

2023 Shenandoah County Fair Lamb Carcass Ultrasound Contest

Tag	Exhibitor Last Name	Exhibitor First Name	Weight	HCW	Rib Fat	REA	RREA	Est. BW	YG	BCRTC%	Rank
149	Whetzel	Luke	131	71	0.18	04.0	1.48	02.2	2.18521	43.39	1
139	Whetzel	Luke	151	82	0.31	04.5	1.49	02.3	3.54877	42.53	2
116	Mongold	Stryker	113	61	0.20	03.3	1.47	02.2	2.37154	42.35	3
077	Fisher	Olivia	142	77	0.18	03.8	1.48	02.2	2.18027	42.31	4
115	Mongold	Stryker	97	52	0.14	02.8	1.46	02.2	1.8217	42.21	5
097	Jones	Karissa	124	67	0.18	03.3	1.47	02.2	2.19366	41.93	6
142	Yonts	Morgan	129	70	0.31	03.8	1.48	02.3	3.53163	41.78	7
112	Lutz	Alexia	113	61	0.23	03.2	1.46	02.3	2.7199	41.73	8
068	Copp	Sadie	121	65	0.19	03.2	1.46	02.2	2.30991	41.73	9
Y059	French	Mary	144	78	0.21	03.7	1.47	02.2	2.49356	41.71	10
157	Pool	Taylor	127	69	0.20	03.3	1.47	02.2	2.37154	41.70	11
136	Stern	Nicholas (Carson)	110	59	0.10	02.7	1.45	02.1	1.43749	41.67	12
073	Dysart	Samuel	107	58	0.17	02.8	1.46	02.2	2.12915	41.57	13
057	Clark	Carson	137	74	0.17	03.3	1.47	02.2	2.09774	41.52	14
121	Poyser	Sarah	122	66	0.24	03.3	1.47	02.3	2.78849	41.45	15
072	Dysart	Brynalee	107	58	0.08	02.4	1.45	02.1	1.196162	41.43	16
071	Dysart	Brynalee	113	61	0.18	02.9	1.46	02.2	2.20363	41.41	17
109	Kibler	Maggie	102	55	0.14	02.5	1.45	02.2	1.77029	41.33	18
268	Kibler	Brant	142	77	0.23	03.6	1.47	02.3	2.7199	41.29	19
134	Stern	Addalynne	115	62	0.13	02.7	1.45	02.2	1.68004	41.21	20
070	Dysart	Braylei	94	51	0.10	02.2	1.44	02.1	1.43749	41.21	21
110	Lutz	Adelynn	125	68	0.25	03.3	1.47	02.3	2.89382	41.17	22
053	Berry	Kylee	116	63	0.21	02.9	1.46	02.2	2.54861	41.07	23
102	Kibler	Faith	95	51	0.10	02.1	1.44	02.1	1.384252	41.06	24
098	Jones	Karissa	136	73	0.26	03.4	1.47	02.3	2.97406	40.98	25
130	Sine	Brooke	129	70	0.21	03.1	1.46	02.2	2.47499	40.95	26
428	Gochenour	Harper	111	60	0.25	02.9	1.46	02.3	2.93662	40.95	27
114	Miller	Emma	108	58	0.18	02.6	1.45	02.2	2.16679	40.84	28
056	Clark	Emmalee	131	71	0.31	03.4	1.47	02.3	3.47964	40.83	29
205	Clark	Carson	144	78	0.20	03.3	1.47	02.2	2.41058	40.73	30
118	Peer	Bryson	102	55	0.14	02.3	1.45	02.2	1.84874	40.68	31

