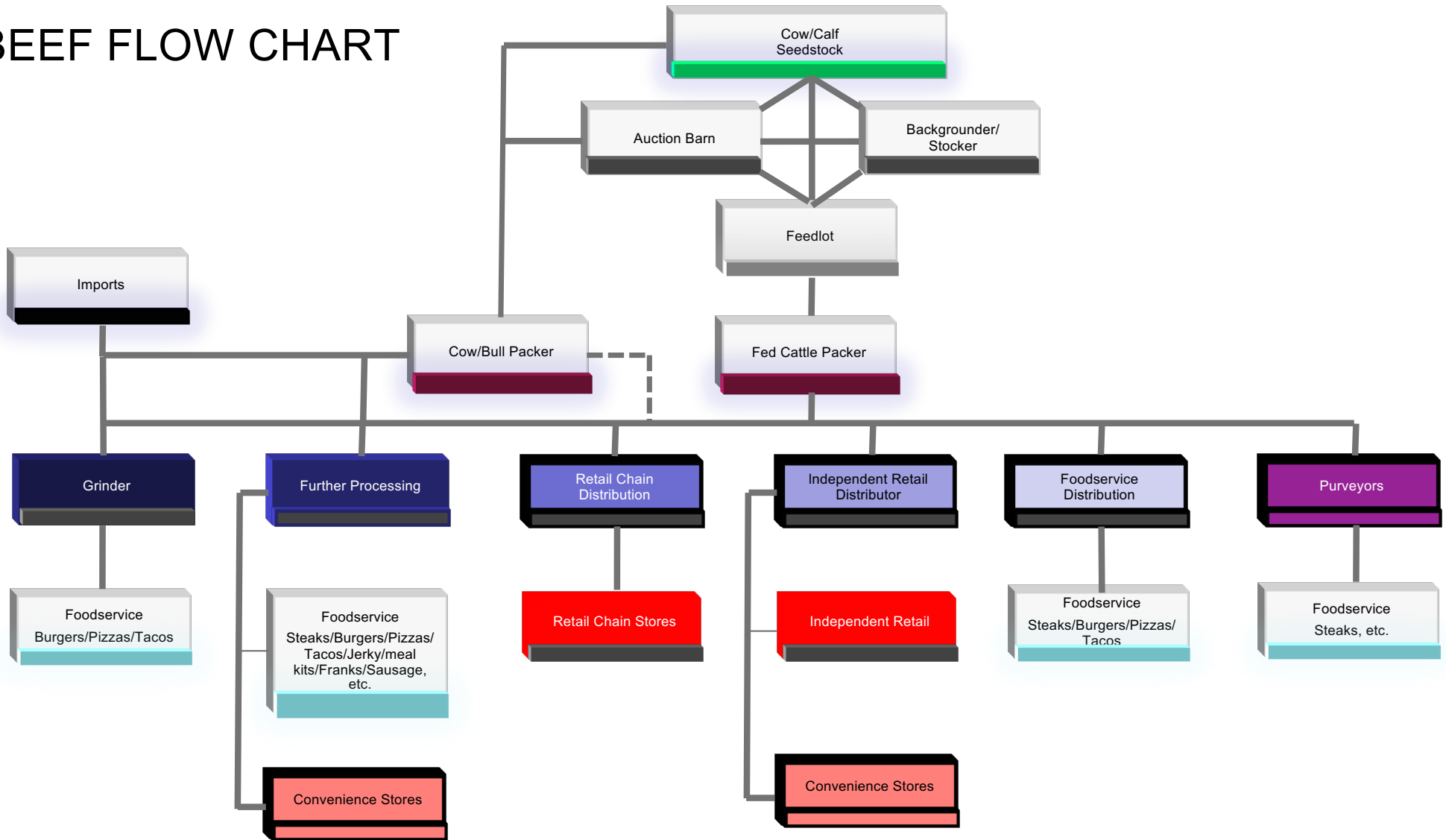
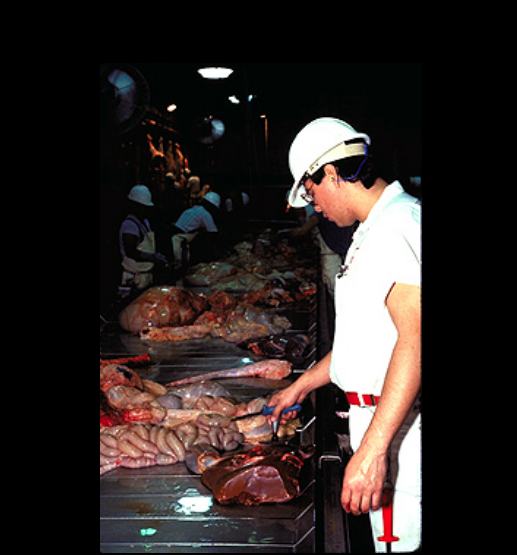


An anatomical dissection of a ribcage, showing the ribs, intercostal muscles, and internal organs. The dissection is performed on a cadaver, and the ribcage is open, revealing the underlying structures. The text is overlaid on a dark red rectangular background.

**What Happens After the Hide
Comes Off?
Dr. Davey Griffin**

BEEF FLOW CHART





63%

1400 lb.

Hide & Offal

By-Products

Drop

37%

Pharmaceuticals

Variety Meats

882 lb.





Relationship Between Marbling, Maturity and Beef Carcass Grade*

		Maturity**						
Degrees of Marbling		A	B	C	D	E	Degrees of Marbling	
Slightly Abundant	Prime						Slightly Abundant	
Moderate			Commercial				Moderate	
Modest	Choice						Modest	
Small							Small	
Slight	Select			Utility			Slight	
Traces					Cutter		Traces	
Practically Devoid	Standard						Practically Devoid	

* Assumes that firmness of lean is comparably developed with the degree of marbling and that the carcass is not a "dark cutter."

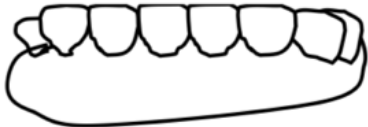
** Maturity increases from left to right (A through E)

*** The A maturity portion of the Figure is the only portion applicable to bullock carcasses.

Dentition for Carcass Maturity

The dentition depicted represents cattle less than 30 months of age.

Full set of 8 temporary teeth, at about 15 months of age



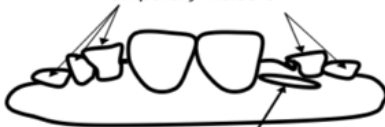
Erupting first set of permanent incisor.



Erupted first set of permanent incisor.



Temporary incisors



Erupting third permanent incisor, top of tooth **NOT** above gum line, animal less than 30 months of age.

The dentition depicted represents cattle 30 months of age or older

First set permanent incisors



Erupted third permanent incisor, top of tooth above gum line, animal 30 months of age.

Erupting fourth permanent incisor.

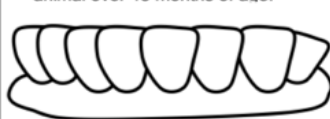


Erupted third permanent incisor (with top corners of the tooth above the gum line), animal 30 months of age or older.



