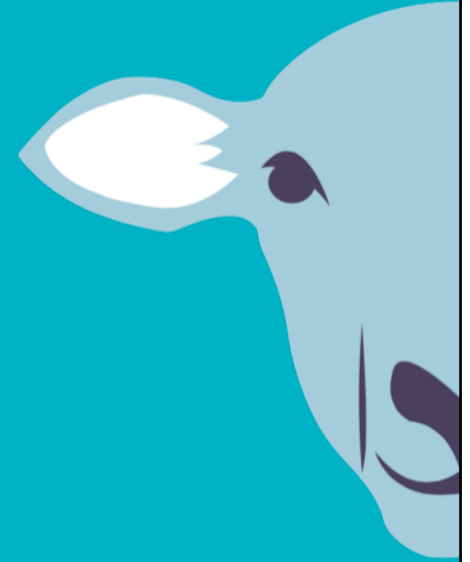




B+LNZ GENETICS
SHEEP BREEDER FORUM

2016



Redefining Carcass Merit

Neville Jopson, AbacusBio
Mark Young, B+LNZ Genetics

New definition of carcass merit

- Set optimum fat “cover” (SC fat)
- Assess intramuscular fat (IMF or marbling)
- What about intermuscular fat?

New definition of carcass merit

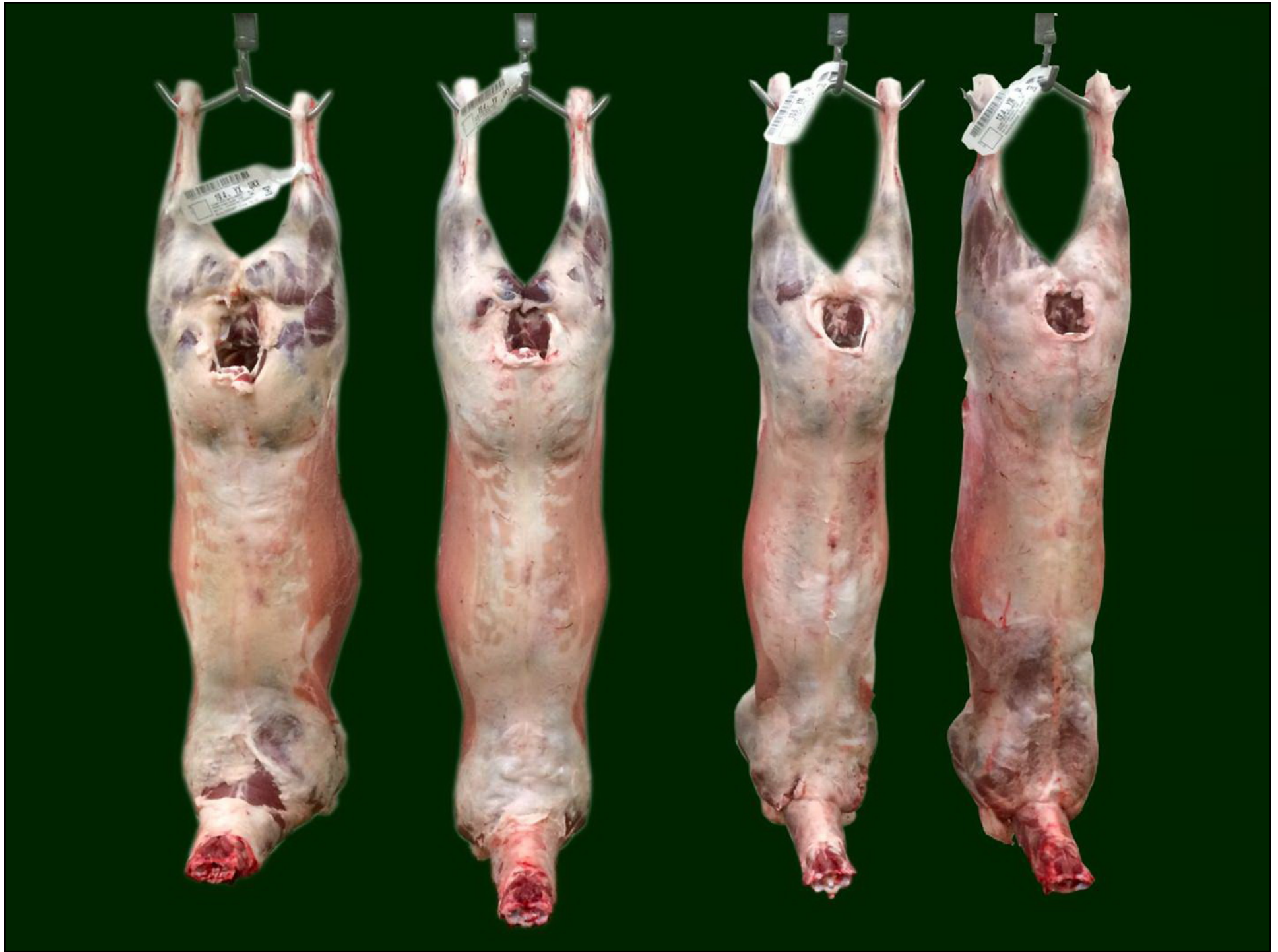
- Set optimum fat “cover” (SC fat)
- Assess intramuscular fat (IMF or marbling)
- What about intermuscular fat?
- Value muscularity
- Value meat yield

