

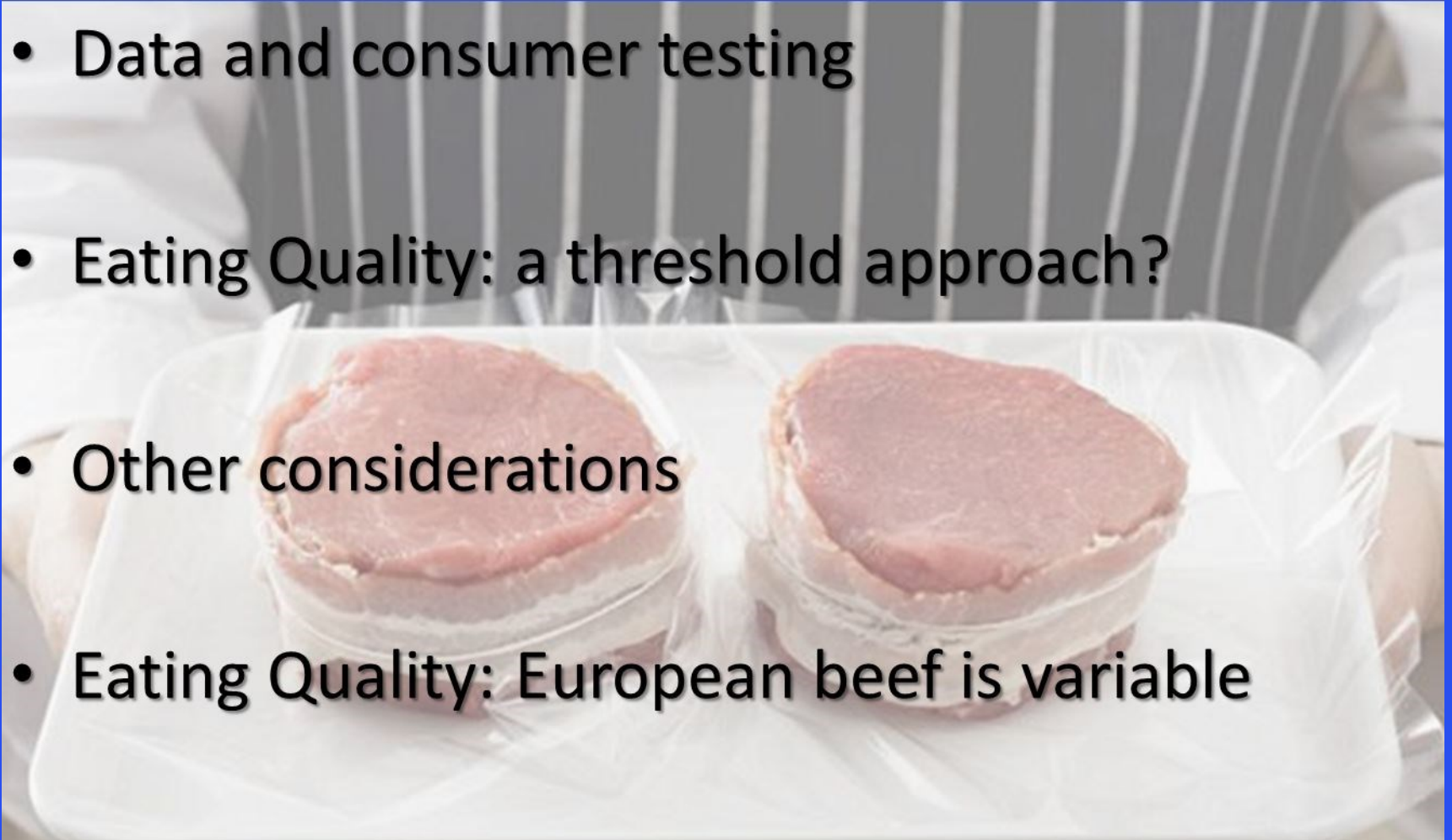
Beef eating quality in Europe



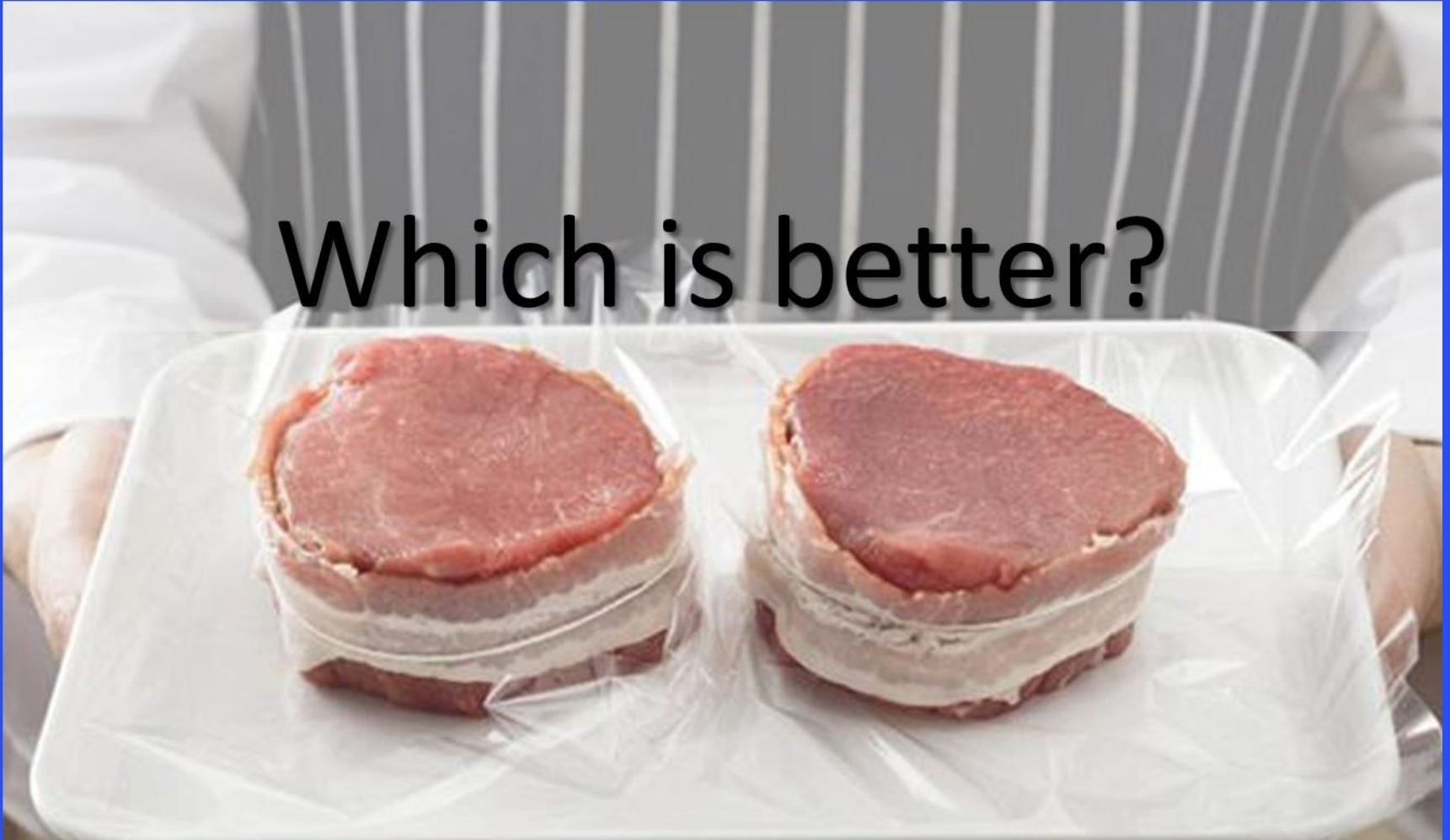
Sarah Bonny

Outline

- Data and consumer testing
- Eating Quality: a threshold approach?
- Other considerations
- Eating Quality: European beef is variable

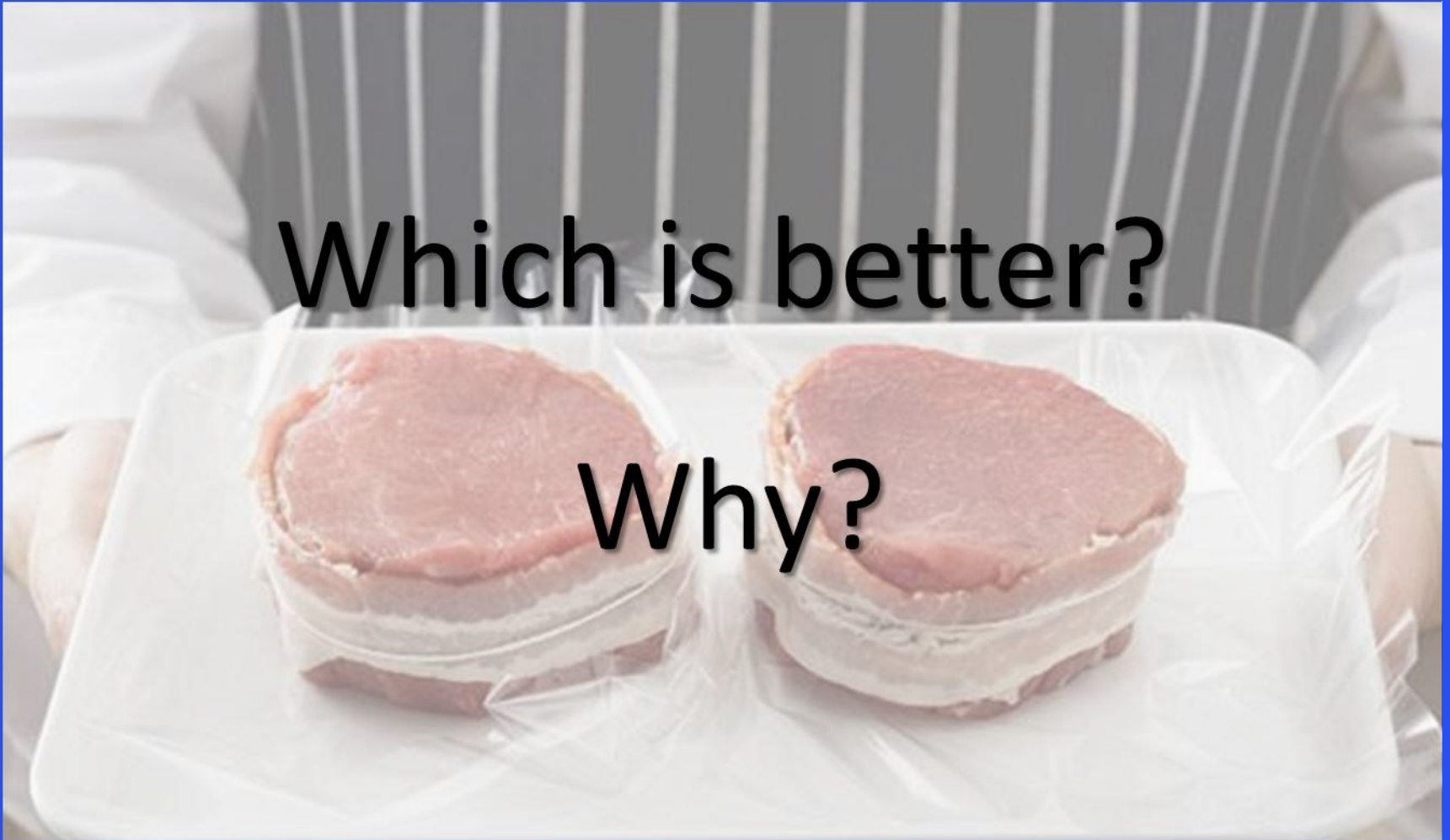


Which is better?