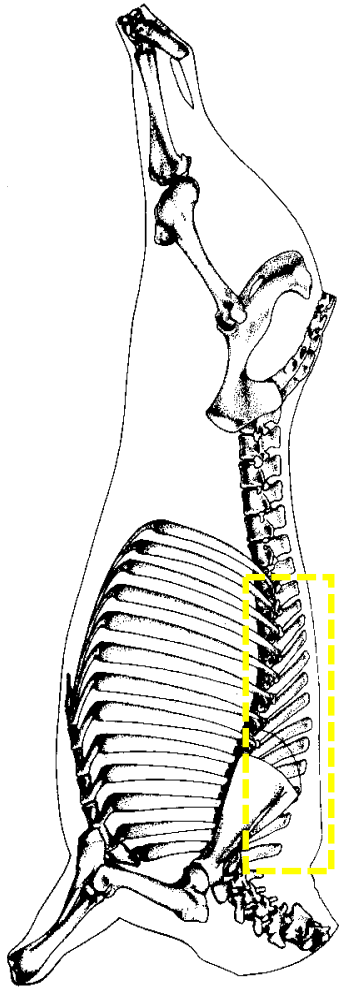
Four permanent incisor, (with top corners of the second set above the gum line), animal 30 months of age or older.

Full set of permanent incisors, animal over 48 months of age.

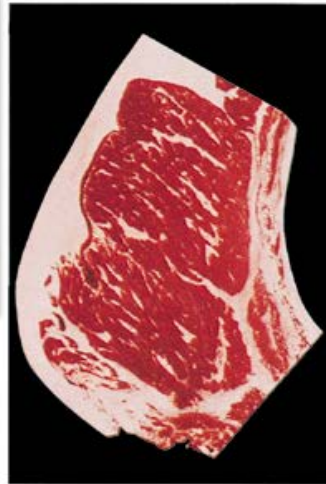


Effective December 17, 2017

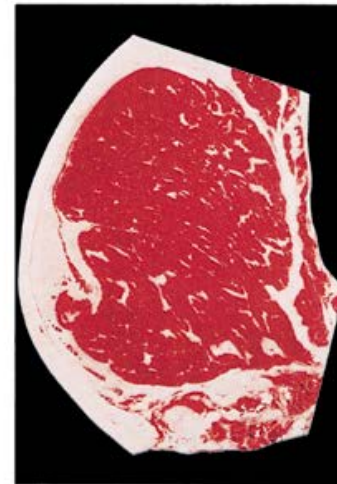
Carcass Maturity - *Grader looks Primarily at Skeletal Maturity*



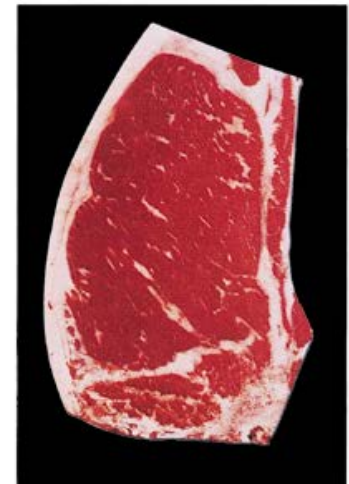
Marbling at the 12th/13th Rib



Moderately Abundant



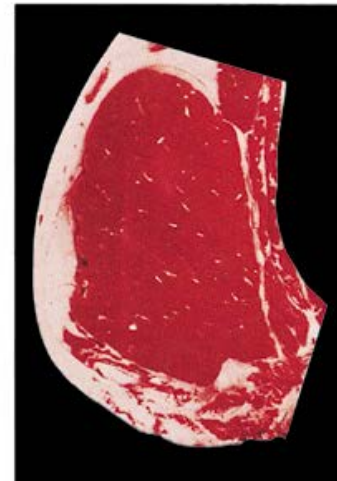
Slightly Abundant



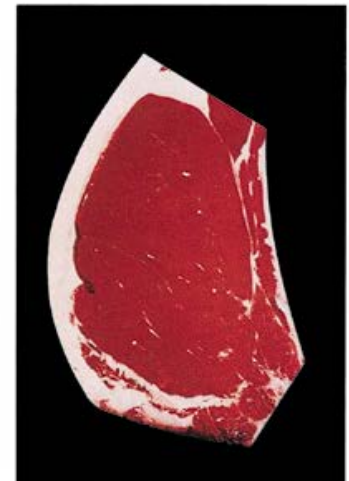
Moderate



Modest

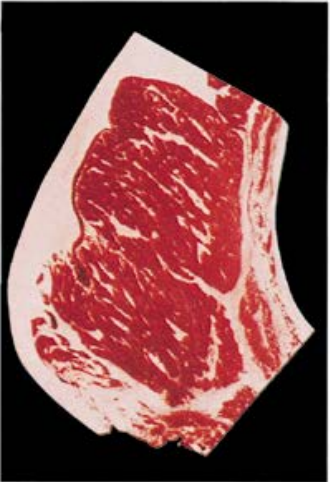


Small



Slight

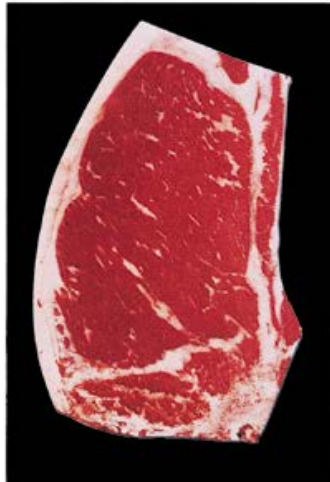
Quality Grade?



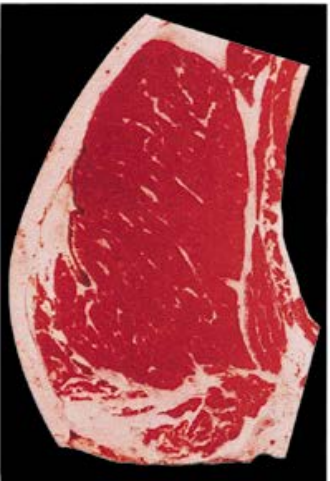
Moderately Abundant



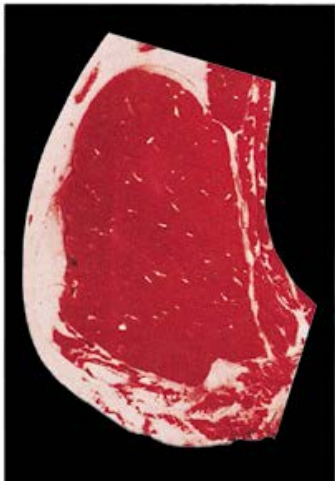
Slightly Abundant



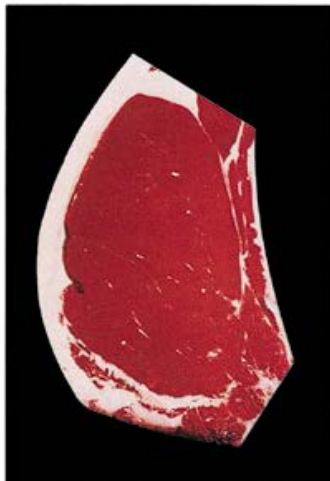
Moderate



Modest



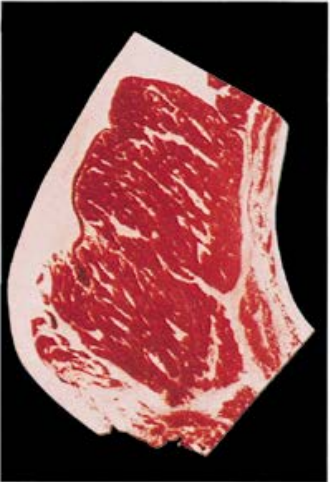
Small



Slight



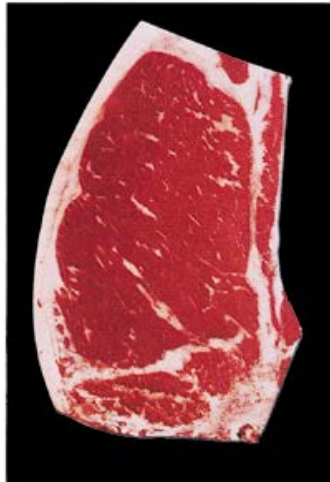
Quality Grade?



