.68 lb/day. The top Brahman bull, FF Mr. Ruben Duno Manso 103 owned by Ford Farms from Malone, FL, was ranked 42 overall and indexed 90 with an ADG of 2.96 lb/day and WDA of 2.69 lb/day. The top Hereford bull, JTN Anhinga K16 R08 X15 owned by Taylor Neighbors from Americus, GA, was ranked 45 overall and indexed 91 with an ADG of 2.73 lb/day and WDA of 2.98 lb/day. Feed efficiency data is summarized in Table 1.

Sale Summary

The Florida Bull Test Sale was held on January 14, 2012. Of the 63 bulls tested, 57 qualified for the sale, but only 45 were on offer at the NFREC in Marianna, FL. The sale grossed $127,550 with an average of $2,834 per lot. Angus bulls averaged $2,525 on 26 lots; Hereford bulls averaged $2,850 on 2 lots; SimAngus bulls averaged $3,338 on 8 lots; and Simmental bulls averaged $3,278 on 9 lots. The highest selling bull was lot 3, J&W Heartbreaker, selling for $4,750. He was purchased by Southern Cattle Company of Marianna, FL. The consignor was J&W Simmentals of Headland, AL.

2012-2013 Florida Bull Test Dates

Nomination deadline – June 15, 2012

Delivery date – July 31, 2012

Test begins (initial weights) – August 21 and 22, 2012

28-day weight – September 19, 2012

56-day weight – October 16 and 17, 2012

84-day weight – November 14, 2012

Test ends (final weights) – December 11 and 12, 2012

Bull Test Sale – January 19, 2013

References

Maddock, T.D., and G. C. Lamb. 2009. *The Economic Impact of Feed Efficiency in Beef Cattle*. AN217. 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 2011-2012 Florida Bull Test

Item	Daily Intake, lb/day	RFI, kg/day	Feed:Gain
Average	23.31	0.00	8.51
Range	17.27 – 32.46	-3.03 – 2.36	5.48 – 16.18

Table 2. 2011-2012 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., cm
923	Angus	929	1085	1187.5	1365	1515	5.23	3.24	8.48	135	6.1	41
939	SimAngus	993	1140	1222.5	1290	1437.5	3.97	3.87	7.84	125	7.3	40
940	Simmental	1057.5	1175	1287.5	1355	1505	4.00	3.68	7.68	122	6.7	37
959	SimAngus	1032.5	1130	1232.5	1335	1510	4.26	3.33	7.59	121	6.8	40
947	Simmental	972	1090	1180	1295	1437.5	4.16	3.41	7.56	120	6.6	40
958	SimAngus	838	978	1075	1170	1312.5	4.24	3.01	7.25	115	6.4	39
981	SimAngus	959	1085	1180	1300	1410	4.03	3.17	7.20	115	6.0	39
961	Angus	1125	1215	1300	1425	1535	3.66	3.51	7.17	114	6.3	40
924	Angus	993	1040	1157.5	1300	1437.5	3.97	3.16	7.13	114	6.0	38
970	Angus	792	868	986	1105	1247.5	4.07	2.96	7.03	112	6.6	37
955	Angus	959	1055	1147.5	1260	1395	3.89	3.11	7.01	112	5.6	36
973	Angus	774	830	943	1110	1245	4.21	2.80	7.00	112	4.7	40
942	Angus	918	1010	1070	1200	1340	3.77	3.22	6.99	111	5.5	38
946	SimAngus	1027.5	1140	1222.5	1320	1420	3.50	3.45	6.95	111	7.2	42
952	Angus	830	918	1010	1135	1255	3.79	3.12	6.92	110	5.4	33
926	Braford	643	746	829	930	1045	3.59	3.22	6.80	108	5.6	35
964	Angus	1037.5	1095	1210	1335	1442.5	3.62	3.16	6.77	108	5.5	40
963	Angus	756	846	903	1035	1142.5	3.45	3.25	6.70	107	6.0	37
922	Angus	778	826	904	1075	1180	3.59	3.08	6.67	106	4.9	36
975	Angus	858	972	1037.5	1170	1287.5	3.83	2.83	6.66	106	4.6	38
966	Angus	682	746	828	970	1080	3.55	3.06	6.61	105	5.7	37
960	Angus	775	888	972	1055	1160	3.44	3.15	6.59	105	6.5	36
938	SimAngus	878	932	1050	1155	1240	3.23	3.34	6.57	105	6.3	38
933	Simmental	901	996	1092.5	1190	1307.5	3.63	2.93	6.55	104	5.4	36
936	Simmental	699	802	892	990	1080	3.40	3.09	6.50	103	4.7	36
934	Simmental	836	954	1030	1110	1235	3.56	2.82	6.38	102	5.5	38
974	Angus	824	902	960	1090	1222.5	3.56	2.80	6.36	101	4.7	37
965	Angus	856	932	1012.5	1095	1200	3.07	3.26	6.33	101	5.7	39
957	Simmental	1047.5	1130	1210	1310	1412.5	3.26	3.06	6.32	101	6.7	37
925	Braford	618	724	800	908	1007.5	3.48	2.84	6.32	101	4.4	34
956	SimAngus	910	998	1112.5	1230	1300	3.48	2.82	6.30	100	5.1	36
954	Angus	840	928	986	1105	1197.5	3.19	3.07	6.26	100	5.7	38
950	Angus	827	912	990	1090	1197.5	3.31	2.90	6.21	99	4.8	37