Which is better?

Why?



Collaborative partners

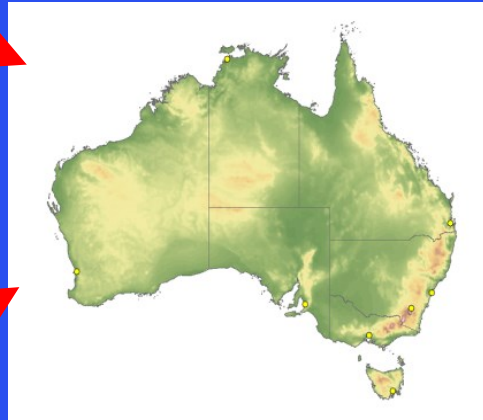
Poland



France



Australia

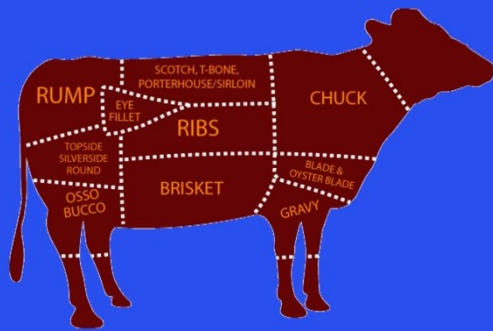


Nth Ireland



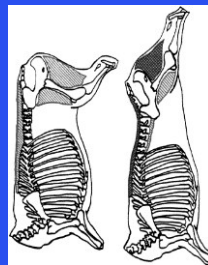
Ireland

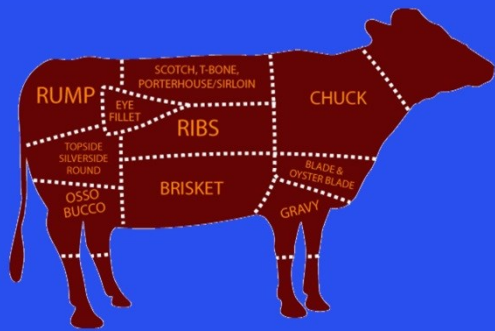




774 carcasses

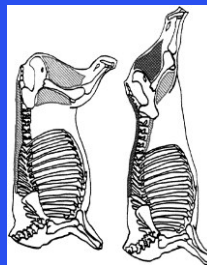
- 5 countries
- Marbling: 100 -> 820
- Carcass wt: 168 kg -> 531 kg
- Beef, Dairy and Crosses
- Achilles or Tender stretch
- 4 cooking methods



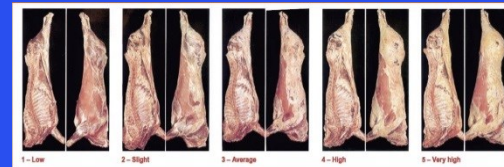


774 carcasses

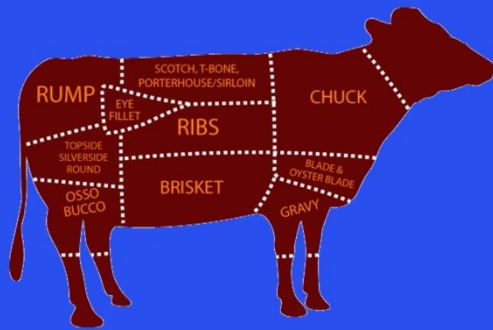
- 5 countries
- Marbling: 100 -> 820
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- 4 cooking methods



- Age: 7 months -> 17 years
- Bulls, Females, Steers
- Ultimate pH: 5.6 -> 7.2
- Aged from 5-35 days
- Conformation E -> P
- Fat 1 -> 5



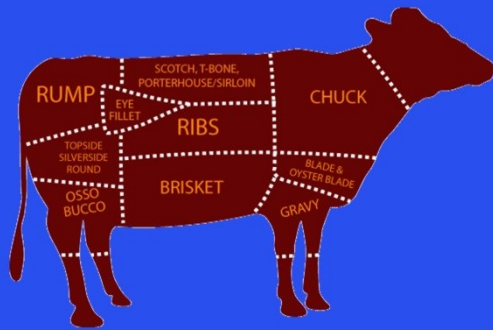
Taste Panels



774 Carcasses

Taste Panels

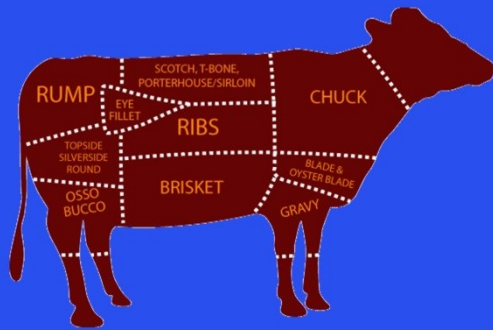
18 Muscles



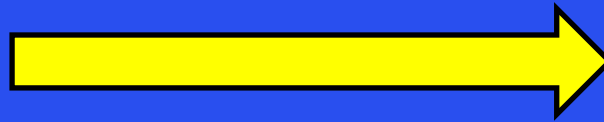
774 Carcasses

Taste Panels

18 Muscles



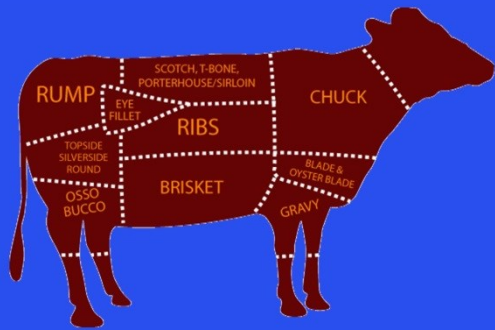
X 10 samples



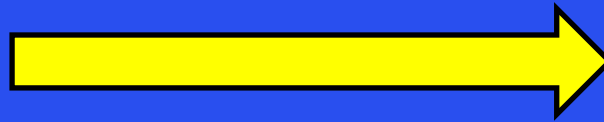
774 Carcasses

Taste Panels

18 Muscles



X 10 samples

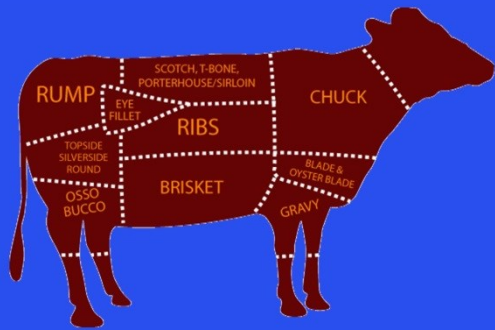


774 Carcasses

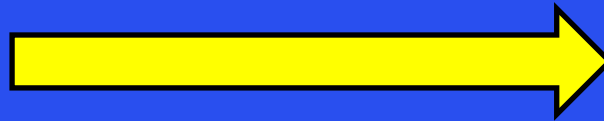
15,614 Consumers

Taste Panels

18 Muscles



X 10 samples



Untrained

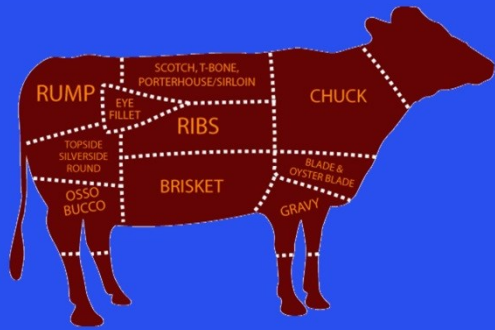


774 Carcasses

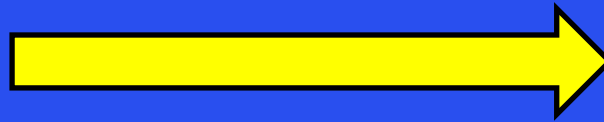
15,614 Consumers

Taste Panels

18 Muscles



X 10 samples



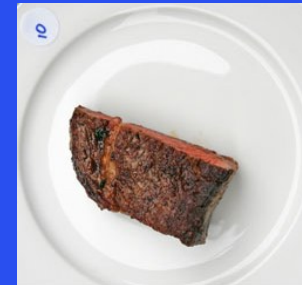
Untrained



774 Carcasses





15,614 Consumers

X 6 Samples



Taste Panels

- Scored for

– Tenderness	0		100
– Juiciness	0		100
– Flavour	0		100
– Overall Liking	0		100

- Scores then weighted and combined into a single MQ4 value

Tenderness	x	0.3
+		
Juiciness	x	0.1
+		
Flavour	x	0.3
+		
Overall Liking	x	0.3

MQ4 score



The Meat Standards Australia System

Consumers also class meat as:



Unsatisfactory

Good
Everyday

Better than
Everyday

Premium

MQ4



0



100

The Meat Standards Australia System

Consumers also class meat as:



Unsatisfactory

Good
Everyday

Better than
Everyday

Premium

MQ4 →

0

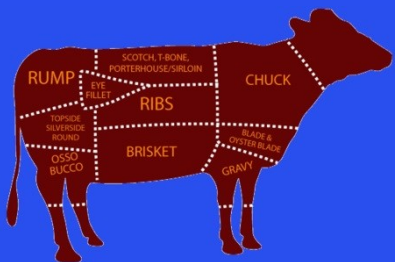
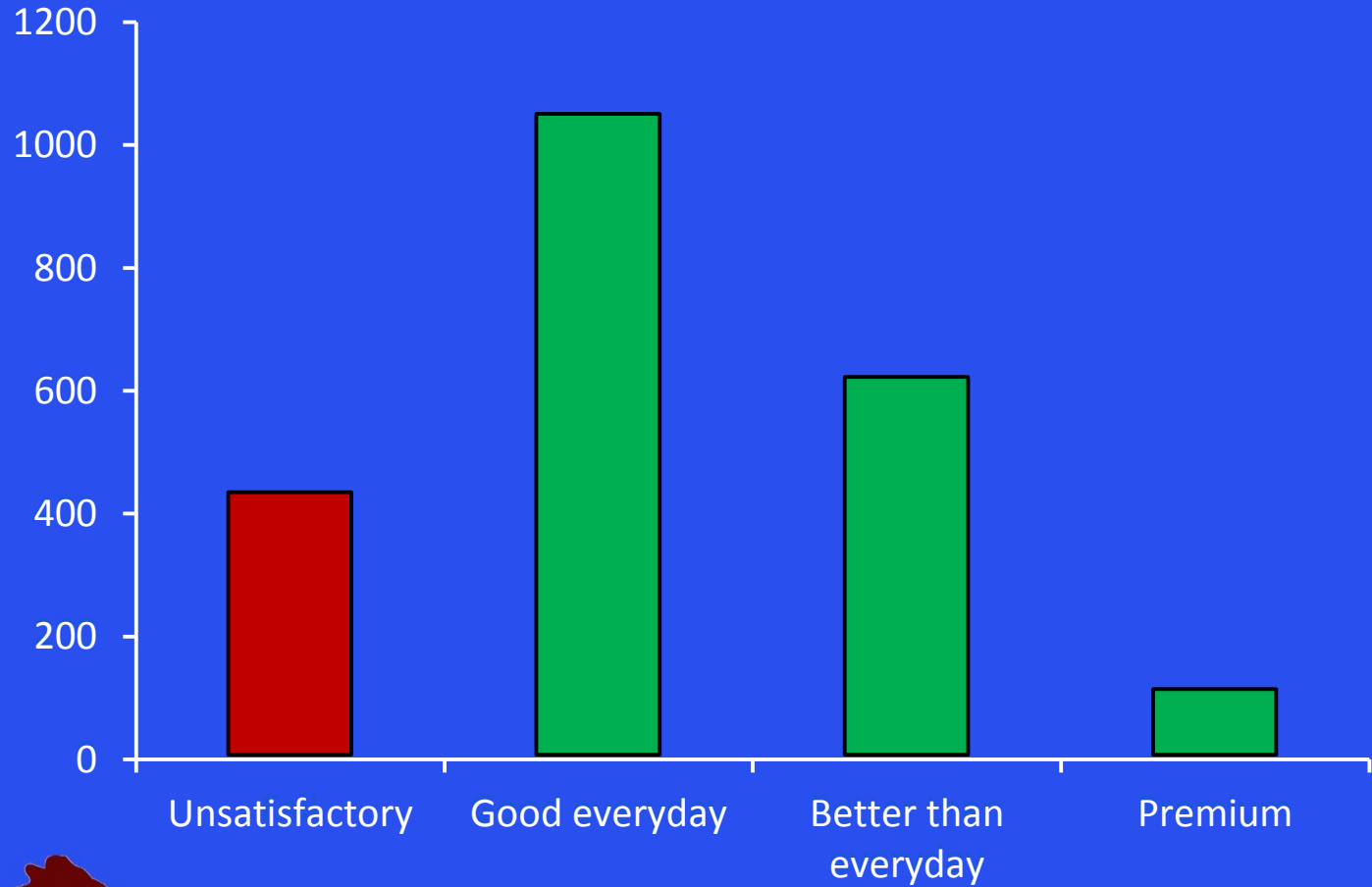
46

64

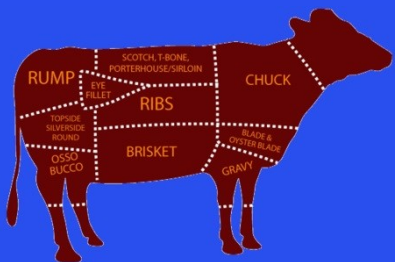
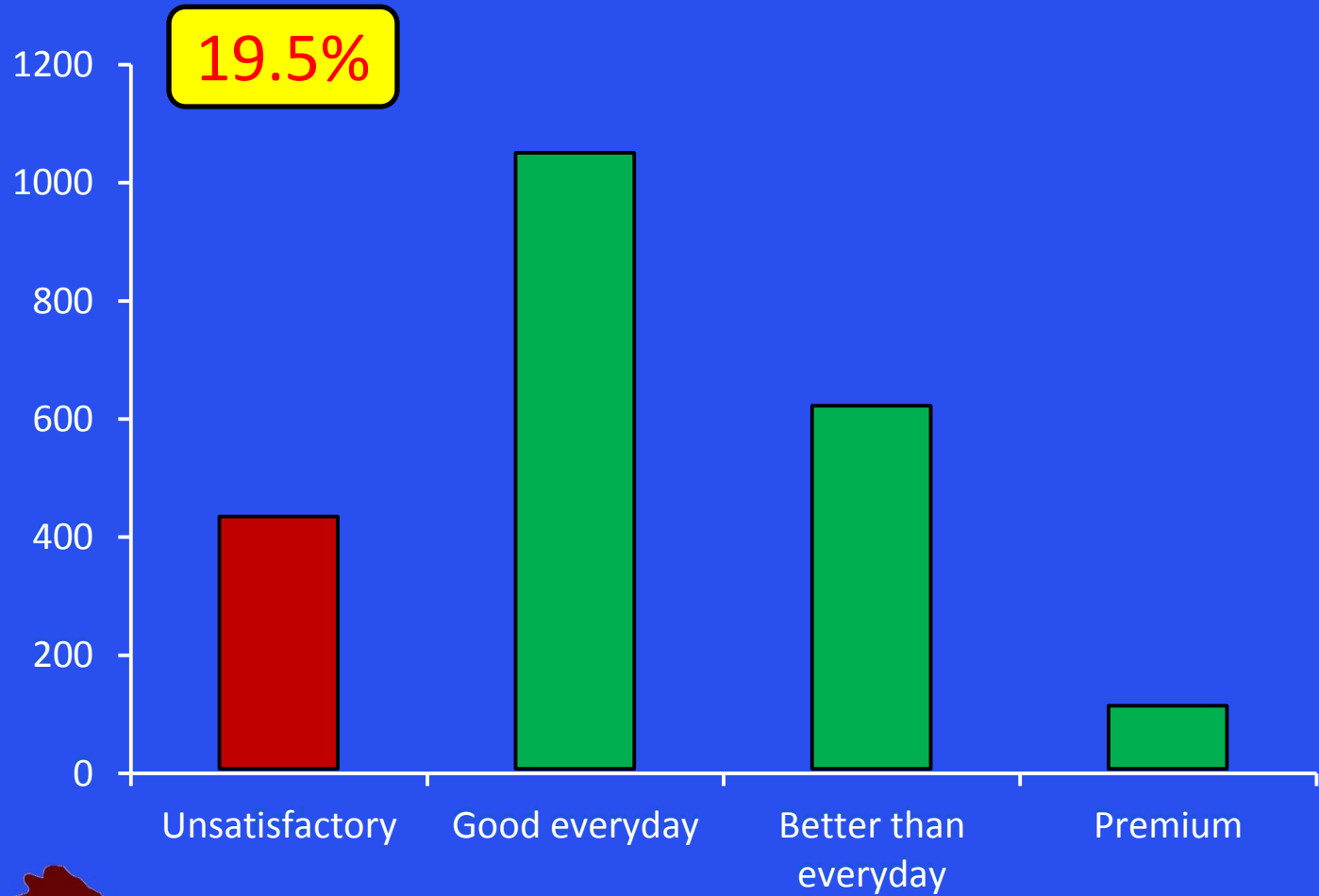
76

100

Consumer scores: Grilled Striploin

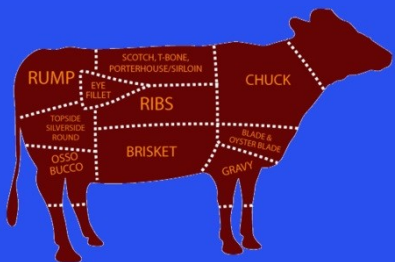
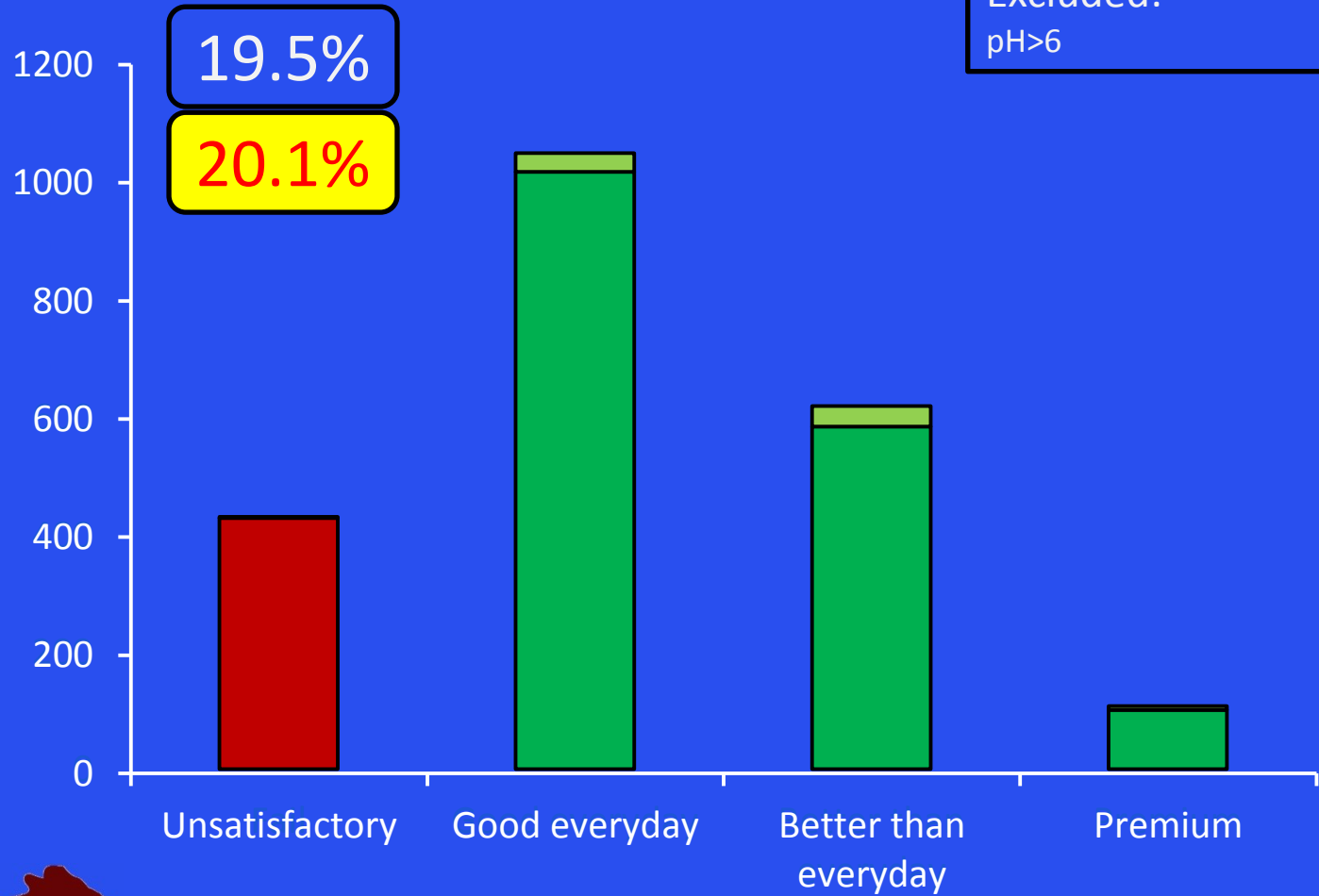