Moderately Abundant



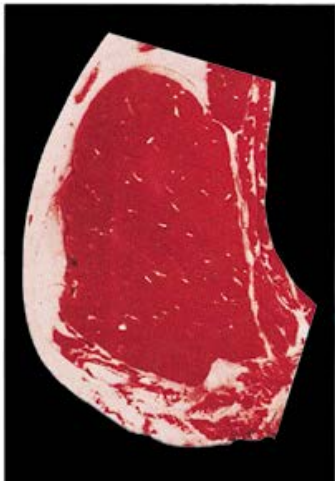
Slightly Abundant



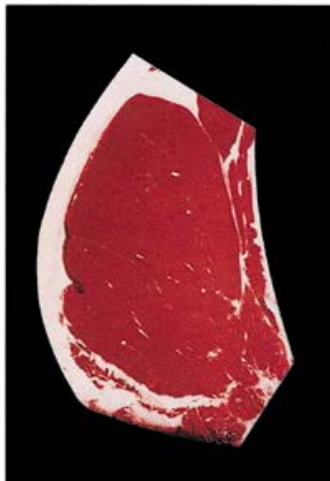
Moderate



Modest



Small



Slight



Quality Grade and Taste

Prime

5.6

Choice

10.8

Select

26.4

Standard

59.1



8

7

6

5

4

3

2

1

Upper 2/3's Choice

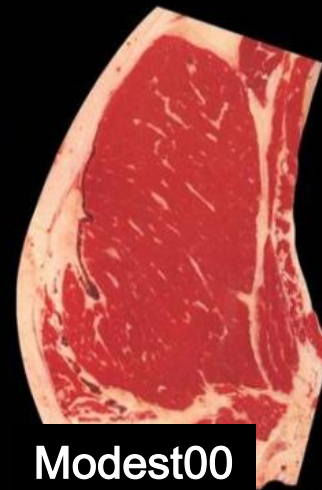
Top Choice

Premium Choice

These are NOT official USDA grades but are often referred to by premium and/or certified programs



Small00



Modest00



Moderate00

Degrees of Marbling	A	B
Slightly Abundant	Prime	
Moderate		
Modest	Choice	
Small		
Slight	Select	
Traces		
Practically Devoid	Standard	

Yield Grade = Lean Meat Yield





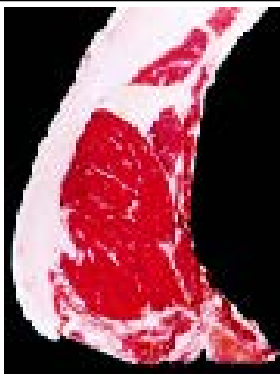
Yield Grade



Yield Grade 1



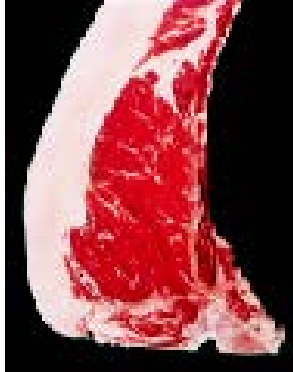
Yield Grade 2



Yield Grade 3



Yield Grade 4



Yield Grade 5

Yield Grade 1



Yield Grade 2



Yield Grade 3



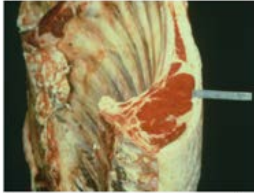
Yield Grade 4



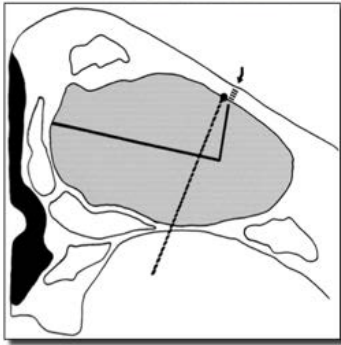
Yield Grade 5



Starting Point - PYG



Fat opposite ribeye, inch	PYG
.0	2.0
.1	2.25
.2	2.50
.3	2.75
.4	3.00
.5	3.25
.6	3.50
.7	3.75
.8	4.00
1.0	4.50

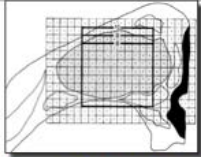


Adjustment 1 Carcass Weight

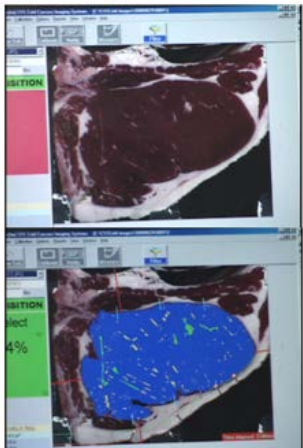
Carcass Weight, pounds	PYG Adjustment
500	-.40
550	-.20
600	No adjustment
650	+.20
700	+.40
750	+.60
800	+.80
850	+1.0
900	+1.2



Adjustment 2 Ribeye Area

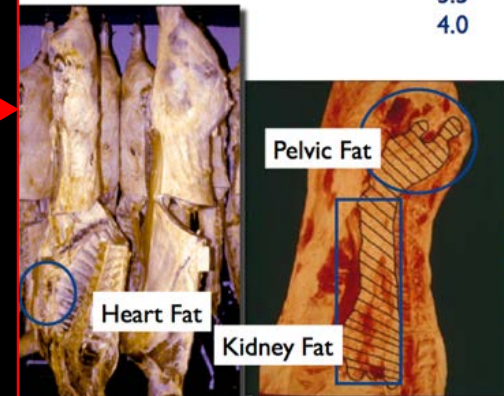


Ribeye area, sq. in.	PYG Adjustment
9.5	+.49
10.0	+.33
10.5	+.16
11.0	No adjustment
11.5	-.16
12.0	-.33
12.5	-.49
13.0	-.66
13.5	-.82
14.0	-1.0
14.5	-1.16
15.0	-1.33



Adjustment 3 Kidney Pelvic and Heart Fat

%KPH	Adjustment to PYG
1.5	-.40
2.0	-.30
2.5	-.20
3.0	-.10
3.5	No adjustment
4.0	+.10



Types of Certified Beef and Process Verified Programs

Breed Specific

Breed Specific + Quality

Non-Breed Specific + Quality

Brand Name Specification

Process Verified



As of 9/24/19, there were **53** Certified Beef Programs with **89** Branded Products

Certified Programs Making Live Breed Claims

- **Schedule AAA – Live Animal Specification for Cattle Claiming Angus Influence (n = 70)**
- **Schedule AHA – Live Animal Specification for Cattle Claiming Hereford Influence (n = 4)**
- **GLTL – Live Animal Specification for Cattle Claiming Texas Longhorn Influence (n = 1)**
- **Schedule GLW – Live Animal Specification for Cattle Claiming Wagyu Influence (n = 2)**
- **Schedule GLAk – Live Animal Specification for Cattle Claiming Akaushi Influence (n = 2)**

