

EXPLANATION OF FACTORS USED IN SLAUGHTER CATTLE YIELD AND QUALITY GRADING

Grades of slaughter cattle are intended to be directly related to the grade of the carcasses they produce. To accomplish this they are based on two factors: (1) quality or palatability indicating characteristics of the lean referred to as "quality grade" & (2) quantity or cutability based on the indicated carcass percent of trimmed boneless major retail cuts referred to as "yield grade".

Quality Grade: Slaughter cattle quality grades are based on palatability factors. Quality is evaluated primarily by finish, age & quality (marbling, maturity, color, firmness & texture of lean). Estimate to nearest 1/3 of grade (Prime or Choice), 1/2 grade (Select or Standard) & Utility.

Yield Grade: The yield grades for slaughter cattle (U.S. #1, U.S. #2, U.S. #3, U.S. #4, U.S. #5) are based on the same factors as used in the official yield grade standards for beef carcasses. Those factors are as follows:

- 1) Fat Thickness at the 12th Rib: One measurement over the ribeye at the 12th rib. Range from 0.1 to 1.0 inch.
- 2) %KPH: Kidney, pelvic and heart fat expressed as a percent of carcass weight. Range from 1% to 6%.
- 3) Carcass Weight: Live Weight X Dressing Percentage
- 4) Ribeye Area: Estimate in sq. inches at 12th rib. Average is 1.1 sq. inches per 100 pounds live weight.

USDA YIELD GRADE	PERCENT RETAIL CUTS	FACTORS AFFECTING CUTABILITY	CHANGE REQUIRED TO MAKE ONE YIELD GRADE CHANGE
1	≥52.4%	Fat over the ribeye	.4 inch
2	50.1% thru 52.3%	%KPH	5.0%
3	47.8% thru 50.0%	Ribeye area	3 inches sq.
4	45.5% thru 47.7%	Warm carcass weight	250 pounds
5	≤45.4%		

Dressing Percentage: Range from 57% to 67%. Mainly affected by the amount of fill; degree of finish; weight of hide, head and shanks and muscling.

Percent Cutout: percent retail cuts or carcass percent of boneless, closely trimmed retail cuts from the loin, rib, round and chuck. Range from 43% to 55%. Mainly influenced by percent trimmable fat. (Base: 1,000 lb. steer; .4 inch fat; 3.5% KPH; 11.0 square inch ribeye = 3.0 yield grade = 50% cutout.)

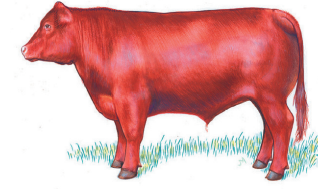
GUIDE TO EVALUATION OF SLAUGHTER CATTLE U.S. SLAUGHTER STEER GRADES

U.S. YIELD GRADES

U.S. QUALITY GRADES



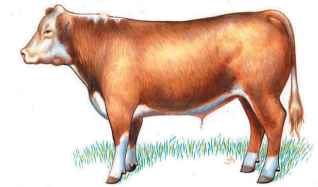
Yield Grade 1



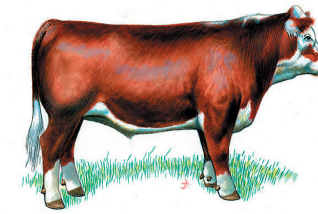
Prime



Yield Grade 2



Choice



Yield Grade 3



Select



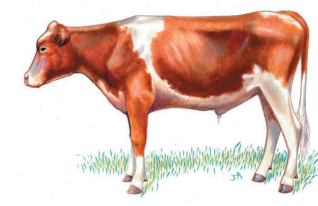
Yield Grade 4



Standard



Yield Grade 5



Utility

LIVE CATTLE EVALUATION

ANIMAL 1	EST.	ACT.	ANIMAL 2	EST.	ACT.
Description			Description		
Live Weight			Live Weight		
Dressing %			Dressing %		
Carcass Wt.			Carcass Wt.		
Fat Thickness			Fat Thickness		
Ribeye Area			Ribeye Area		
Percent KPH			Percent KPH		
Yield Grade (to nearest tenth)			Yield Grade (to nearest tenth)		
Quality Grade (to nearest third)			Quality Grade (to nearest third)		

ANIMAL 3	EST.	ACT.	ANIMAL 4	EST.	ACT.
Description			Description		
Live Weight			Live Weight		
Dressing %			Dressing %		
Carcass Wt.			Carcass Wt.		
Fat Thickness			Fat Thickness		
Ribeye Area			Ribeye Area		
Percent KPH			Percent KPH		
Yield Grade (to nearest tenth)			Yield Grade (to nearest tenth)		
Quality Grade (to nearest third)			Quality Grade (to nearest third)		

USDA BEEF YIELD GRADE SHORT CUT METHOD

Best 1 2 3 4 5

Yield Grade 3.0 = 0.4" FT – 600 lb. CW – 11.0 sq. in. REA – 3.5% KPH

★ – **Preliminary Yield Grade Starting Point**

For every .1" increase in adjusted 12-13th rib fat thickness, PYG increases by .25

<u>12-13th Rib Fat</u>	<u>PYG</u>
0.00	2.00
0.10	2.25
0.20	2.50
0.30	2.75
0.40	3.00
0.50	3.25
0.60	3.50
0.70	3.75
0.80	4.00

Adjustment 1 – Carcass Weight

For every 100 lb. change from a 600 lb. carcass, adjust the PYG by ± .4

<u>Carcass Wt. (Live Wt.63%)</u>	<u>Adj. 1</u>
900 (1429)	+1.2
850 (1350)	+1.0
800 (1270)	+0.8
750 (1190)	+0.6
700 (1111)	+0.4
650 (1031)	+0.2
600 (952)	0.0
550 (873)	-0.2
500 (793)	-0.4

Adjustment 2 – Ribeye Area

For every 1 square inch from an 11.0 sq. in. ribeye area, adjust the PYG by ± .33

<u>Ribeye Area (in²)</u>	<u>Adj. 2</u>
14.0	-.99
13.5	-.82
13.0	-.66
12.5	-.49
12.0	-.33
11.5	-.16
11.0	0.00
10.5	+.16
10.0	+.33

Adjustment 3 – %Kidney, Pelvic & Heart Fat

For every 1.0% change in %KPH from 3.5%, adjust the PYG by ± .2

<u>%KPH</u>	<u>Adj. 3</u>
1.0	-.50
1.5	-.40
2.0	-.30
2.5	-.20
3.0	-.10
3.5	0.00
4.0	+.10
4.5	+.20
5.0	+.30