Consumer scores: Grilled Striploin



Consumer scores: Grilled Striploin

Excluded:
pH>6



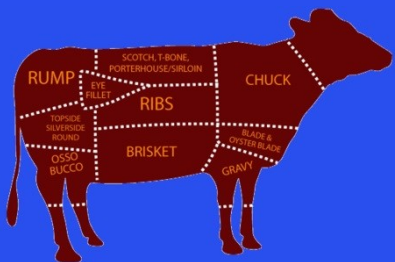
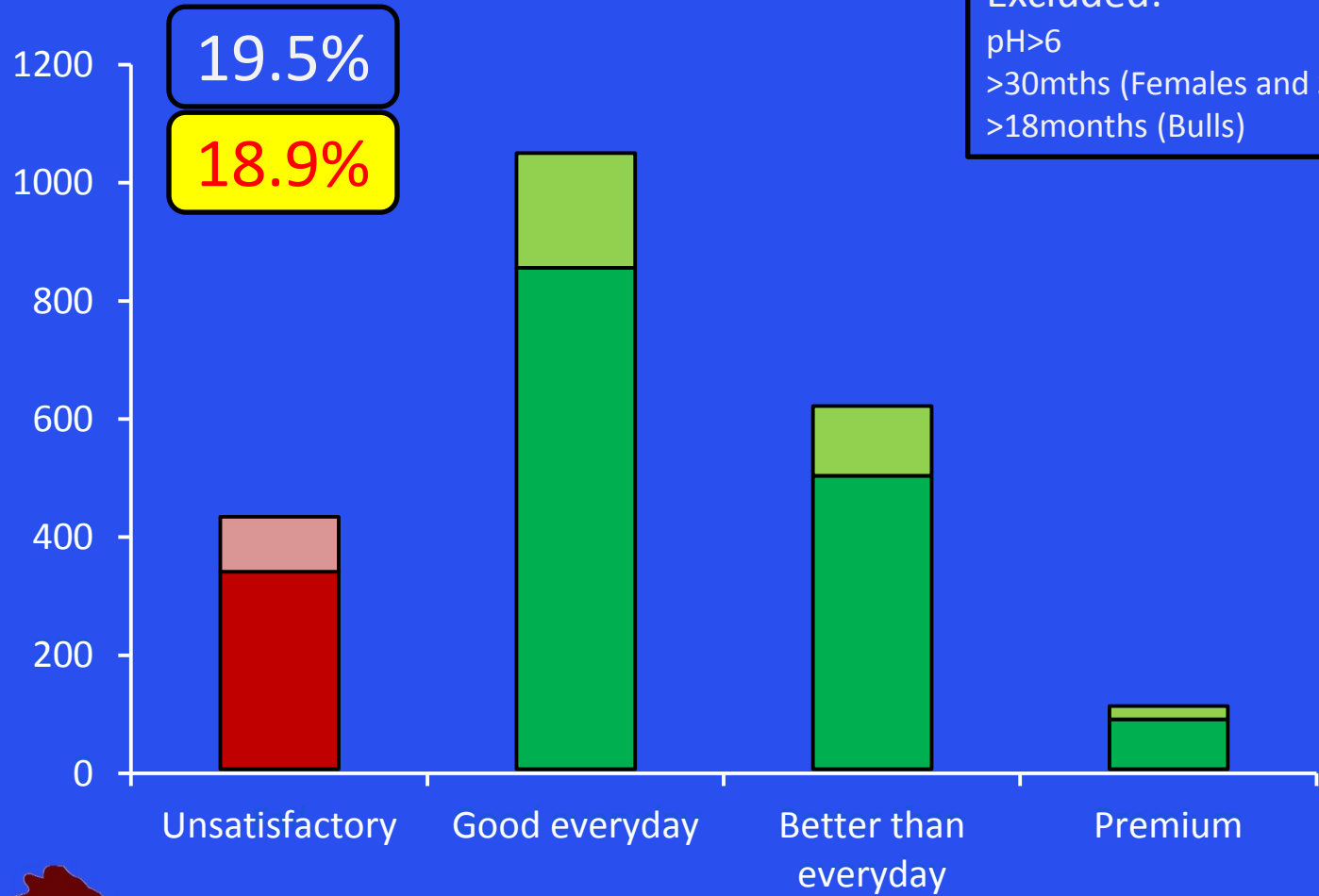
Consumer scores: Grilled Striploin

Excluded:

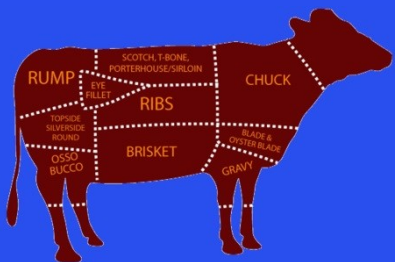
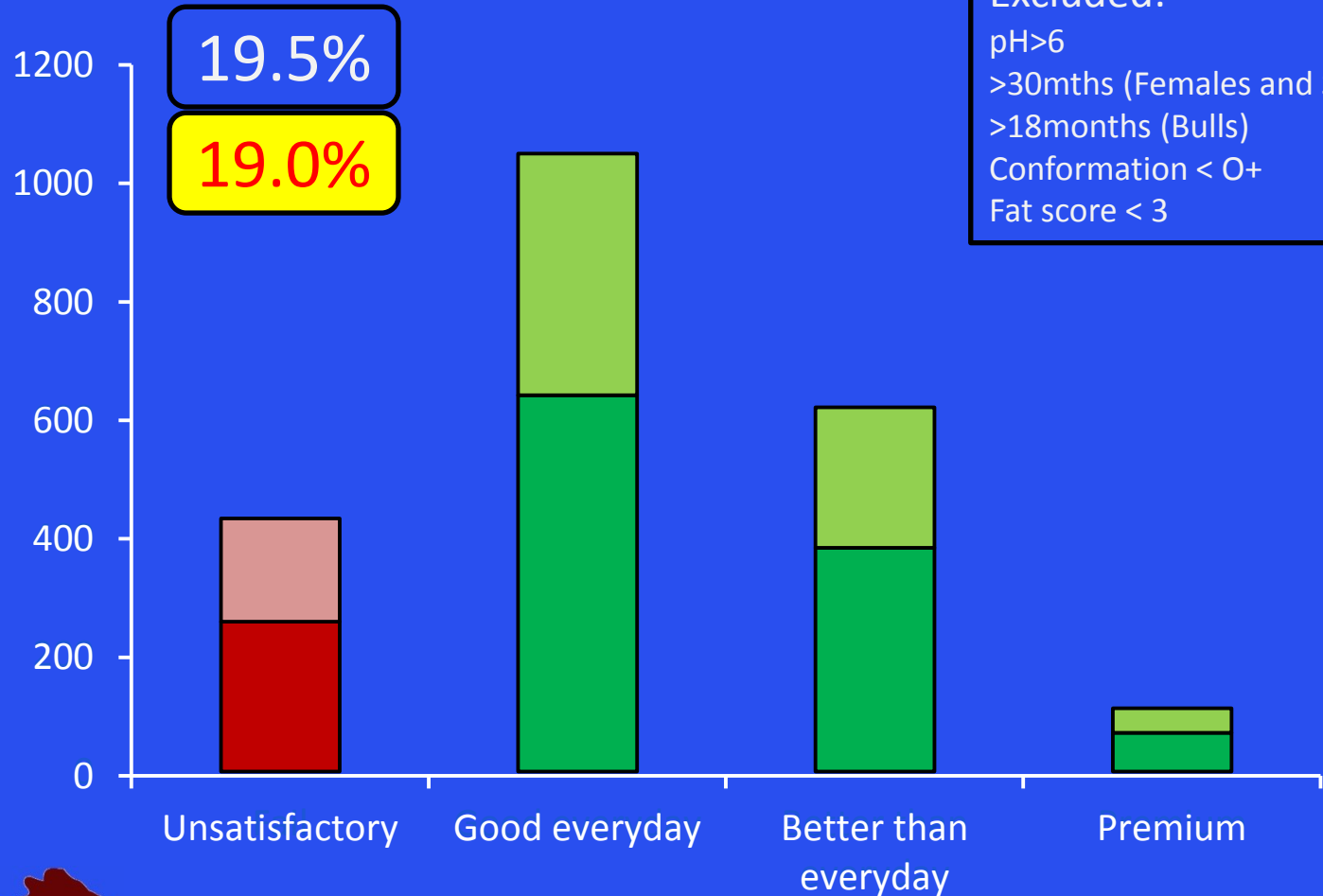
pH>6

>30mths (Females and Steers)

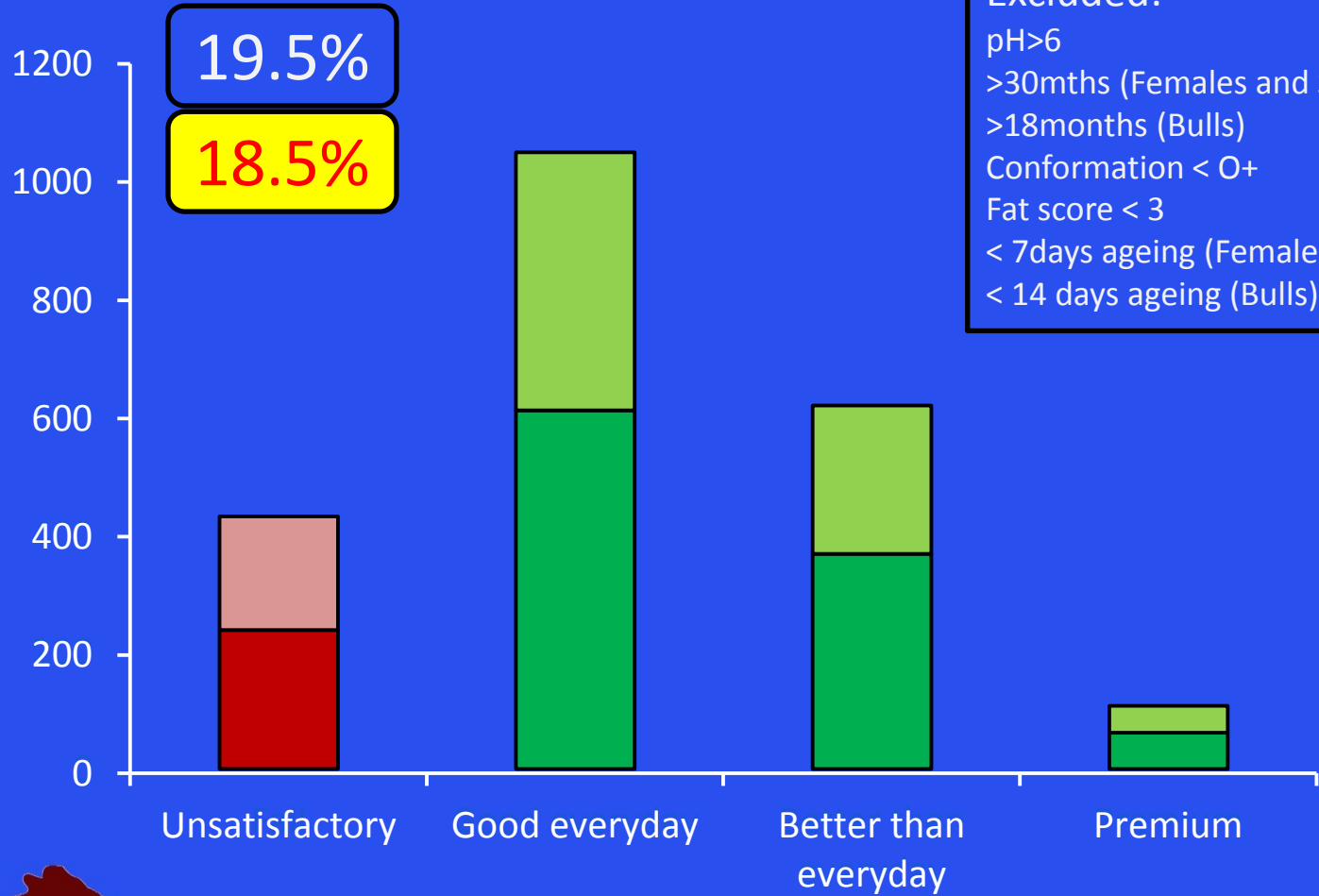
>18months (Bulls)