New definition of carcass merit

- Set optimum fat “cover” (SC fat)
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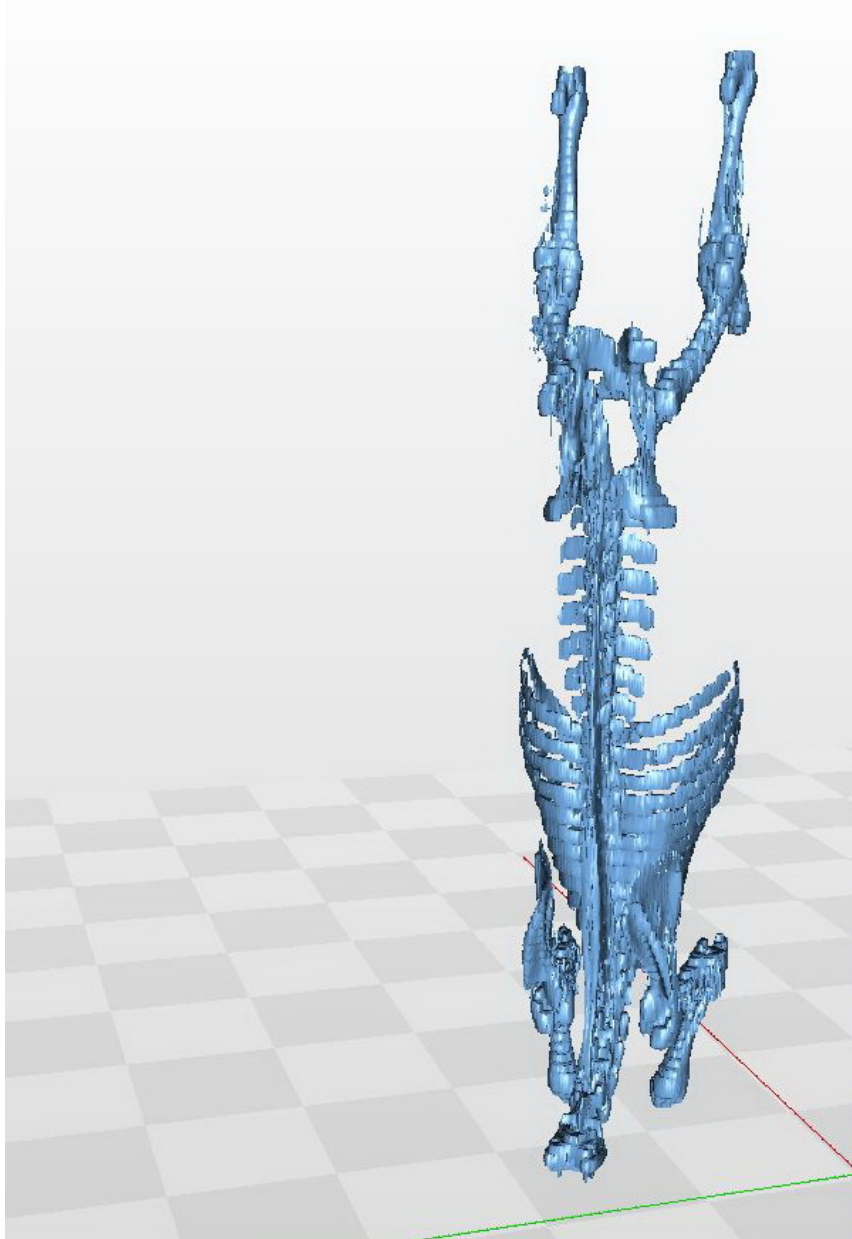
Align with commercial carcass
assessment systems