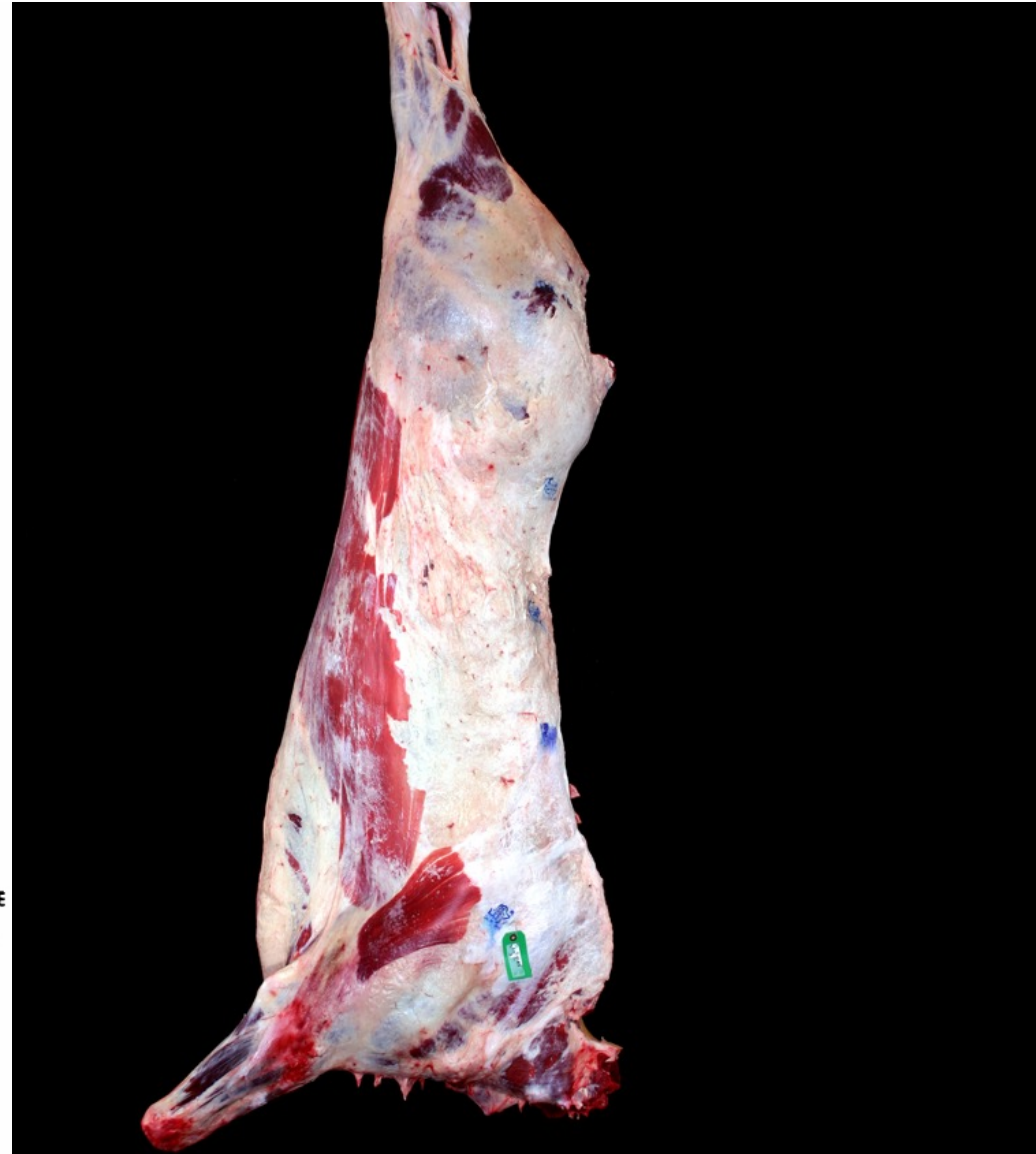
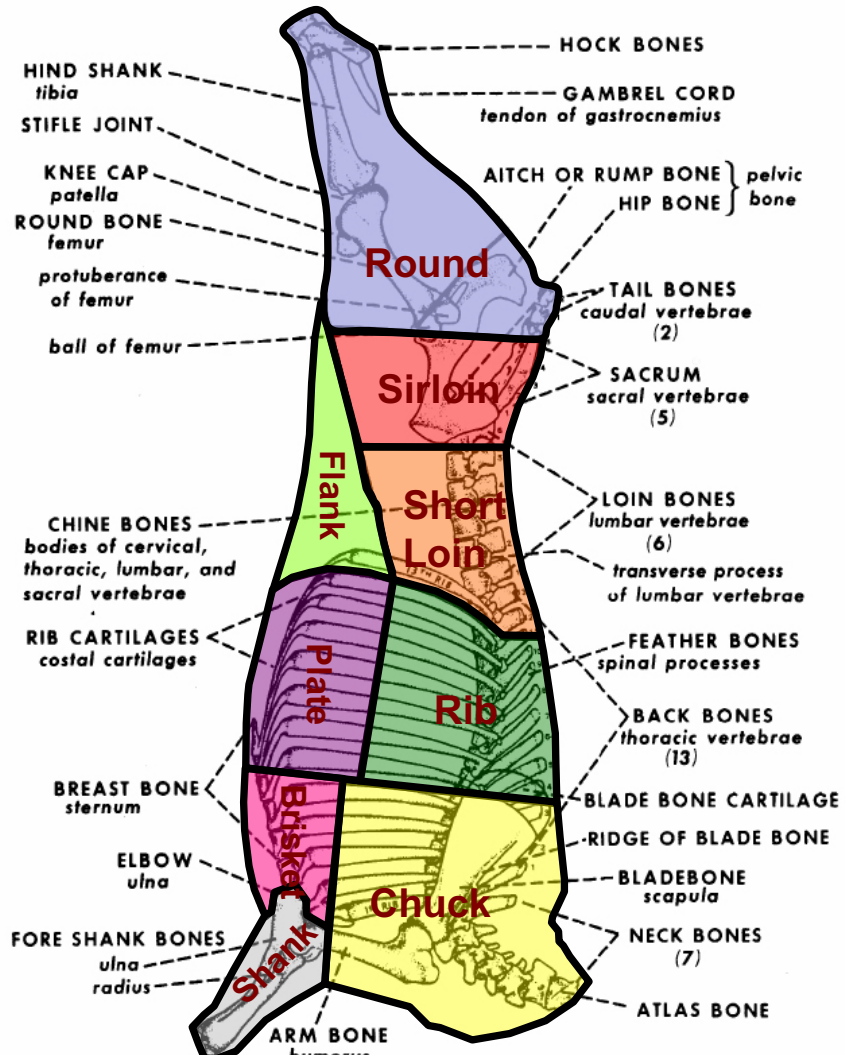
USDA Certified Beef Programs

