

2014 POLK COUNTY YOUTH FAIR STEER CONTEST

Anim #	Live Wt,lbs	HCW<lbs	REA,in2	Fat thk,in	%KPH	IMF,%	Marbling	Qual. Grc	Yield Grd	Placing
103	1338	830	14.8	0.42	2.5	4.5 SM	C-	2.5	2.5	2
111	1370	849	16.1	0.69	2.5	4.4 SM	C-	2.8		
40	1304	808	16.0	0.6	2.5	4.1 SM	C-	2.4		
38	1058	656	11.4	0.48	2.5	4.1 SM	C-	3.1		3
122	1272	789	12.6	0.71	2.5	4.0 SM	C-	3.7		
115	1096	680	14.3	0.45	2.5	4.0 SM	C-	2.1		1
128	1476	915	13.9	0.38	2.5	4.0 SM	C-	3.0		
133	1174	728	15.0	0.42	2.5	3.9 SL+	SE+	2.0		4
49	1066	661	12.2	0.35	2.5	3.8 SL+	SE+	2.5		
105	1186	735	12.7	0.33	2.5	3.8 SL+	SE+	2.6		
46	1236	766	13.0	0.52	2.5	3.8 SL+	SE+	3.0		
131	1338	830	15.5	0.48	2.5	3.7 SL	SE	2.4		9
110	1272	789	14.0	0.53	2.5	3.7 SL+	SE+	2.8		
18	1014	629	11.1	0.24	2.5	3.6 SL+	SE+	2.4		10
17	1244	771	14.8	0.51	2.5	3.4 SL+	SE+	2.5		
11	1274	790	14.1	0.39	2.5	3.4 SL+	SE+	2.5		
130	1190	738	13.3	0.26	2.5	3.3 SL	SE	2.2		6
124	1184	734	13.8	0.4	2.5	3.3 SL+	SE+	2.4		
13	1054	653	13.6	0.37	2.5	3.3 SL+	SE+	2.1		5
107	1380	856	16.6	0.46	2.5	3.3 SL+	SE+	2.1		
126	1300	806	15.1	0.53	2.5	3.2 SL+	SE+	2.5		
51	1556	965	15.8	0.37	2.5	3.2 SL+	SE+	2.5		
106	1342	832	15.0	0.41	2.5	3.2 SL+	SE+	2.4		7
117	1390	862	16.6	0.39	2.5	3.2 SL+	SE+	1.9		
135	1115	691	12.3	0.39	2.5	3.1 SL+	SE+	2.7		
19	1274	790	14.7	0.53	2.5	3.1 SL+	SE+	2.6		
16	1206	748	12.7	0.38	2.5	3.1 SL+	SE+	2.7		
129	1128	699	12.9	0.37	2.5	3.0 SL	SE	2.5		
41	1354	839	15.6	0.47	2.5	3.0 SL+	SE+	2.4		8
47	1166	723	11.9	0.55	2.5	3.0 SL+	SE+	3.3		
14	1090	676	11.3	0.28	2.5	3.0 SL+	SE+	2.6		
120	1036	642	11.1	0.52	2.5	3.0 SL+	SE+	3.2		
1	1290	800	13.3	0.38	2.5	3.0 SL+	SE+	2.7		
5	1372	851	15.2	0.44	2.5	2.9 SL	SE	2.5		
136	1182	733	13.0	0.33	2.5	2.9 SL	SE	2.5		
109	1250	775	15.5	0.43	2.5	2.8 SL	SE	2.1		
123	1334	827	14.0	0.34	2.5	2.8 SL	SE	2.5		
118	1242	770	15.0	0.39	2.5	2.8 SL	SE	2.1		
114	1198	743	17.8	0.37	2.5	2.6 SL	SE	1.1		
33	1196	742	14.2	0.28	2.5	2.6 SL	SE	2.0		
8	1140	707	13.6	0.39	2.5	2.6 SL	SE	2.3		
2	1258	780	14.6	0.33	2.5	2.5 SL	SE	2.1		
12	1247	773	13.0	0.35	2.5	2.5 SL	SE	2.6		
20	1344	833	13.8	0.33	2.5	2.5 SL	SE	2.6		
42	1392	863	15.4	0.33	2.5	2.5 SL	SE	2.2		
22	1368	848	14.6	0.3	2.5	2.4 SL	SE	2.3		
15	1080	670	12.1	0.25	2.5	2.3 SL	SE	2.3		
102	1082	671	13.2	0.32	2.5	2.3 SL	SE	2.1		
7	1036	642	10.8	0.19	2.5	2.3 SL	SE	2.4		
134	1076	667	11.6	0.26	2.5	2.3 SL	SE	2.5		
4	1128	699	13.7	0.45	2.5	2.3 SL	SE	2.4		
37	1126	698	12.7	0.37	2.5	2.3 SL	SE	2.5		
3	1192	739	15.0	0.53	2.5	2.2 TR	STA	2.3		
132	1260	781	14.5	0.27	2.5	2.1 TR	STA	2.0		
119	1006	624	12.6	0.4	2.5	1.9 TR	STA	2.3		