Carcass shape & muscularity



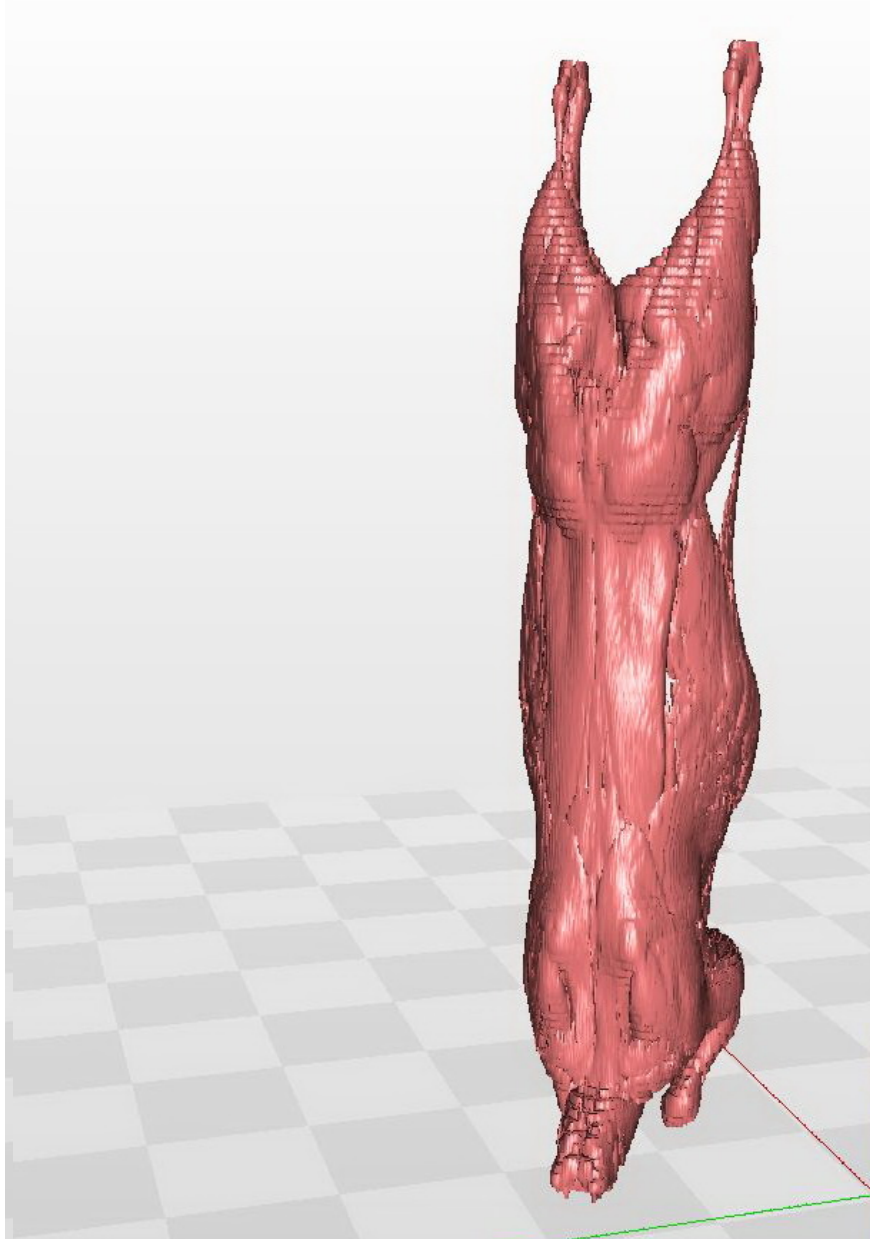


CT scans: 3-D carcass tissue



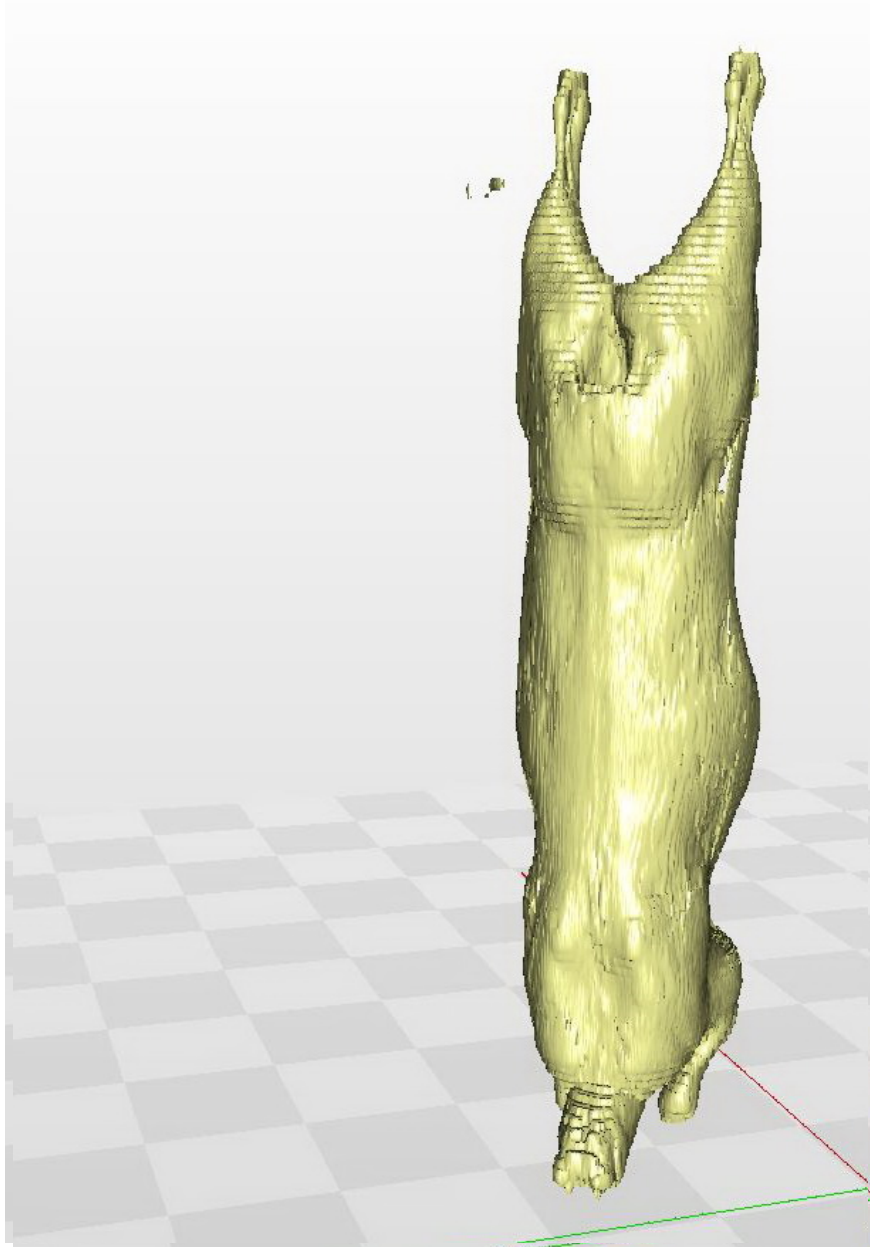
- Measure skeletal dimensions

CT scans: 3-D carcass tissue



- Measure skeletal dimensions
- Assess muscle volume overall or by region

CT scans: 3-D carcass tissue



- Measure skeletal dimensions
- Assess muscle volume overall or by region
- Describe fat distribution