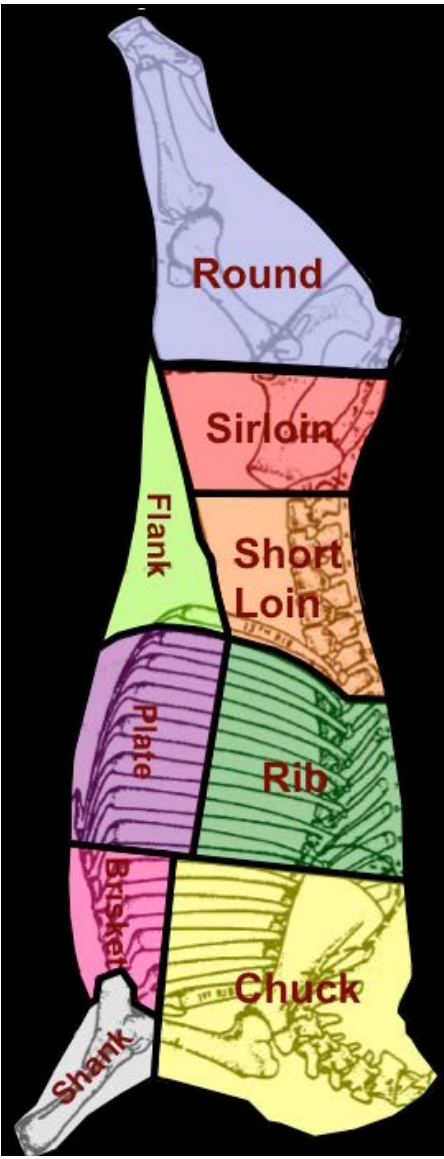
www.ams.usda.gov

Company	CAB	CHB	CHB			Cargill Meat
Program/Brand Name	Certified Angus Beef	Certified Hereford Beef	Certified Hereford Beef Premium	Certified Texas Longhorn	Certified Wagyu Beef	Sterling Silver
Schedule number	G-1	G-10	G-10A	G-102	G-75	G-2
Live Animal Requirement						
Phenotype	AAA	AHA	AHA			
Genotype	AAA ^v			GLTL	GLW	
Other					< 30 mon. of age	
Carcass Characteristics						
U.S. Prime	X	X	X		X	X
U.S. Choice	X	X	X			X
U.S. Select		X				
U.S. Standard						
U.S. Utility and Commercial						
Maturity	A	A	A		A	A or B
Marbling score requirement	MT ⁰⁰ or higher	SL ⁰⁰ or higher	MT ⁰⁰ or higher		SLA ⁰⁰ or higher	MT ⁰⁰ or higher
Medium or fine marbling texture	X	X	X			X
Yield grade						
Ribeye area (square inches)	10.0 - 16.0	10.0 - 16.0	10.0 - 16.0			
Hot carcass weight (pounds)	< 1050*	< 1050*	< 1050*			
Fat thickness (inches)	< 1.0	<1.0	<1.0			
Minimum muscling requirement	X	X	X			X
Carcass class (type) ^y	S & H	S & H	S & H	S, H, C	S & H	S & H
Capillary rupture in ribeye muscle ^z	PF	PF	PF	PF	N	PF
Free of dark cutting characteristics	X	X	X	X	X	X
Max hump height (≤ 2 inches)	X	X	X	X	X	X
USDA Information						
Initial release date	1978	Jan-96	Aug-16	Jul-10	Jul-08 Jul-08	Jul-98

BEEF SKELETAL CHART

Location, Structure and Names of Bones





Arm Roast

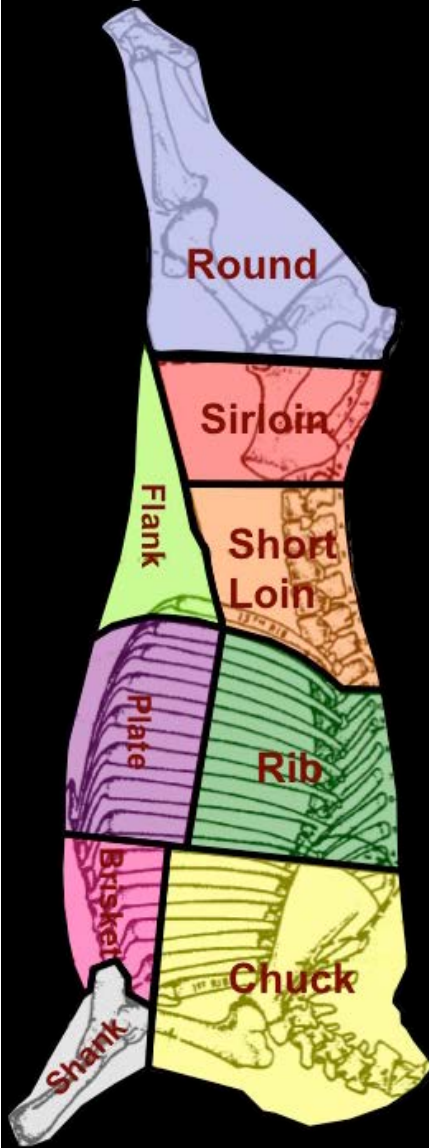


Blade Roast



7-Bone Roast

Chuck – Shoulder Clod



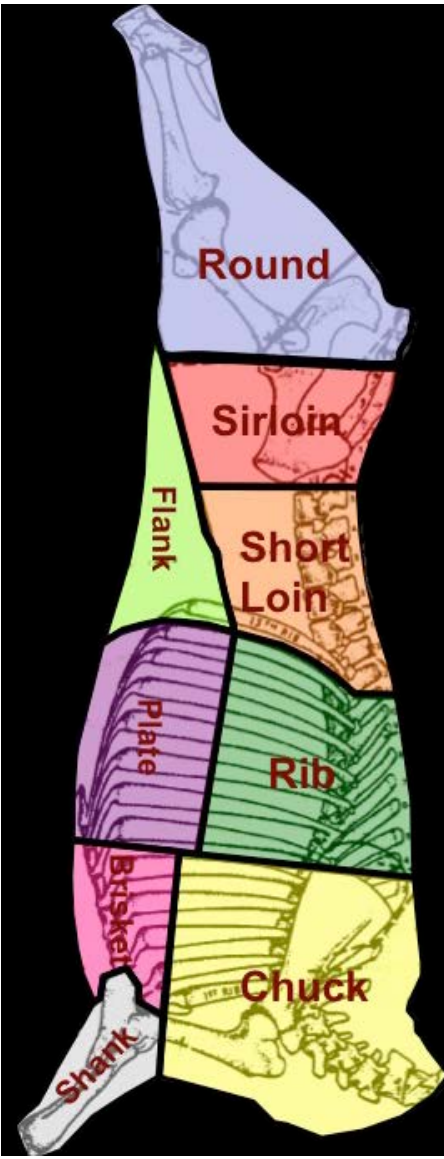
Shoulder
Roast/Steak
Ranch Steak



Flat Iron Steak

Petite
Shoulder
Tender

Top Blade Steak



Chuck – Chuck Roll

Chuck
Eye Roll

Chuck
Flat

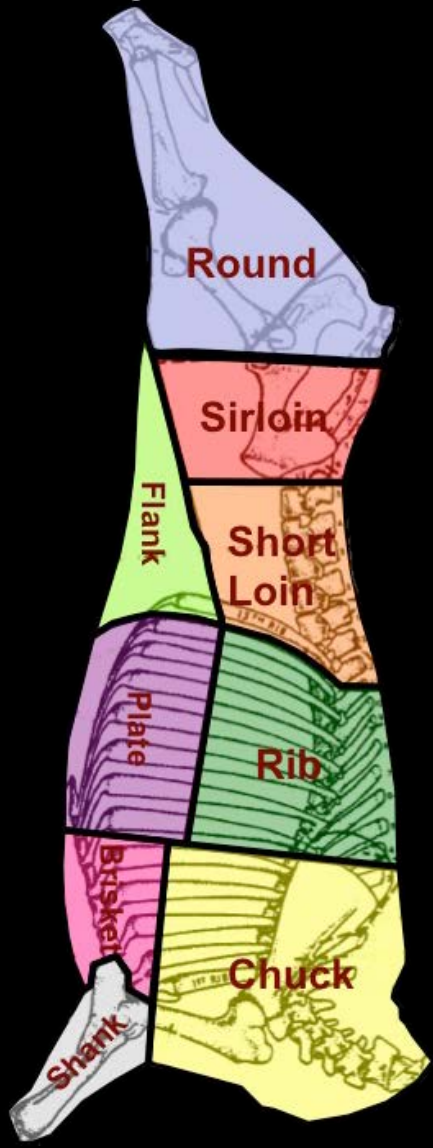
Chuck Eye
Steak
“Delmonico”

