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Lamb Yield Grades - Symbols of Value

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U.S.D.A. yield grades provide an additional marketing tool for use by all who buy or sell live lambs and lamb carcasses. They are a means of identifying one of the important value-determining characteristics--the proportion of the carcass that can be sold as trimmed retail cuts.

U.S.D.A. yield grades for lamb have been available for industry use since March 1, 1969. They provide a nationally uniform method of identifying carcasses for differences in "cutability," specifically the yields of closely trimmed, boneless, retail cuts from the leg, loin, rack and shoulder.

The five U.S.D.A. yield grades are numbered 1 through 5. Yield grade 1 carcasses have the highest yields of retail cuts; yield grade 5, the lowest.

When used in conjunction with quality grades, yield grades can benefit all segments of the sheep industry.

For the producer - They provide a means to identify lambs for differences in yields of salable meat.

For the packer - They can help evaluate more precisely differences in value among the animals he buys and the meat he sells.

For the retailer - They provide a means for purchasing lamb with assurance as to its yield of retail cuts.

For the consumer - They provide an indirect means for reflecting consumer preferences for lamb--thick muscling and a minimum of excess fat.

Variations in yields of retail cuts among carcasses are accounted for chiefly by two considerations: (1) the amount of fat that must be trimmed from the carcass in making retail cuts and (2) the thickness and fullness

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of muscling. Yield grades are determined by using the following three factors (1) amount of external fat, (2) amount of kidney and pelvic fat and (3) conformation grade of the leg.

The amount of external fat is the most important yield grade factor since it is a good indicator of the amount of fat that is trimmed in making retail cuts. The amount of external fat is evaluated in terms of its thickness over the center of the rib eye muscle between the 12th and 13th ribs. If all other factors are equal, each .15-inch change in fat thickness over the rib eye makes a full yield grade change. The following chart shows the relationship between fat thickness and preliminary yield grade.

External Fat Thickness	Yield Grade
.05 inch	2.33
.10	2.66
.15	3.00
.20	3.33
.25	3.66
.30	4.00
.35	4.33
.40	4.66

Fat on the inside of the carcass around the kidneys and in the pelvic area is normally left in the carcass at time of slaughter. However, since most of this fat is removed in making retail cuts, increases in these fats decrease the yield of cuts.

The amount of kidney and pelvic fat is evaluated subjectively and expressed as a percentage of the carcass weight. An average lamb has about 3 to 3.5% of carcass weight in kidney and pelvic fat. All other factors being equal, a change of 4% of the carcass weight in kidney and pelvic fat makes a full yield grade change.

U.S.D.A. studies have shown that among lambs of the same degree of fatness those that have higher leg conformation grades have higher yields of retail cuts. The leg conformation is subjectively evaluated on the basis of the thickness of muscling in relation to length of the leg. An average lamb has a Choice leg conformation. A change of one full leg score grade only alters the yield grade by .15.

Evaluating slaughter lambs in terms of their yield grade is very useful in appraising their value. These grades provide a basis for pricing both slaughter lambs and carcasses in relation to their yield of salable meat to the consumer. Lambs having a high yield of retail cuts are thickly muscled with very little fat. Those that are very fat and thinly muscled have a low yield of retail cuts. Since fatness and muscling have opposite effects on yields of cuts, evaluating live animals for yield grade requires an ability to make separate, accurate evaluations of those two factors.

The following table shows a value per hundredweight comparison for Choice quality grade lambs of different yield grades.

Comparison of Yields of Retail Cuts and Retail Sale Values of Choice Lamb Carcasses

CHOICE LAMB Yield Grades		1		2		3		4		5	
Retail Cut	Price per pound	% of carcass	Value/cwt.	% of carcass	Value/cwt.	% of carcass	Value/cwt.	% of carcass	Value/cwt.	% of carcass	Value/cwt.
Leg, short cut	2.39	23.6	56.40	22.2	53.06	20.8	49.71	19.4	46.37	18.0	43.02
Sirloin	3.19	6.7	21.37	6.4	20.42	6.1	19.46	5.8	18.50	5.5	17.54
Short loin	3.90	10.4	40.56	10.1	39.39	9.8	38.22	9.5	37.05	9.2	35.88
Rack	3.59	8.1	29.08	7.9	28.36	7.7	27.64	7.5	26.92	7.3	26.21
Shoulder	2.16	24.9	53.78	23.8	51.41	22.7	49.03	21.6	46.66	20.5	44.28
Neck	1.34	2.2	2.95	2.1	2.81	2.0	2.68	1.9	2.55	1.8	2.41
Breast	1.18	9.8	11.56	9.8	11.56	9.8	11.56	9.8	11.56	9.8	11.56
Foreshank	1.77	3.5	6.20	3.4	6.02	3.3	5.84	3.2	5.66	3.1	5.49
Flank	1.59	2.3	3.66	2.3	3.66	2.3	3.66	2.3	3.66	2.3	3.66
Kidney	1.17	0.5	.59	0.5	.59	0.5	.59	0.5	.59	0.5	.59
Fat	.12	4.6	.55	8.2	.98	11.8	1.42	15.4	1.85	19.0	2.28
Bone	.03	3.4	.10	3.3	.09	3.2	.09	3.1	.09	3.0	.09
Total		100.0	226.80	100.0	218.35	100.0	209.90	100.0	201.46	100.0	193.01

Differences in retail value between yield grades -- 8.45 per cwt. of carcass. The comparisons reflect average yields of retail cuts from lamb carcasses typical of the midpoint of each of the U.S.D.A. yield grades and average prices for U.S.D.A. Choice lamb during April, 1979.

From U.S.D.A. Livestock, Meat, Wool Market News, Weekly Summary and Statistics, April 10, 1979.

In summary, the chart shows that for all of the retail cuts from the leg to the foreshank, the individual retail cut as a percentage of carcass weight decreases as you go from yield grade 1 to 5. The chart also shows the increase in trimmable fat as a percent of carcass weight as you move from yield grade 1 to 5. The increase is from 4.6 to 19.0%.

Lamb yield grades are a benefit to all segments of our livestock industry. Used in conjunction with quality grades, yield grades enable sellers and buyers to arrive at prices commensurate with value. This results in greater marketing efficiency and assurance that consumer preferences are relayed back through the marketing channels to the producer.