carcass

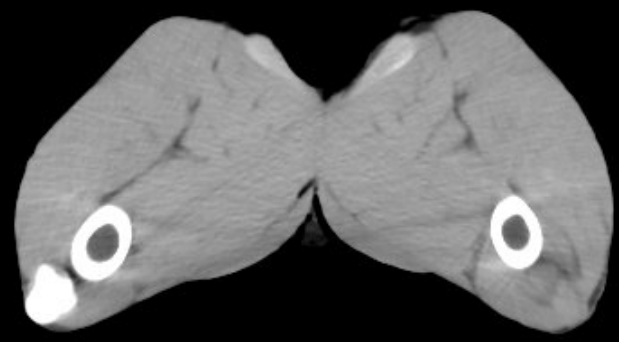
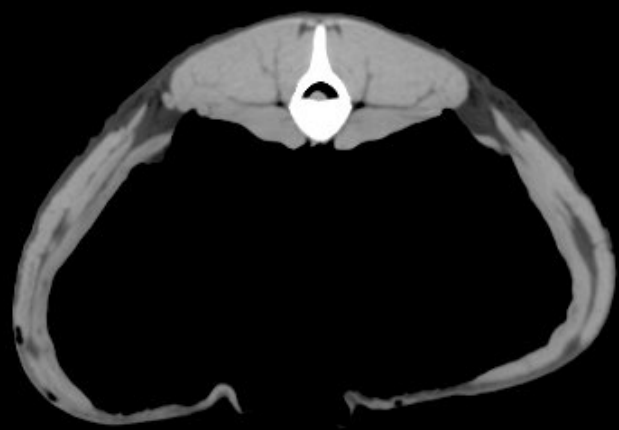
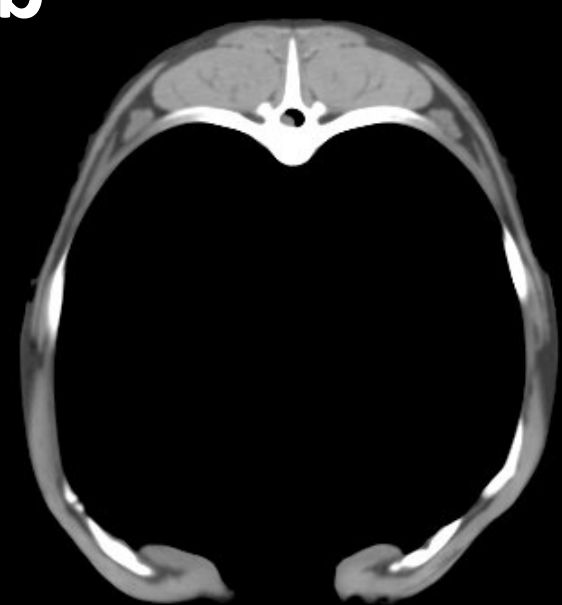
You can view this video in Mark's presentation on
our video page