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., cm
930	SimAngus	844	934	983	1060	1207.5	3.25	2.96	6.21	99	5.5	39
962	Angus	1080	1135	1212.5	1340	1417.5	3.01	3.17	6.18	98	6.6	42
967	Angus	815	900	944	1070	1175	3.21	2.96	6.17	98	5.0	41
929	Simmental	815	892	939	1050	1170	3.17	2.97	6.14	98	5.3	40
968	Angus	808	878	975	1070	1165	3.19	2.95	6.14	98	5.6	36
976	Angus	916	1010	1070	1130	1255	3.03	2.91	5.93	94	4.7	37
927	Angus	600	686	779	886	987	3.46	2.43	5.89	94	4.2	32
969	Angus	781	862	953	1035	1147.5	3.27	2.57	5.84	93	3.8	34
932	Simmental	992	1075	1155	1245	1322.5	2.95	2.87	5.82	93	6.1	40
951	Angus	822	878	926	994	1127.5	2.73	3.05	5.77	92	5.2	34
928	Angus	624	724	776	868	985	3.22	2.50	5.72	91	4.9	34
945	Hereford	919	1005	1012.5	1125	1225	2.73	2.98	5.71	91	5.6	38
948	SimAngus	963	1025	1065	1180	1275	2.79	2.91	5.70	91	5.4	42
983	Brahman	891	986	1062.5	1135	1222.5	2.96	2.69	5.65	90	6.5	33
953	Angus	814	900	949	1055	1145	2.96	2.67	5.62	90	5.1	39
978	Angus	774	822	903	1015	1115	3.04	2.56	5.60	89	4.7	38
972	Angus	806	834	901	994	1132.5	2.92	2.63	5.54	88	3.6	35
980	Simmental	878	964	1045	1110	1190	2.79	2.70	5.48	87	5.2	38
971	Angus	788	898	993	1035	1117.5	2.94	2.53	5.48	87	3.9	37
979	Angus	691	752	810	904	990	2.67	2.80	5.47	87	3.9	35
949	Angus	819.5	896	943	996	1112.5	2.62	2.80	5.41	86	4.3	37
977	Angus	767	820	895	978	1095	2.93	2.46	5.39	86	3.3	35
944	Hereford	925	988	1032.5	1100	1202.5	2.48	2.88	5.36	85	4.9	36
982	Brahman	887	982	1060	1125	1195	2.75	2.58	5.33	85	4.9	33
935	SimAngus	631	676	742	818	915	2.54	2.75	5.28	84	5.4	34
937	SimAngus	529	584	651	736	835	2.73	2.51	5.24	83	4.9	35
931	SimAngus	968	1035	1137.5	1185	1240	2.43	2.79	5.22	83	5.0	38
943	Hereford	832	902	916	1000	1100	2.39	2.62	5.01	80	4.3	35
941	Angus	931	972	998	1035	1105	1.55	2.66	4.22	67	5.6	-
921	Angus	1047.5	1110	-	-	-	-	-	-	-	-	-

[a] Final Test ADG = average daily gain during the 112-day test.
[b] Final Test WDA = weight per day of age for each bull from birth until the last day of the test.
[c] Final Test Index = the sum of Final Test ADG and Final Test WDA.