Tag	Exhibitor Last Name	Exhibitor First Name	Weight	HCW	Rib Fat	REA	RREA	Est. BW	YG	BCRTC%	Rank
266	Pool	Allie	155	84	0.27	03.7	1.47	02.3	3.10545	40.68	32
119	Poyser	Lilly	134	72	0.27	03.3	1.47	02.3	3.10545	40.64	33
137	Stern	Samuel	116	63	0.21	02.7	1.45	02.2	2.47499	40.62	34
082	Hausenfluck	Grant	115	62	0.30	03.0	1.46	02.3	3.38425	40.52	35
083	Hausenfluck	Kenlee	140	76	0.28	03.4	1.47	02.3	3.21167	40.51	36
085	Hawkins	George	141	76	0.25	03.3	1.47	02.3	2.9248	40.41	37
060	Cook	Tyler	135	73	0.18	02.9	1.46	02.2	2.16679	40.39	38
104	Kibler	Harlie	110	59	0.17	02.4	1.45	02.2	2.07291	40.39	39
106	Kibler	Lilianna	114	62	0.21	02.6	1.45	02.2	2.47499	40.34	40
107	Kibler	Mackenzie	91	49	0.16	02.0	1.44	02.2	1.96582	40.33	41
166	Yonts	Morgan	137	74	0.28	03.3	1.47	02.3	3.20315	40.31	42
135	Stern	Nicholas (Carson)	117	63	0.16	02.4	1.45	02.2	2.02577	40.30	43
065	Copp	Emily	122	66	0.25	02.9	1.46	02.3	2.89382	40.30	44
064	Copp	Emily	134	72	0.25	03.1	1.46	02.3	2.94368	40.26	45
058	Clark	Emmalee	143	77	0.23	03.1	1.46	02.2	2.65454	40.26	46
143	Reynolds	Kamden	109	59	0.16	02.3	1.45	02.2	1.99232	40.21	47
154	stern	carson	118	64	0.22	02.6	1.45	02.2	2.63054	40.12	48
147	Zirkle	Lizzi	128	69	0.19	02.6	1.45	02.2	2.26877	40.07	49
120	Poyser	Sarah	149	80	0.25	03.3	1.47	02.3	2.89382	40.04	50
145	Miller	Emma	114	62	0.15	02.2	1.44	02.2	1.86724	40.01	51
122	Reynolds	Kamden	126	68	0.18	02.5	1.45	02.2	2.1634	39.92	52
153	Kibler	Mackenzie	107	58	0.27	02.5	1.45	02.3	3.06088	39.91	53
264	French	Nate	141	76	0.20	02.8	1.46	02.2	2.44304	39.82	54
161	Reynolds	Sophia	116	63	0.20	02.4	1.45	02.2	2.37154	39.80	55
063	Cook	Tysen	117	63	0.29	02.7	1.45	02.3	3.31812	39.78	56
069	Dysart	Braylei	115	62	0.28	02.6	1.45	02.3	3.16665	39.76	57
113	Lutz	Alexia	143	77	0.33	03.3	1.47	02.4	3.6972	39.74	58
093	Hoover	Kamden	119	64	0.25	02.6	1.45	02.3	2.85759	39.72	59
062	Cook	Tysen	119	64	0.40	03.1	1.46	02.4	4.41074	39.72	60
090	Hawkins	Tanner	135	73	0.30	03.0	1.46	02.3	3.42478	39.71	61
129	Sine	Brooke	131	71	0.29	02.9	1.46	02.3	3.26512	39.70	62
131	Springer	Aiden	123	66	0.13	02.2	1.44	02.2	1.72142	39.69	63