www.blzgenetics.com/news/video-clips

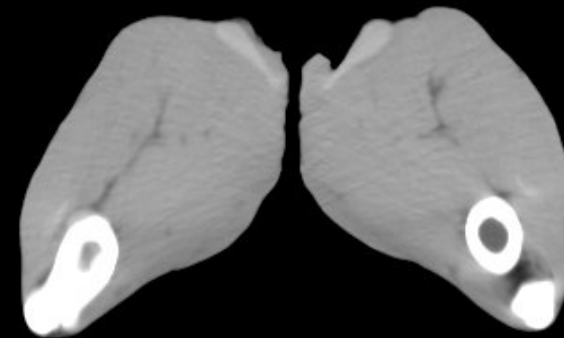
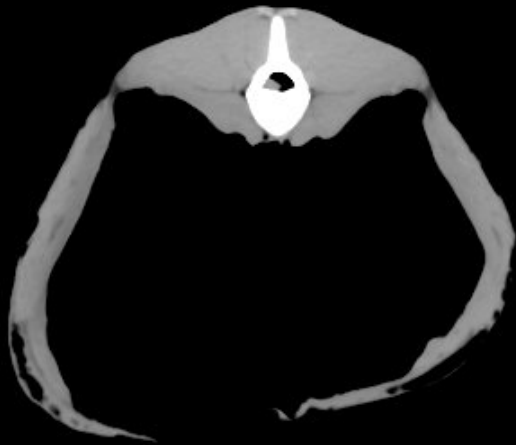
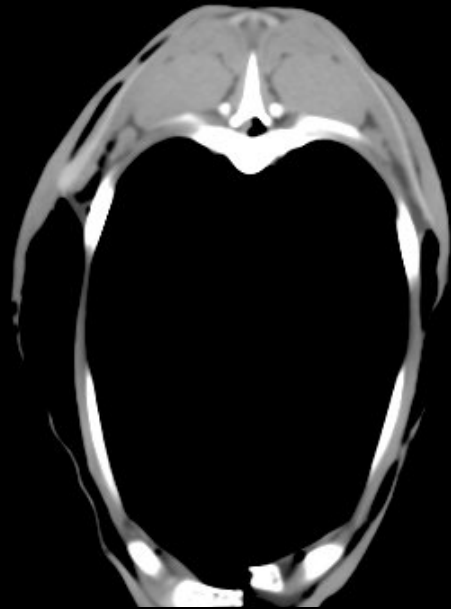
Sites to assess muscle shape & IMF

- Shoulder
- Chest
- Loin
- Hind leg

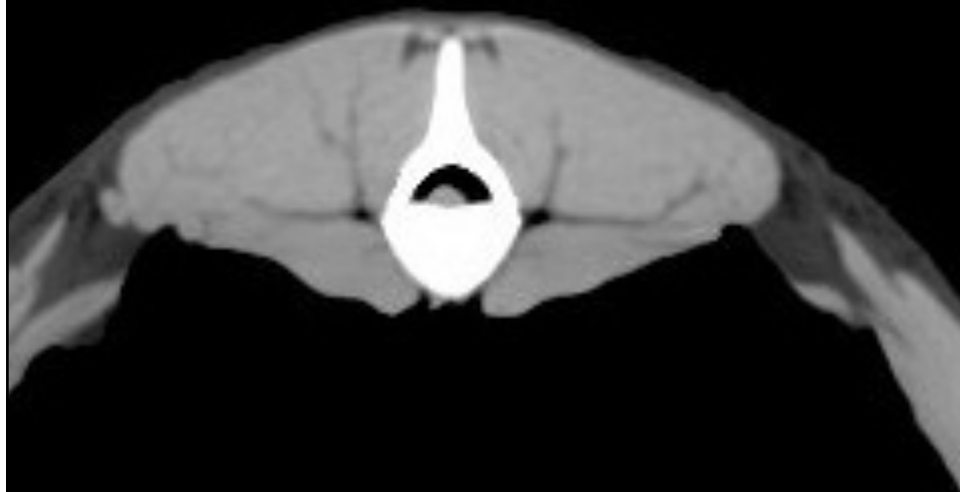
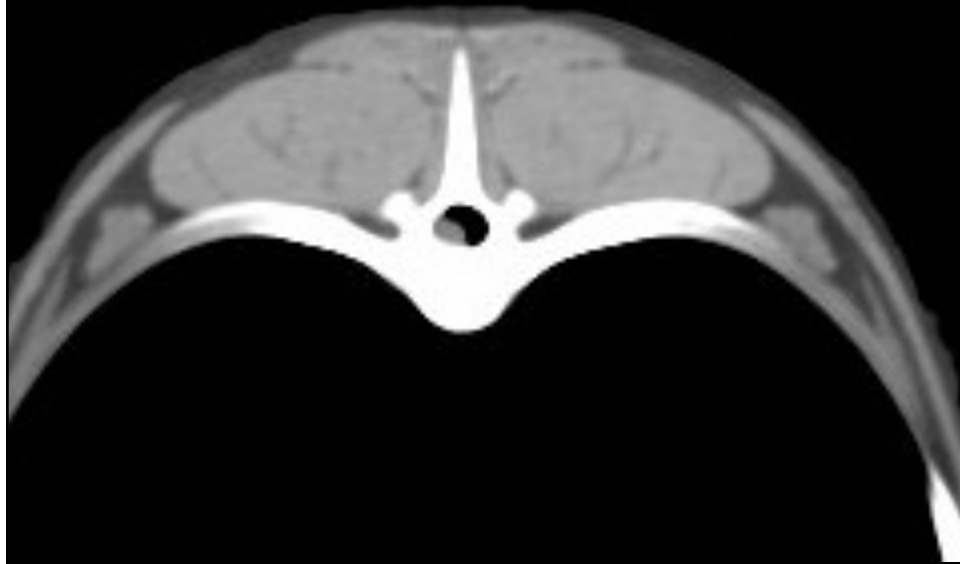
Fatter lamb