ASSUMES A 62% DRESSING PERCENTAGE AND 2.5% KPH FAT  
 STA=STANDARD; SE=SELECT; C=CHOICE



The following is a brief explanation of the values reported on the PCYF Market Steer Carcass Contest Results. For more information about ultrasound and evaluating carcass merit of youth market cattle, please refer to UF/IFAS Publication #AN279 which can be found online at [www.edis.ifas.ufl.edu/an279](http://www.edis.ifas.ufl.edu/an279) or by contacting your Extension Livestock Agent at (863) 534-1048 or [bccarlis@ufl.edu](mailto:bccarlis@ufl.edu).

**HCW<lbs** = Hot Carcass Weight. The hot or un-chilled weight of the steer in pounds after slaughter and after the hide, head, intestinal tract, and internal organs have been removed. On average, the HCW is approximately 62% of his live weight. Price discounts usually occur for carcasses weighing fewer than 550 pounds or more than 900 pounds.

**REA,in2** = Ribeye Area in inches squared. This is the total area of the ribeye muscle between the 12<sup>th</sup> and 13<sup>th</sup> ribs. The tech used the ultrasound device to generate a high-quality image of the ribeye. The computer is used to trace the ribeye and generate a measurement. The measurement is expressed in square inches. Ribeye area is used in the equation to determine yield grade.

**Fat thk,in** = Fat thickness in inches. Fat thickness is a measure of the thickness of external fat on a carcass. This measurement is also taken between the 12<sup>th</sup> and 13<sup>th</sup> rib at a point three-fourths of the ribeye length from the chine bone (vertebrate). When the tech used the ultrasound device to generate the high-quality image, the computer was measured the fat thickness three-fourths the length of the ribeye from the spine of the animal. Fat thickness is a major influence determining yield grade of the carcass.

**%KPH** = Percent of Kidney, Pelvic and Heart Fat, or internal fat. %KPH is as a percentage of the HCW. The average KPH percentage for fed cattle was 2.3% in the 2005 National Beef Quality Audit. The KPH percentage used for the Carcass Contest calculations is 2.5%. %KPH is used in the yield grade equation.

**IMF,%** = Percent of Intra-Muscular Fat. Another image is scanned by the ultrasound tech of the ribeye muscle between the 12<sup>th</sup> and 13<sup>th</sup> to measure intramuscular fat within the ribeye. The computer interprets the image to predict the percentage of intramuscular fat. The percentage of intramuscular fat within the ribeye associates with an approximate USDA marbling score. Degree of marbling is the primary determinant of quality grade.

**Marbling** = Marbling or Intramuscular Fat. Marbling is the distribution of fat within the lean of the ribeye muscle. The amount of intramuscular fat is the driving force in consumer eating satisfaction of beef tenderness, juiciness, and flavor. If the animal is less than 30 months of age, as market steer projects must be at the end of the project, USDA marbling score directly associates with USDA quality grade (Table 1; USDA-AMS 1997).

**Table 1.** Estimated carcass USDA marbling score from live cattle ultrasound.

Ultrasound Intramuscular fat, %	USDA marbling score	USDA quality grade
≤ 1.9	Traces (TR) 00-90	Standard +
2.0-3.0	Slight (SL) 00-40	Select -
3.1-3.9	Slight (SL+) 50-90	Select +
4.0-5.5	Small (SM) 00-90	Choice -
5.6-6.9	Modest (MT) 00-90	Choice o
7.0-8.5	Moderate (MD) 00-90	Choice +
8.6-9.9	Slightly Ab (SLAB) 00-90	Prime -
10.0+	Mod Ab (MAB) 00-90	Prime o

**Qual. Grd** = Quality Grade. A quality grade is an evaluation of the factors that influence beef tenderness, juiciness and flavor, or eating quality. Quality grades are based on degree of marbling and degree of carcass maturity. Carcass maturity groups are ranked from A to E and refer to the age of the animal. Maturity group A cattle are estimated to be from 9 to 30 months of age at slaughter.

**Yield Grd** = Yield Grade. Yield grade is an estimate of the amount of boneless, closely trimmed, retail cuts from the round, loin, rib, and chuck. Yield grades are expressed as numeric scores of 1, 2, 3, 4, and 5. Yield grade 1 carcasses are expected to have the greatest percentage of boneless, closely trimmed, retail cuts. Yield grade 5 carcasses would have the lowest percentage of boneless, closely trimmed, retail cuts.