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099	Kibler	Brant	140	76	0.34	03.2	1.46	02.4	3.8253	39.53	64
267	Hoover	Kamden	131	71	0.26	02.7	1.45	02.3	2.99949	39.53	65
132	Springer	Aiden	111	60	0.17	02.0	1.44	02.2	2.12915	39.49	66
086	Hawkins	George	126	68	0.31	02.8	1.46	02.3	3.51248	39.46	67
095	Jennelle	Zacharay	128	69	0.40	03.1	1.46	02.4	4.41223	39.26	68
111	Lutz	Adelynn	148	80	0.40	03.4	1.47	02.4	4.35217	39.21	69
084	Hausenfluck	Kenlee	126	68	0.38	02.9	1.46	02.4	4.15828	39.17	70
124	Reynolds	Sophia	121	65	0.23	02.3	1.45	02.3	2.69919	39.17	71
088	Hawkins	Olivia	125	68	0.26	02.5	1.45	02.3	2.97406	39.16	72
061	Cook	Tyler	140	76	0.43	03.4	1.47	02.4	4.6707	39.14	73
101	Kibler	Faith	90	49	0.21	01.6	1.43	02.2	2.47499	39.14	74
126	Richards	Riley	114	62	0.18	02.0	1.44	02.2	2.16679	39.13	75
128	Sine	Brooke	140	76	0.37	03.2	1.46	02.4	4.14073	39.12	76
103	Kibler	Harlie	131	71	0.25	02.5	1.45	02.3	2.85759	39.12	77
074	Dysart	Samuel	155	84	0.21	02.8	1.46	02.2	2.47787	39.00	78
138	Stern	Samuel	132	71	0.28	02.6	1.45	02.3	3.21167	38.99	79
108	Kibler	Maggie	128	69	0.29	02.5	1.45	02.3	3.3058	38.75	80
089	Hawkins	Olivia	126	68	0.36	02.7	1.45	02.4	4.0097	38.73	81
105	Kibler	Lilianna	151	82	0.24	02.7	1.45	02.3	2.78849	38.71	82
067	Copp	Sadie	145	78	0.46	03.4	1.47	02.5	4.96837	38.70	83
081	Hausenfluck	Grant	124	67	0.39	02.8	1.46	02.4	4.32636	38.70	84
075	Fisher	Hannah	149	80	0.40	03.2	1.46	02.4	4.39131	38.57	85
078	Gochenour	Harper	140	76	0.42	03.1	1.46	02.4	4.60721	38.56	86
092	Hawkins	Tanner	123	66	0.38	02.6	1.45	02.4	4.17098	38.55	87
150	French	Nathanael	113	61	0.24	01.9	1.44	02.3	2.78849	38.46	88
087	Hawkins	George	126	68	0.42	02.8	1.46	02.4	4.62565	38.40	89
096	Jennelle	Zacharay	147	79	0.37	02.9	1.46	02.4	4.06809	38.15	90
091	Hawkins	Tanner	115	62	0.48	02.5	1.45	02.5	5.24738	37.78	91
080	Hausenfluck	Grant	121	65	0.34	02.1	1.44	02.4	3.8253	37.72	92
127	Richards	Riley	147	79	0.27	02.3	1.45	02.3	3.10103	37.60	93

Explanation of Carcass Data Column Headings

Rib Fat: Thickness of the fat from the ribeye muscle to the outer surface of the carcass measured at the midpoint of the ribeye at the 12th rib.

REA: Ribeye area or loin muscle area in inches squared at the location of the 12th and 13th rib.

YG: USDA yield grade($0.4 + (10 \times \text{Backfat})$). Predictor of expected yield of trimmed retail cuts. Yield grade 1=leanest 5=fattest.

HCW: Predicted Hot carcass weight with 54% dressing percentage.

BW: estimated body wall thickness using backfat

%BCTRC: Percentage of Boneless Closely-Trimmed Retail Cuts, represents the proportion of carcass that is saleable retail product.

RREA: Required Ribeye Area, or minimum loin muscle area expected for a given lambs weight class and carcass weight.

Lamb Ranking System

Ultrasound data and live weight were used to calculate Percentage of Boneless, Closely Trimmed Retail Cuts (%BCTRC).

%BCTRC was used to rank lambs. The formula for %BCTRC is $\%BCTRC = 49.936 - (0.0848 \times \text{hot carcass weight}) - (4.376 \times \text{fat depth}) - (3.530 \times \text{body wall thickness}) + (2.456 \times \text{ribeye area})$

Hot carcass weight assumed a 54% dress. Yield grades were calculated using backfat thickness.

Additional parameters were adopted from the State Fair of Virginia:

Minimum BF of 0.12 in.

Maximum BF of 0.35 in. (maximum Yield Grade of 3.9)

Minimum LMA for carcass weight using formula: $1.4 + (0.02 \times \text{HCW})$

Minimum carcass weight of 45.0 pounds

Scanning done by:

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