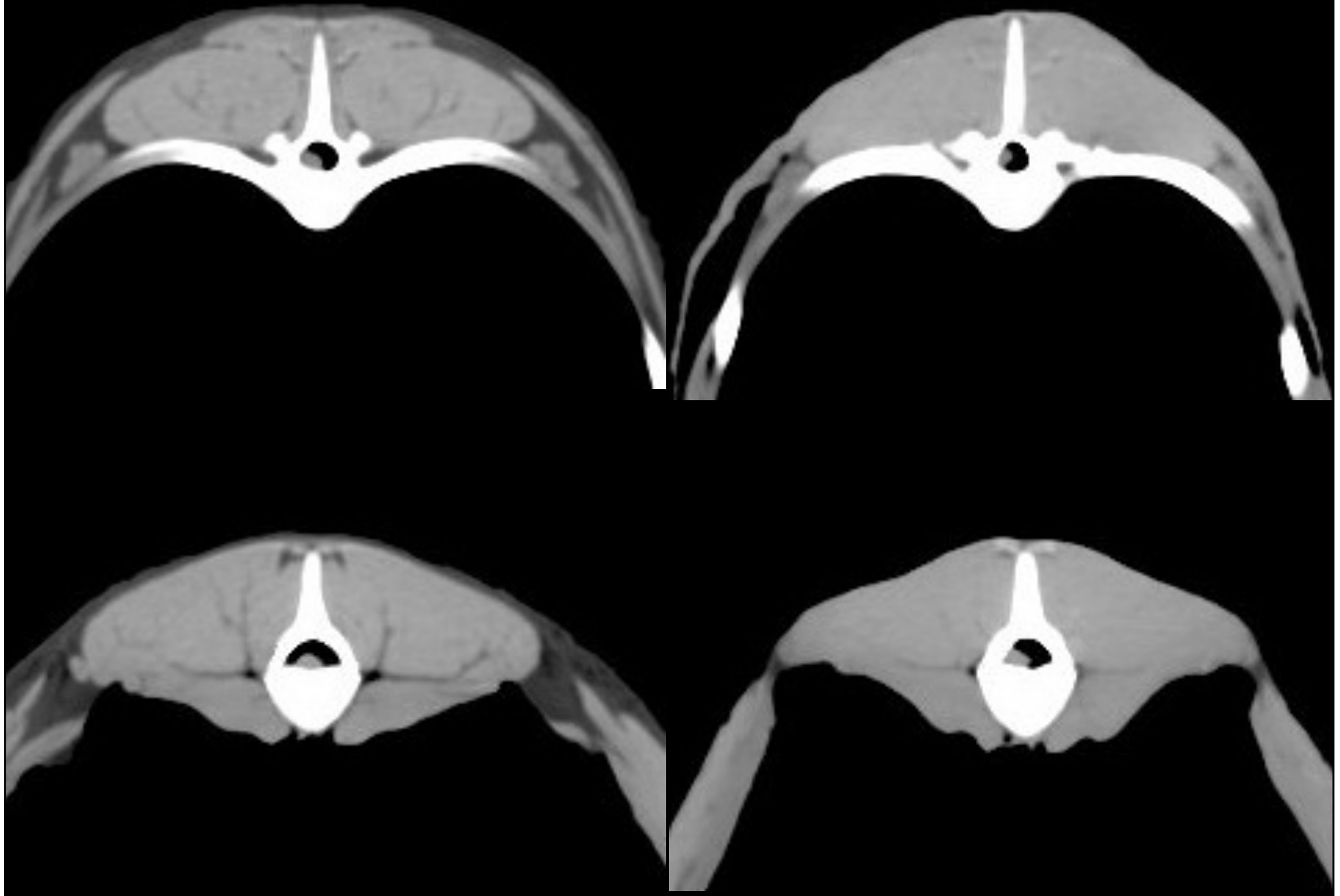
Very lean lamb



Muscle IMF