Consumer scores: Grilled Striploin



Consumer scores: Grilled Striploin



Excluded:

pH>6

>30mths (Females and Steers)

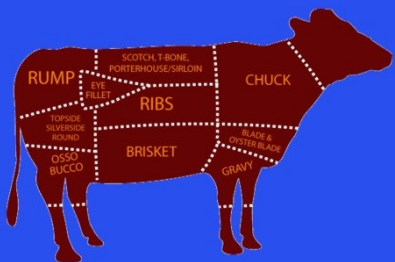
>18months (Bulls)

Conformation $< 0^\circ$

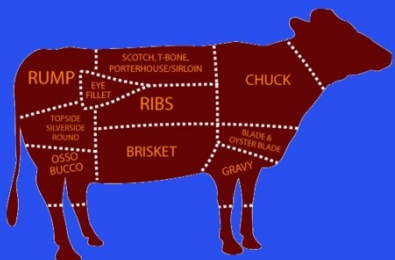
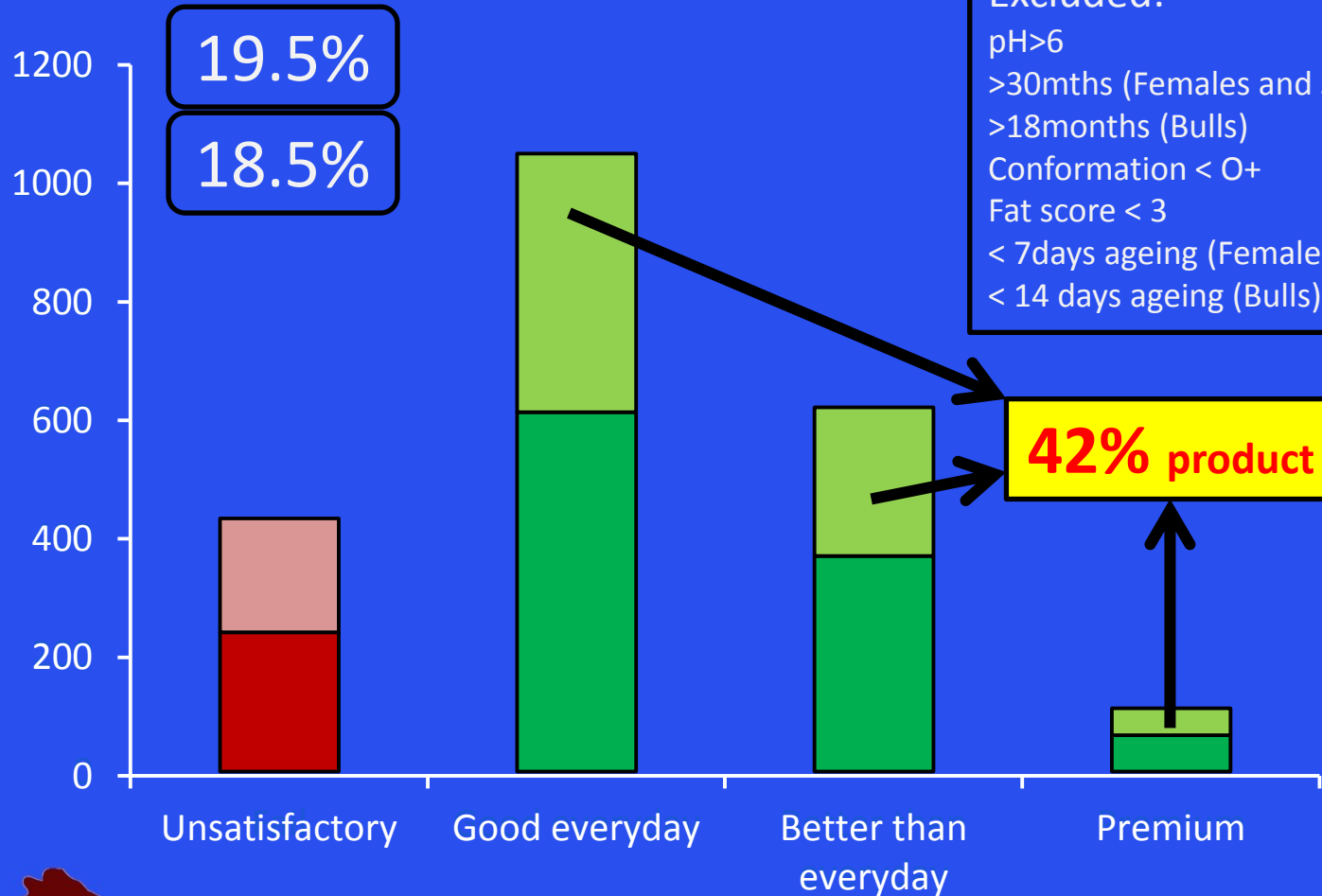
Fat score < 3

< 7days ageing (Females and Steers)

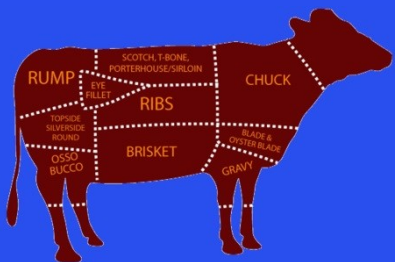
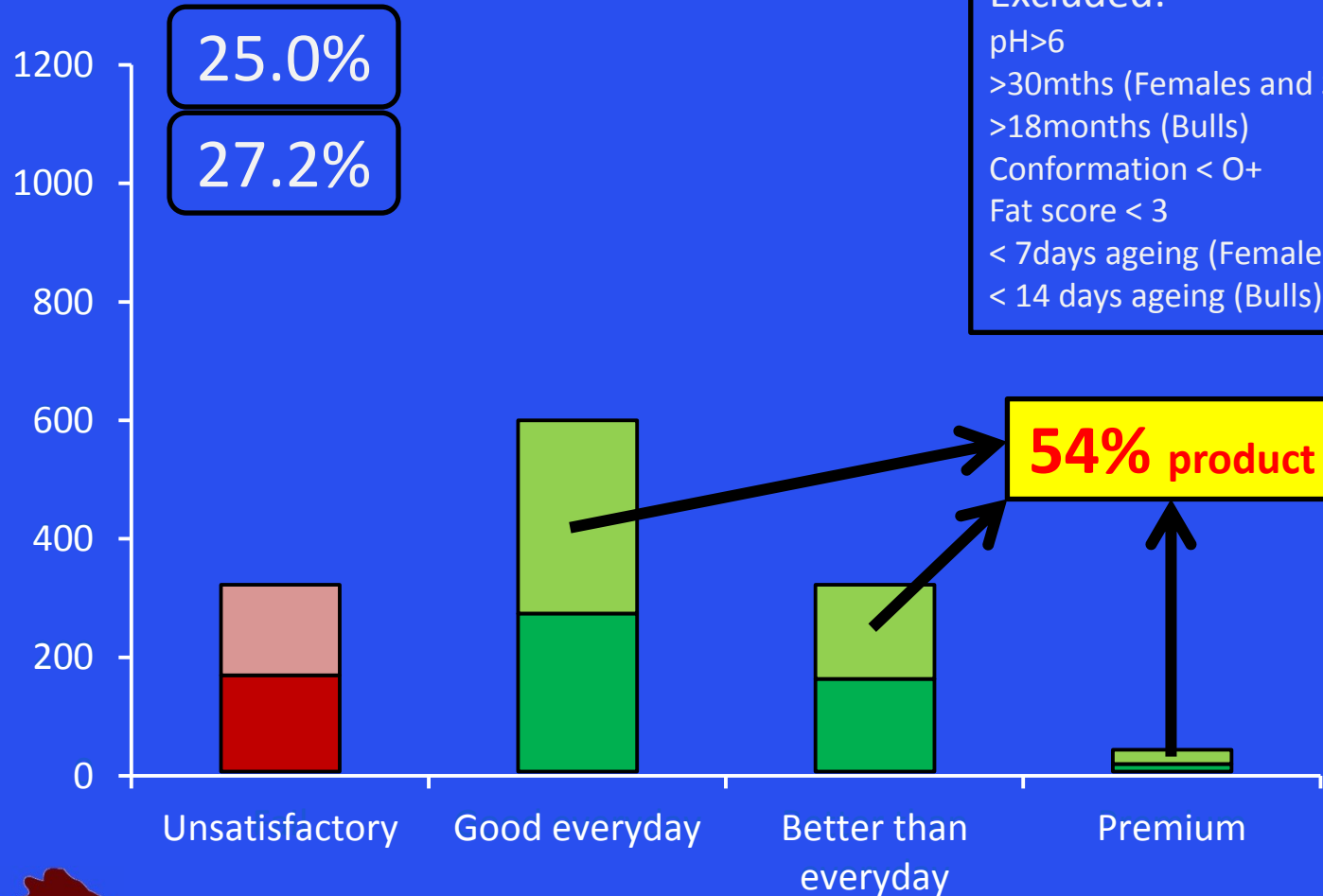
< 14 days ageing (Bulls)