Chuck Eye
Roast

Denver
Steak

Sierra
Cut





Rib



Rib Roast



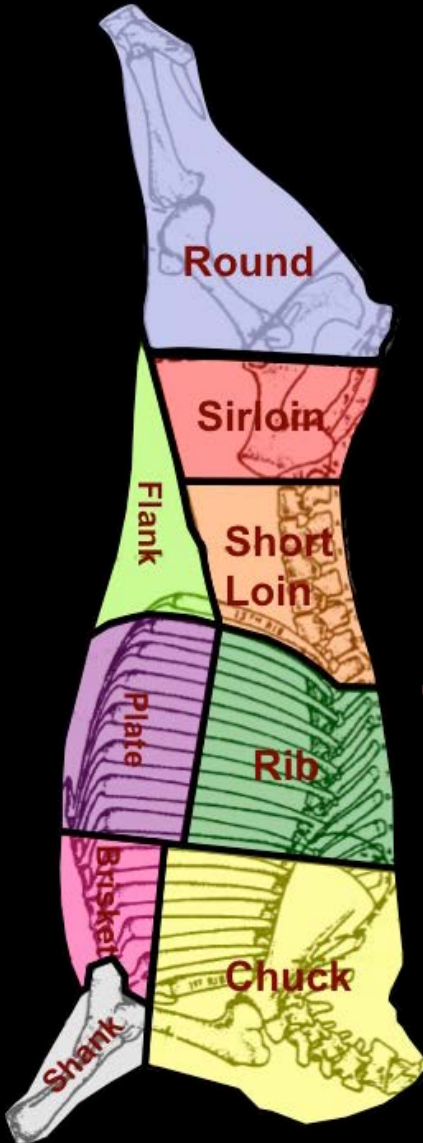
Rib Steak



Tomahawk Steak



Ribeye



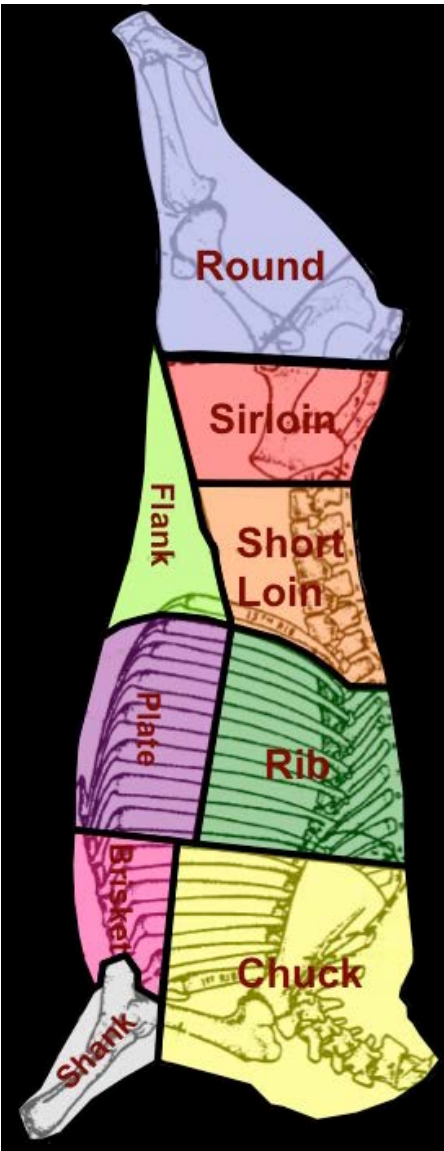
Ribeye Steak



Ribeye Cap Steak

Ribeye Filet

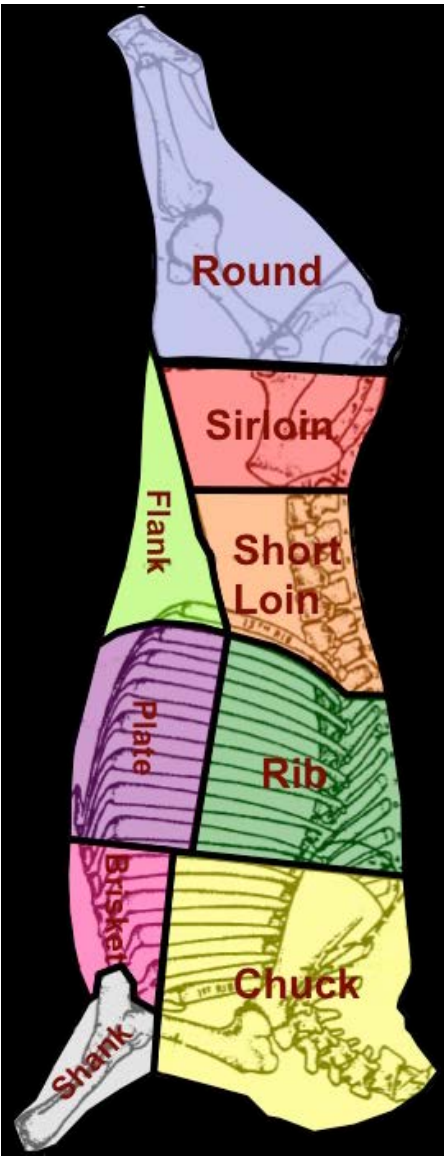




Short Loin



T-Bone
Porterhouse
Strip
Steaks



Strip Loin/Tenderloin



Strip (Top Loin) Steak



Tenderloin Steak

Top Sirloin



Sirloin Steak

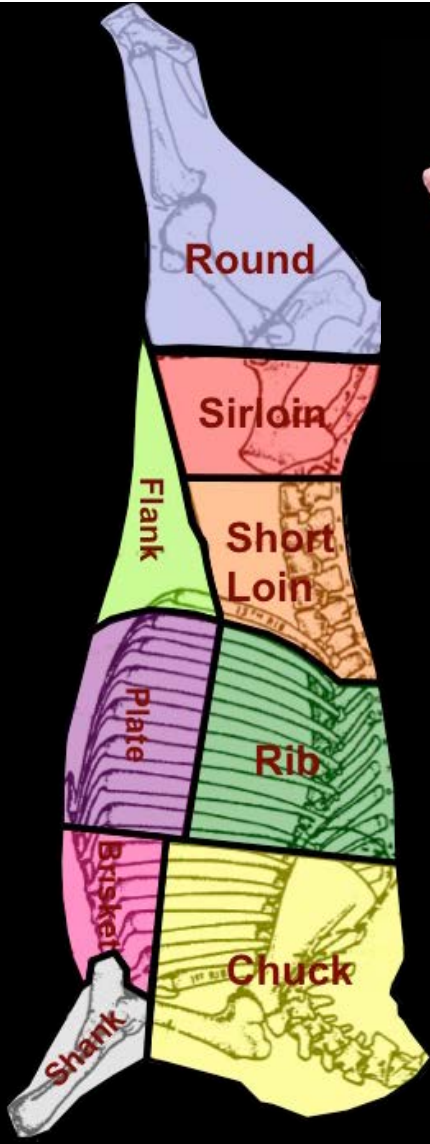


Top Sirloin Steak



Center-Cut Sirloin Steak

Sirloin Cap Steak



Bottom Sirloin

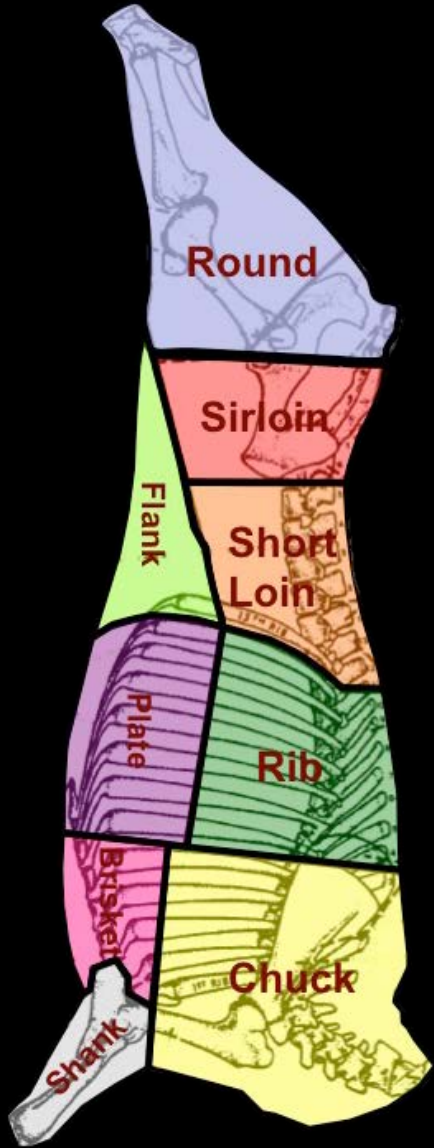
Ball Tip

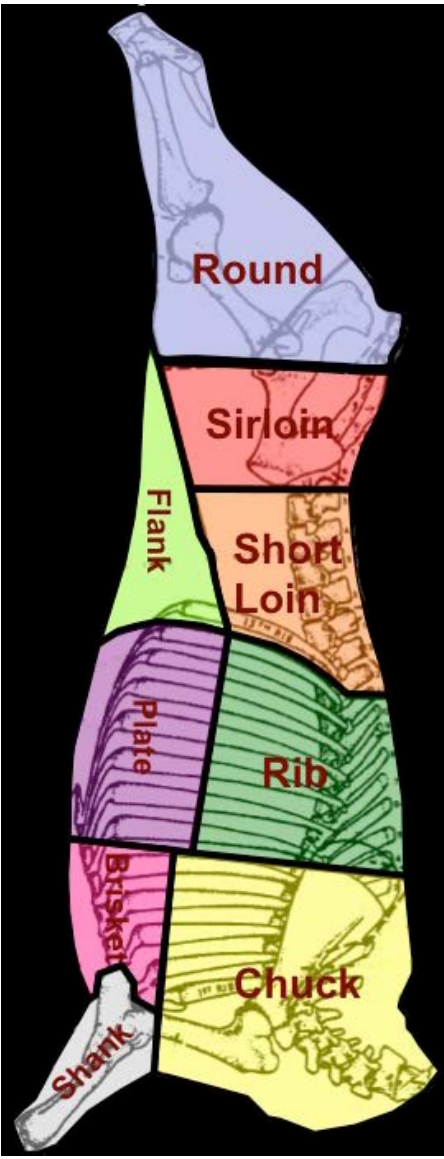


Tri-Tip



Flap (Bavette)