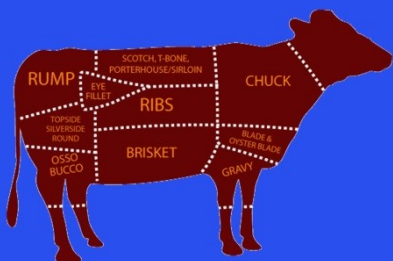
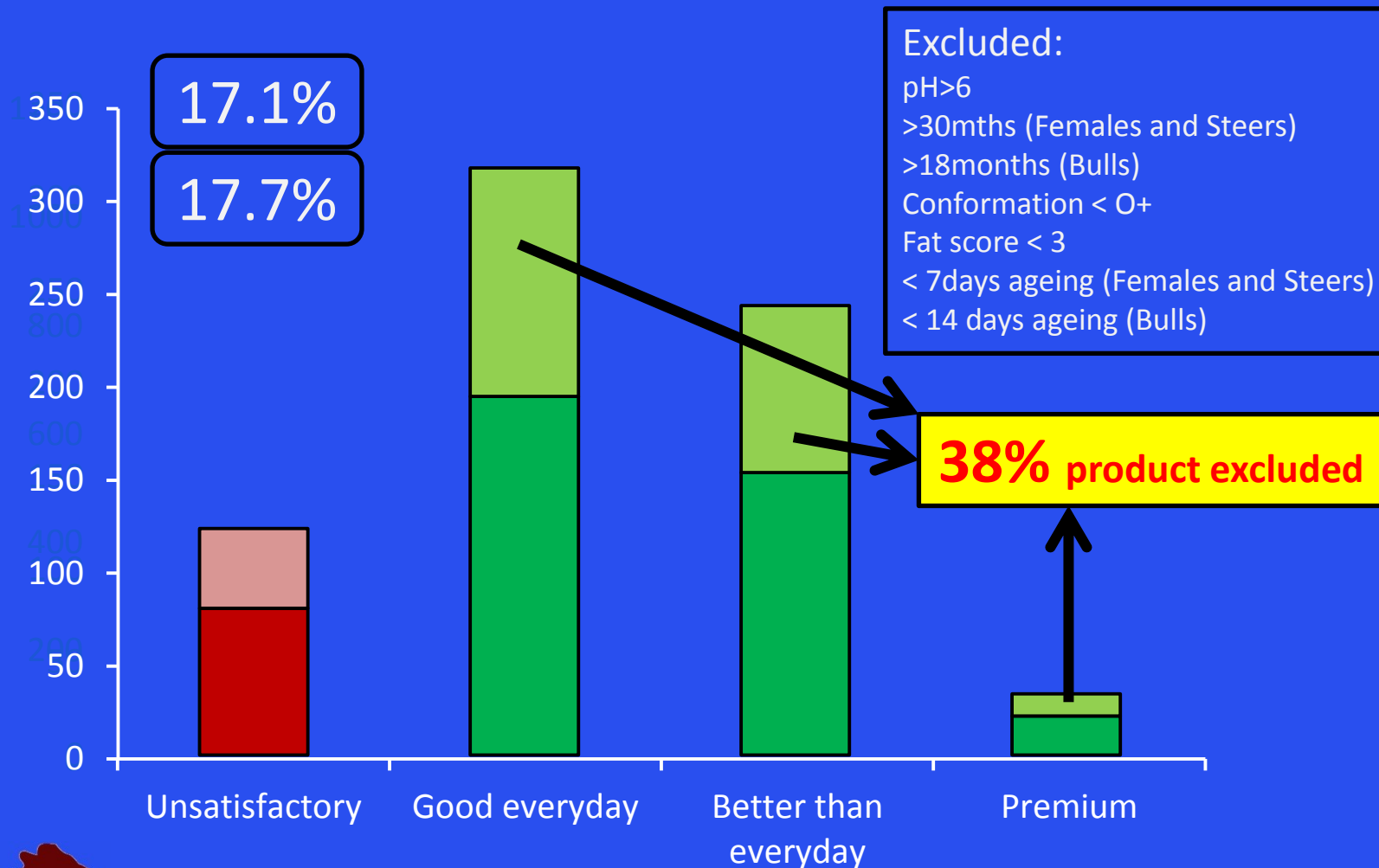
Consumer scores: Grilled Striploin



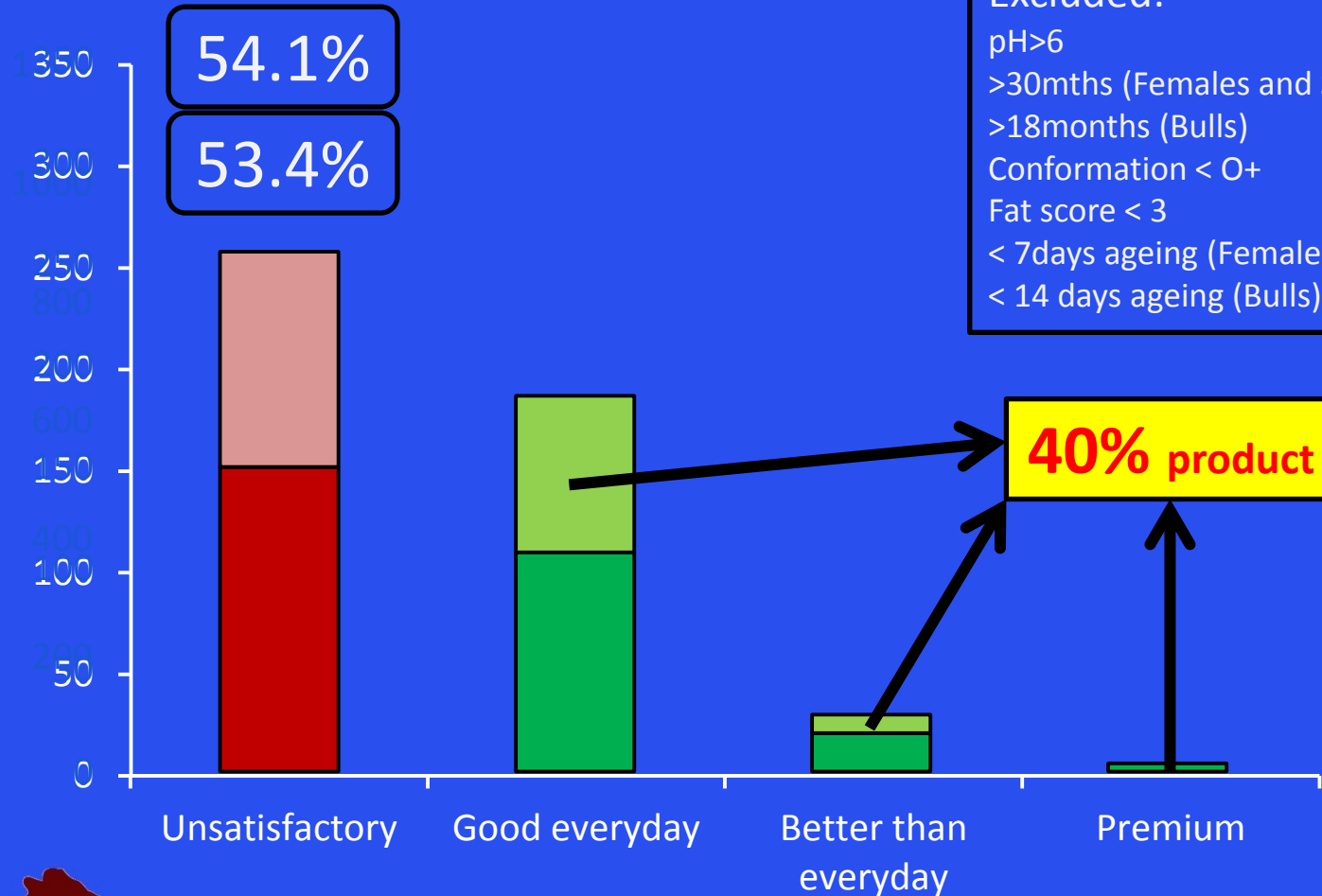
Consumer scores: Grilled Rump



Consumer scores: Roast Rump



Consumer scores: Roast Topside



Excluded:

pH>6

>30mths (Females and Steers)

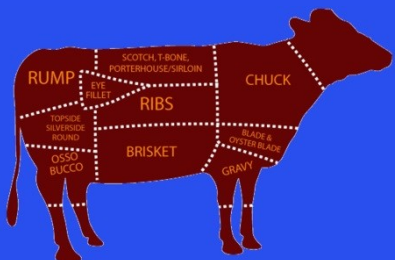
>18months (Bulls)

Conformation < O+

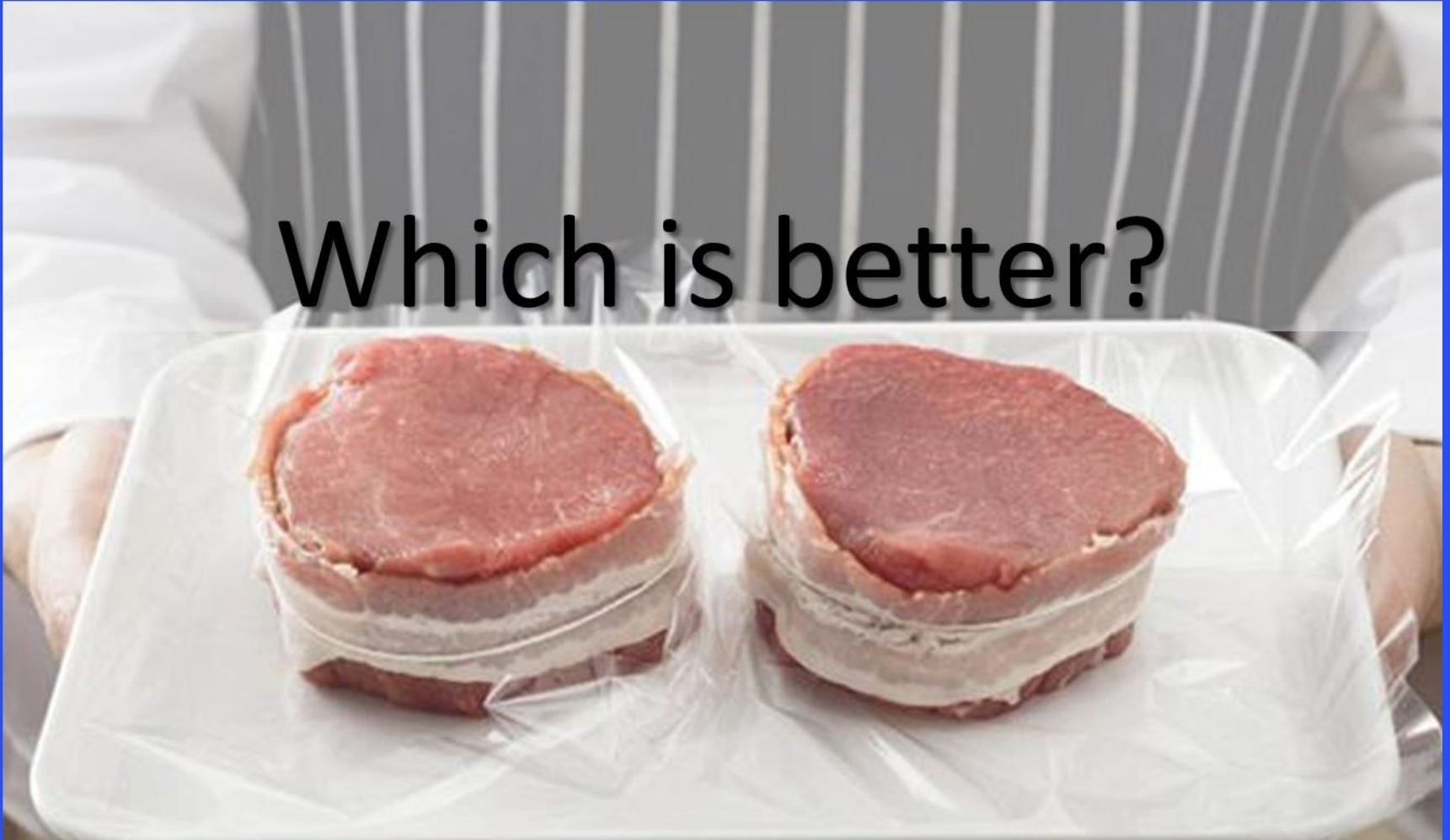
Fat score < 3

< 7days ageing (Females and Steers)

< 14 days ageing (Bulls)



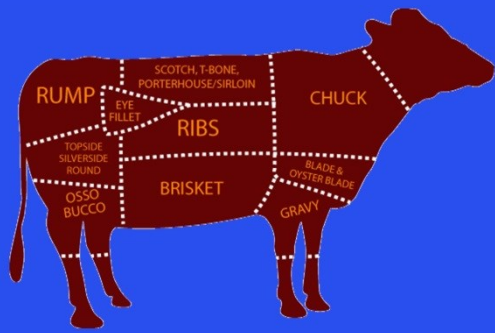
Which is better?



The image shows two identical-looking sandwiches on a white tray. Each sandwich is made with a round, reddish-brown patty, a layer of white cream, and a slice of white cheese. They are wrapped in clear plastic. Four large red question marks are placed around the sandwiches, two in the top corners and two in the bottom corners. The background is a blue gradient.

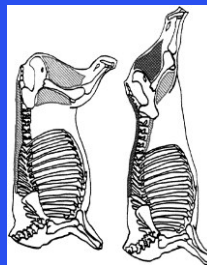
Which is better?

Why?

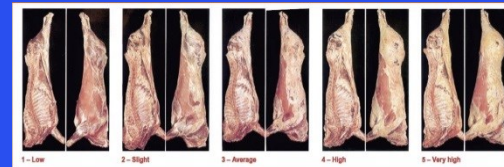


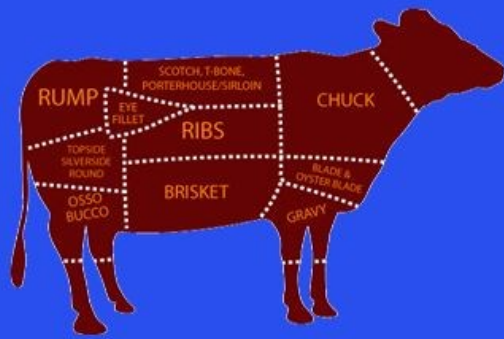
What's Missing?

- 5 countries
- Marbling: 100 -> 820
- Carcass wt: 168 kg -> 531 kg
- Beef, Dairy and Crosses
- Achilles or Tender stretch
- 4 cooking methods



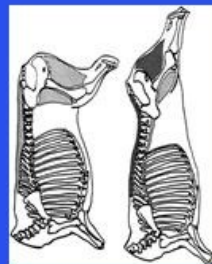
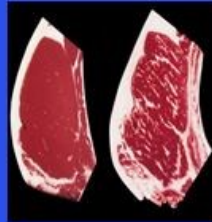
- Age: 7 months -> 17 years
- Bulls, Females, Steers
- Ultimate pH: 5.6 -> 7.2
- Aged from 5-35 days
- Conformation E -> P
- Fat 1 -> 5



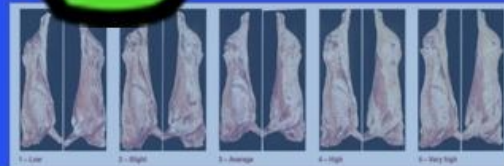
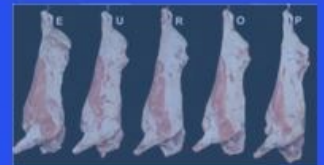


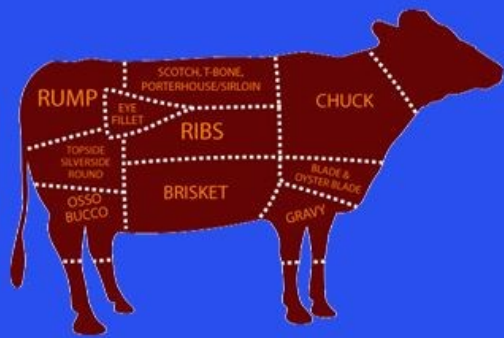
What's Missing?

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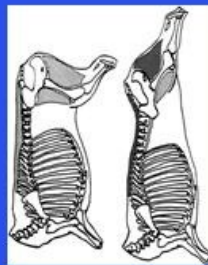
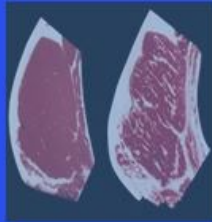
- Age: 7 months -> 17 years
- Bulls, Females, Steers
- Ultimate pH: 5.2 -> 5.8
- Aged from 7 -> 28 days
- Marbling from E -> P
- 4 cooking methods



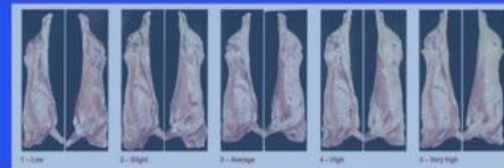
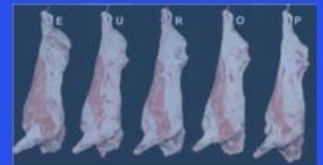


What's Missing?

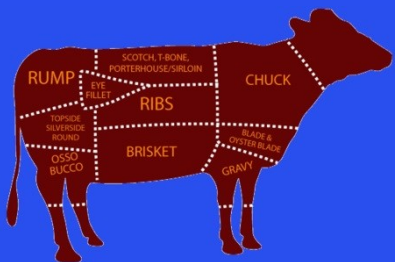
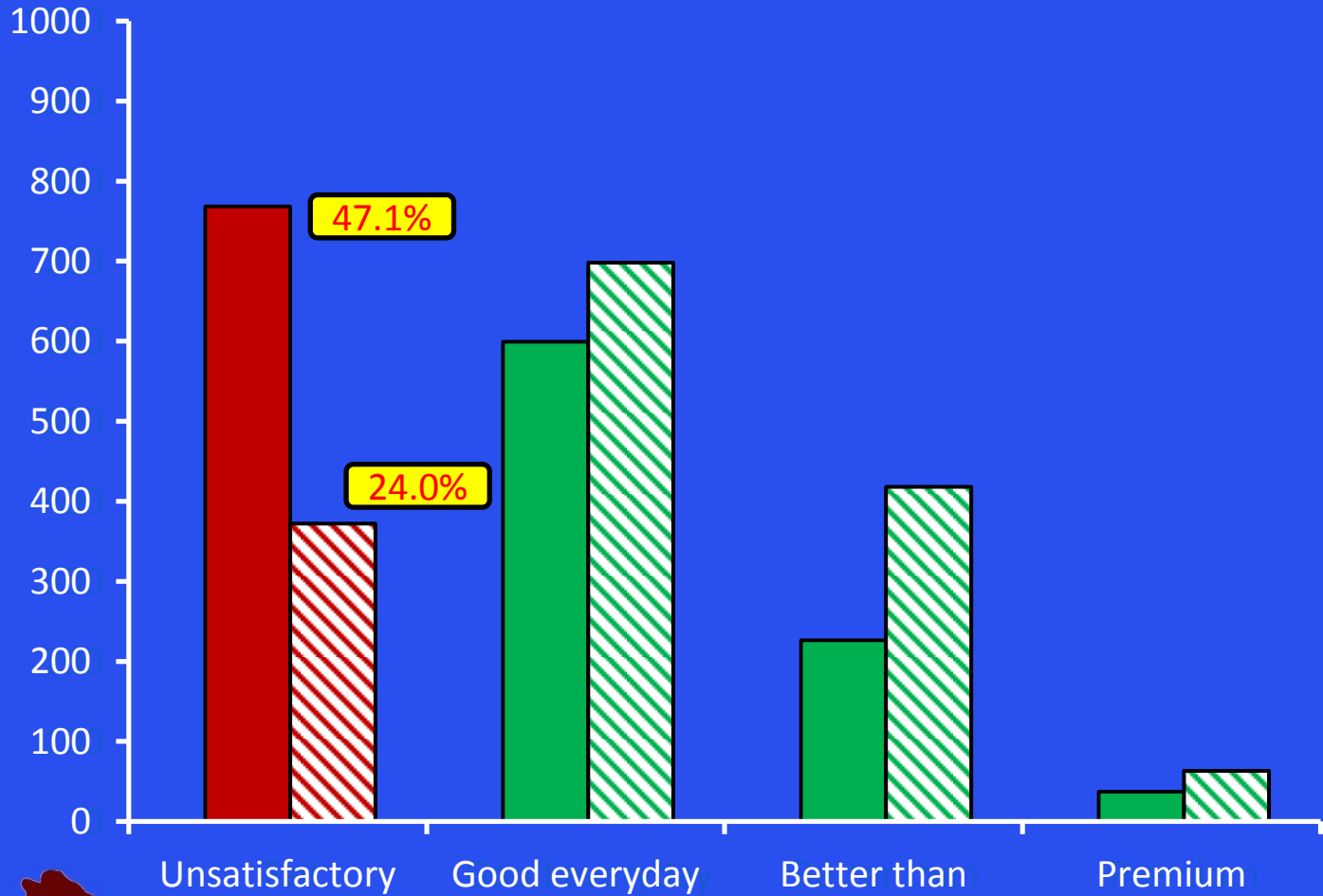
- 5 countries
- Marbling: 100 -> 820
- Carcass wt: 168 kg -> 531 kg
- Beef, Dairy and Crosses
- **Achilles or Tender stretch**
- 4 cooking methods

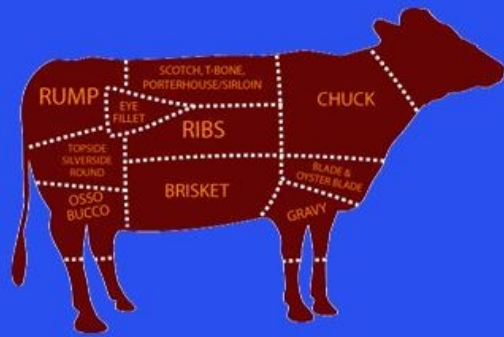


- Age: 7 months -> 17 years
- Bulls, Females, Steers
- Ultimate pH: 5.6 -> 7.2
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- Conformation E -> P
- Fat 1 -> 5



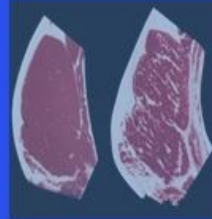
Consumer scores: Hang method



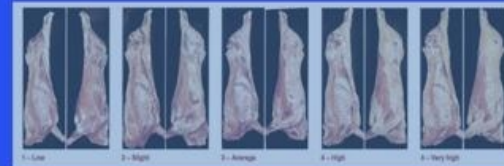
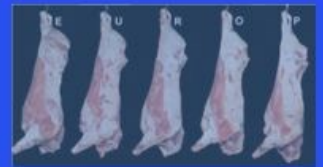


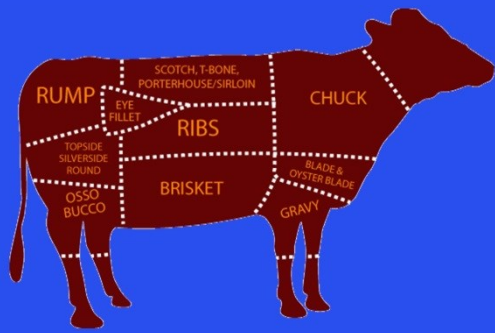
What's Missing?