Round



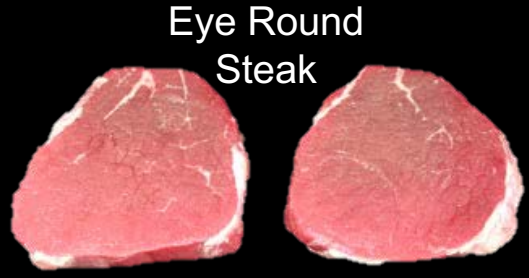
Round
Steak



Sirloin Tip
Steak



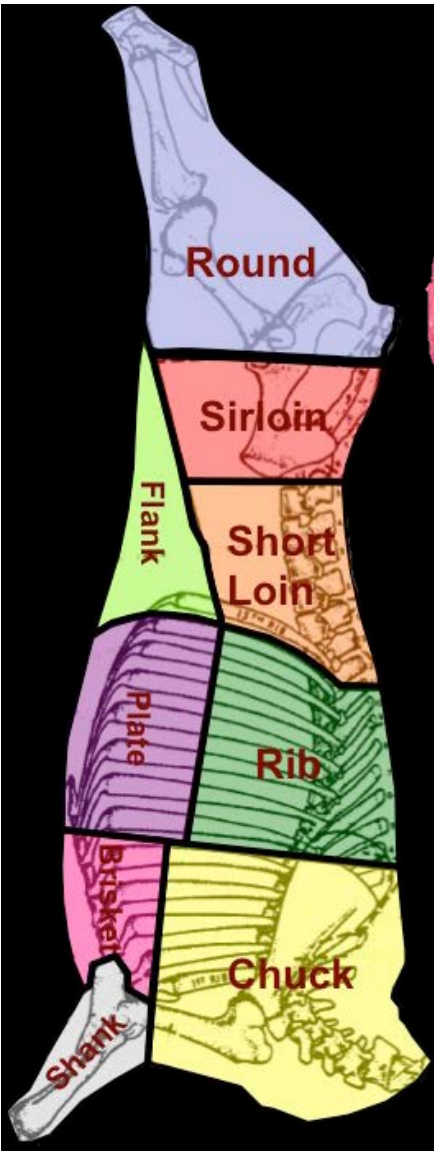
Top Round
Steak



Eye Round
Steak



Bottom
Round
Steak



Top (Inside) Round



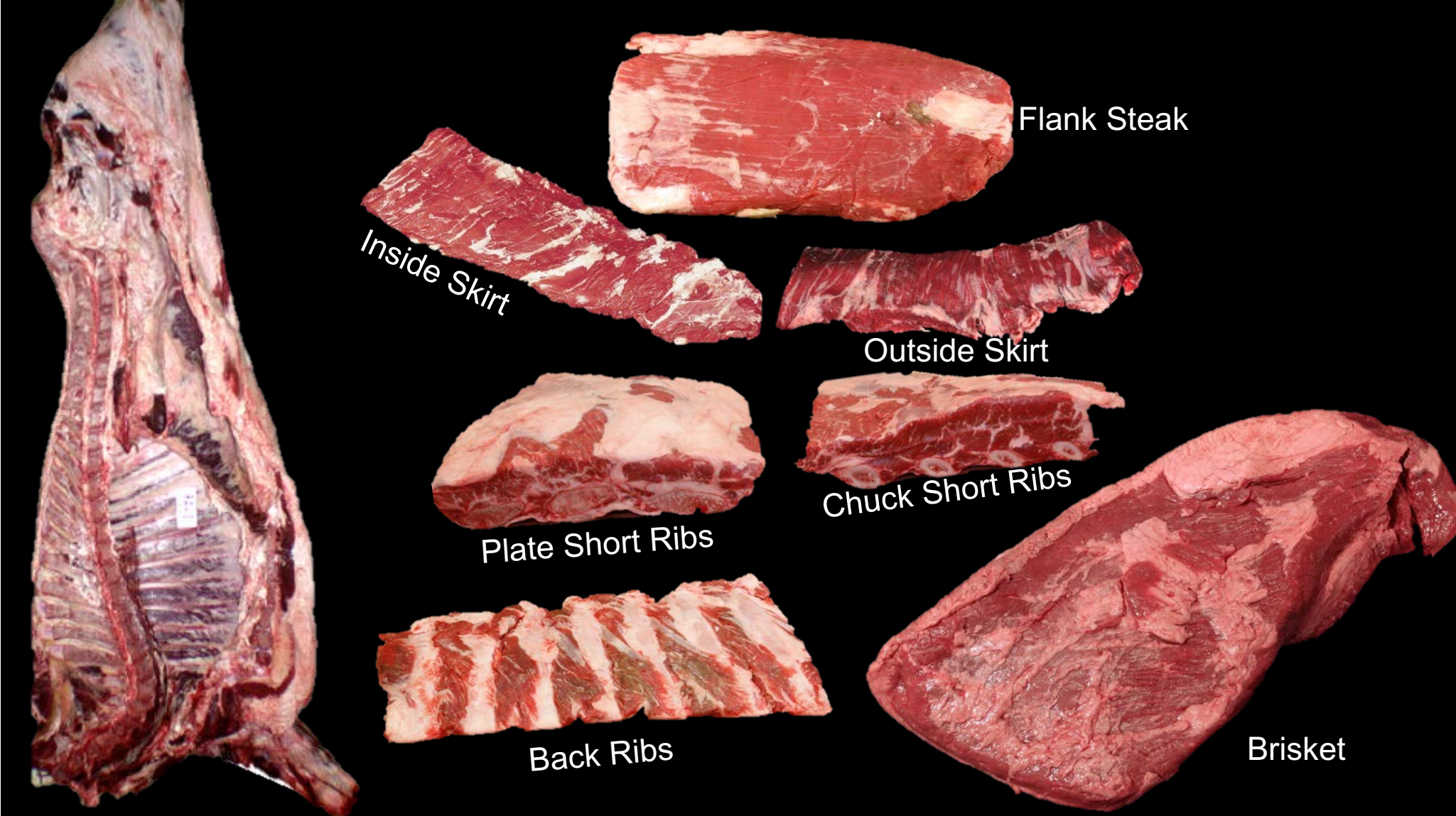
Bottom Round Flat



"Knuckle" or Round Tip



Eye of Round



Flank Steak

Inside Skirt

Outside Skirt

Chuck Short Ribs

Plate Short Ribs

Back Ribs

Brisket

NAMI
NORTH AMERICAN
MEAT INSTITUTE

8th Edition
Edition 8

THE MEAT BUYER'S GUIDE®

Commonly referred to as the NAMP Meat Buyer's Guide
Guía para Compradores de Carne®

The definitive reference for the meat & poultry industry
and culinary professionals since 1961

With additional information provided by



Representative of the USDA Institutional Meat Purchase Specifications (IMPS), as well as the CITA Wholesale Meat Specifications Document (RMSQ) / Document de l'ACIA relatif aux spécifications de la viande vendue en gros. French and Spanish versions are available online at www.meatbuyersguide.com.

BEEF
BOVINO



BEEF

LAMB
CORDERO



LAMB

VEAL
TERNERA



Purchaser
Information

PORK
CERDO



PORK

POULTRY
AVES



Further-Processed

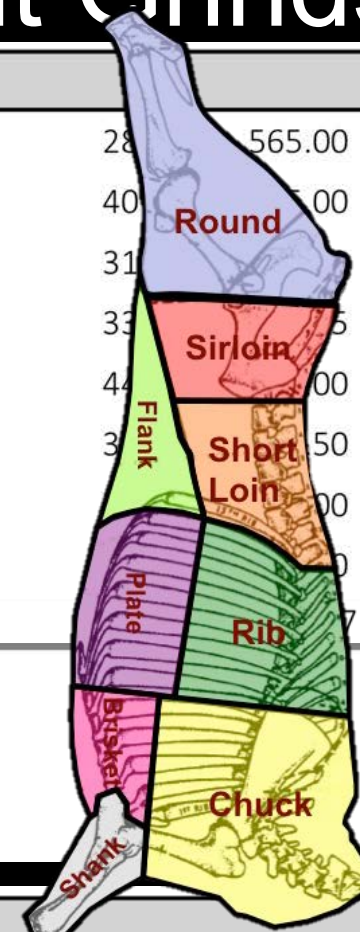
Subprimal	% of Carcass		Subprimal	% of Carcass
Lean Trim (All 80%)	19.06	55.3%	123A Plate Short Ribs	1.10
Trimnable Bone	18.87		130 Chuck Short Ribs	1.05
Trimnable Fat	17.37		124 Back Ribs	1.03
168 Top (Inside) Round	5.22		185A Bottom Sirloin Flap	0.98
116A Chuck Roll	4.20		109B Rib, Blade Meat	0.91
120 Brisket boneless	3.46		116B Chuck Tender (mock)	0.81
171B Outside Round	3.44		115D Chuck Pectoral Meat	0.74
167A Knuckle (peeled)	3.10		185D Bottom Sirloin Tri-Tip	0.69
112A Ribeye, Lip-On	3.01	10.2%	139 Special Trim	0.62
180A Strip Loin	2.98		121D Inside Skirt	0.60
184 Top Sirloin Butt	2.48		193 Flank Steak	0.45
114E Shoulder Arm Roast	1.96		121C Outside Skirt	0.36
189B Tenderloin	1.72		Kidney	0.26
171C Eye of Round	1.50		114F Shoulder Tender	0.19
114D Shoulder Top Blade	1.22		185B Bottom Sirloin Ball Tip	0.14



Fed Steer/Heifer Plant Grinds

GB - Steer/Heifer Source - 10 Pound Chub Basis- Coarse & Fine Grind

Ground Beef 73%	145	1,227,138	28	565.00	395.13
Ground Beef 75%	8	10,862	40	5.00	462.79
Ground Beef 81%	304	1,681,614	31	5.00	425.73
Ground Beef 85%	16	248,524	33	5.00	350.26
Ground Beef 90%	29	45,107	44	5.00	543.21
Ground Beef 93%	47	184,434	3	5.00	439.02