- 5 countries
- Marbling: 100 -> 820
- Carcass wt: 168 kg -> 531 kg
- Beef, Dairy and Crosses
- **Achilles or Tender stretch** ✓
- 4 cooking methods



- Age: 7 months -> 17 years
- Bulls, Females, Steers
- Ultimate pH: 5.6 -> 7.2
- Aged from 5-35 days
- Conformation E -> P
- Fat 1 -> 5

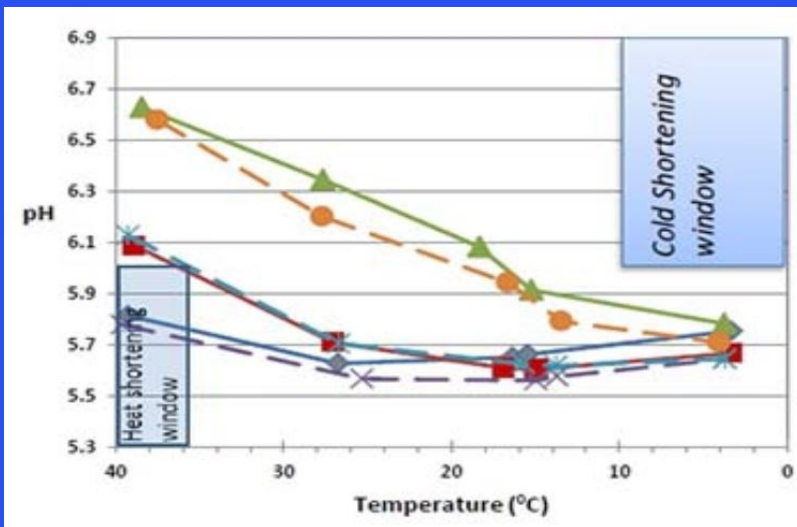




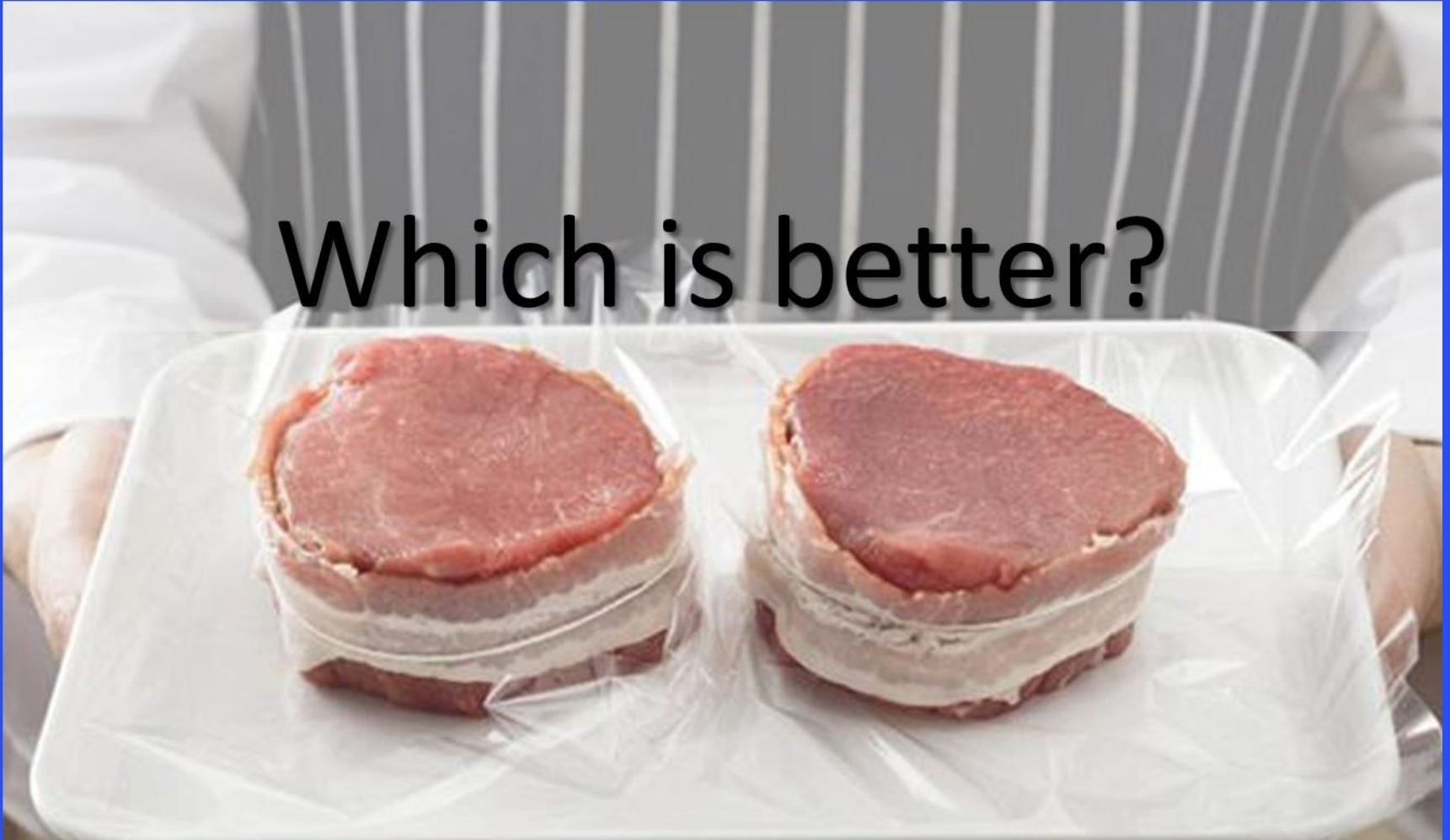
What's Missing?

Not in this dataset

- Growth-Rate
- Pre-Slaughter management (Ultimate pH?)
- pH decline (cold & heat shortening)



Which is better?



Which is better?

The consumer has no idea!

Grilled Striploin:

19% “unsatisfactory”

Grilled Rump:

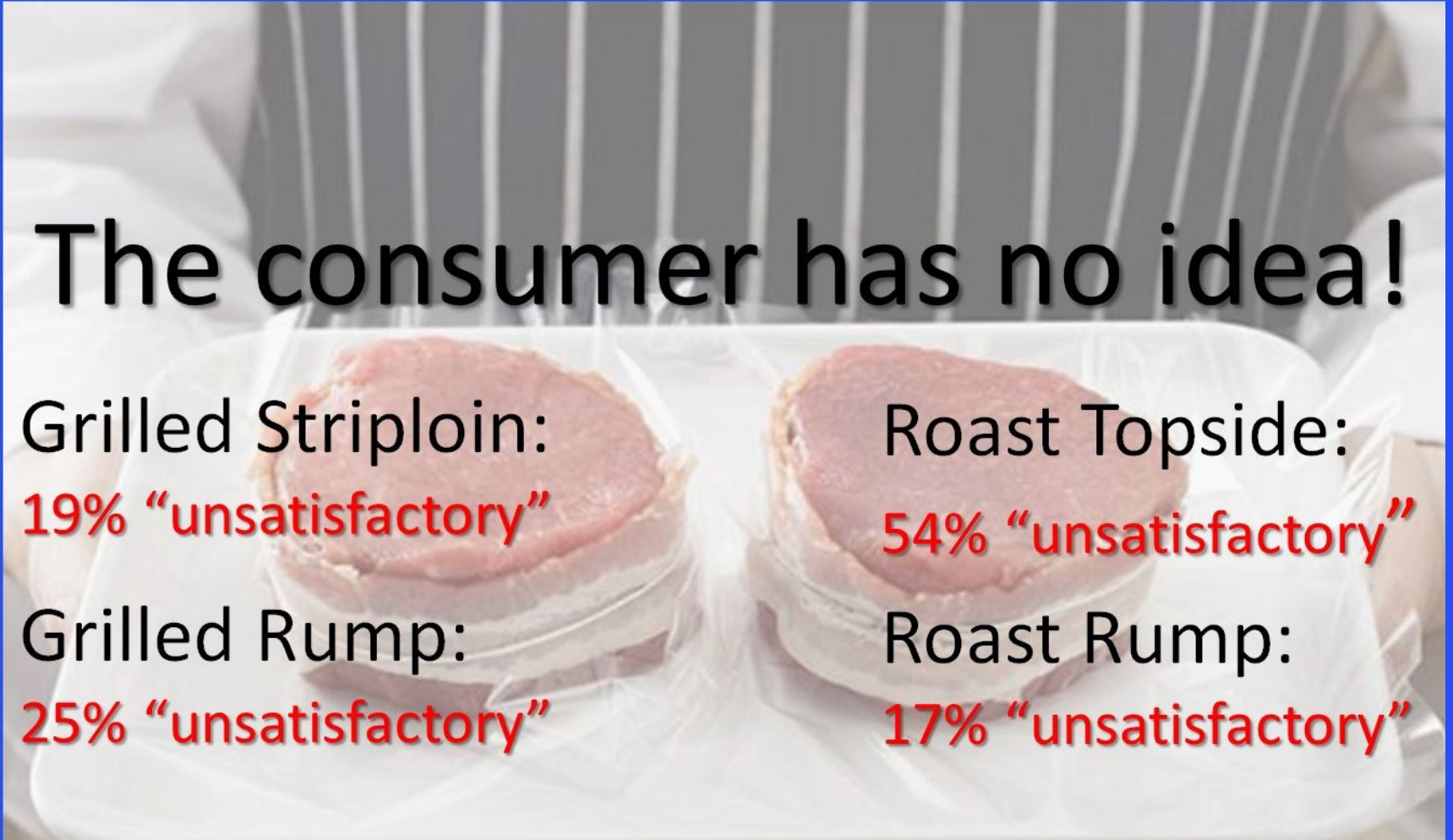
25% “unsatisfactory”

Roast Topside:

54% “unsatisfactory”

Roast Rump:

17% “unsatisfactory”



Contributors