Ground Beef Chuck	123	880,600		5.00	444.96
Ground Beef Round	51	103,887		5.00	461.39
Ground Beef Sirloin	12	12,591		5.00	454.05



Source: USDA Livestock, Poultry and Grain Market News
 Des Moines, IA | 515-284-4460 | desm.lpgmn@ams.usda.gov
[XML Format | mpr.datamart.ams.usda.gov](https://www.ams.usda.gov/mpr.datamart.ams.usda.gov) | [LMR Web Service Guide](#)
www.ams.usda.gov/LPSMarketNewsPage

Beef Trimmings - Steer/Heifer Source - Fresh Combos & Frozen Boxed

Fresh 50% lean trimmings	110	3,045,981	71.00 - 170.52	103.16
Frozen 50% lean trimmings	0	0	0.00 - 0.00	0.00



Ground Beef













- ❖ **Ground Beef** – chopped fresh and/or frozen beef from primal cuts and trimmings.
 - ❖ Maximum fat content in any ground beef is 30% (70% lean) by law.
 - ❖ May contain seasonings, but no water, phosphates, binders, or other meat sources may be added and still be labeled as ground beef.
 - ❖ If a ground beef label has an added label identifier such as ground round, sirloin or chuck, the lean and fat used in the product can come from only the primal included in the name.
- ❖ **Hamburger** – shall consist of chopped fresh and/or frozen beef with or without the addition of beef fat as such and shall not contain more than 30 percent fat, and shall not contain added water, phosphates, binders, or extenders.
- ❖ **Beef Patties** – shall consist of chopped fresh and/or frozen beef with or without the addition of beef fat and/or seasonings. Binders or extenders, Mechanically Separated Beef used in accordance with § 319.6, and/or partially defatted beef fatty tissue may be used without added water or with added water only in amounts such that the product characteristics are essentially that of a meat pattie.



Chart Courtesy of North American Meat

BEEF CUT CHART

BONELESS TRIMMINGS

		
Boneless Chuck Trimmings	Boneless Rib Trimmings	Boneless Round Trimmings
		
Boneless Shank Trimmings	Boneless Sirloin Trimmings	Caul Fat
		
Boneless Trimmings 50 percent Lean	Boneless Trimmings 60 percent Lean	Boneless Trimmings 65 percent Lean
		
Boneless Trimmings 85 percent Lean	Boneless Trimmings 90 percent Lean	Boneless Trimmings 95 percent Lean



Boneless Trimmings
90 percent Lean



Boneless Trimmings
50 percent Lean



Coarse
Grinder

75%

Mixer

25%

Coarse
Grinder

Fine
Grinder



80% Lean/20% Fat
Ground Beef