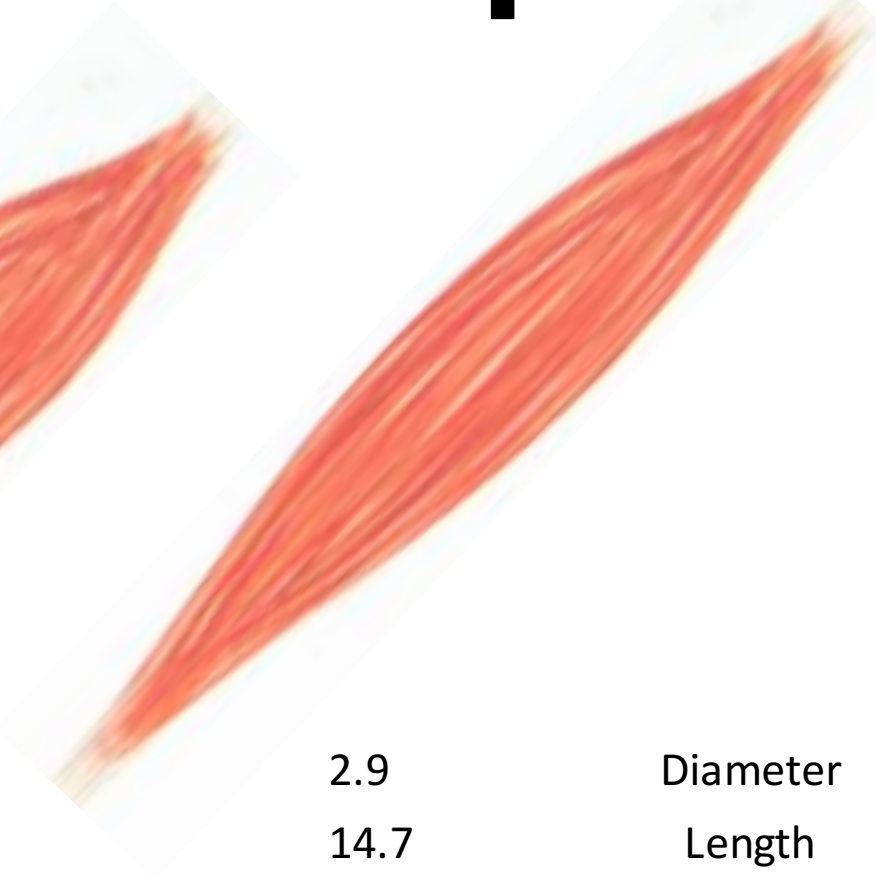
Muscle IMF



Measuring muscle shape



Measuring muscle shape

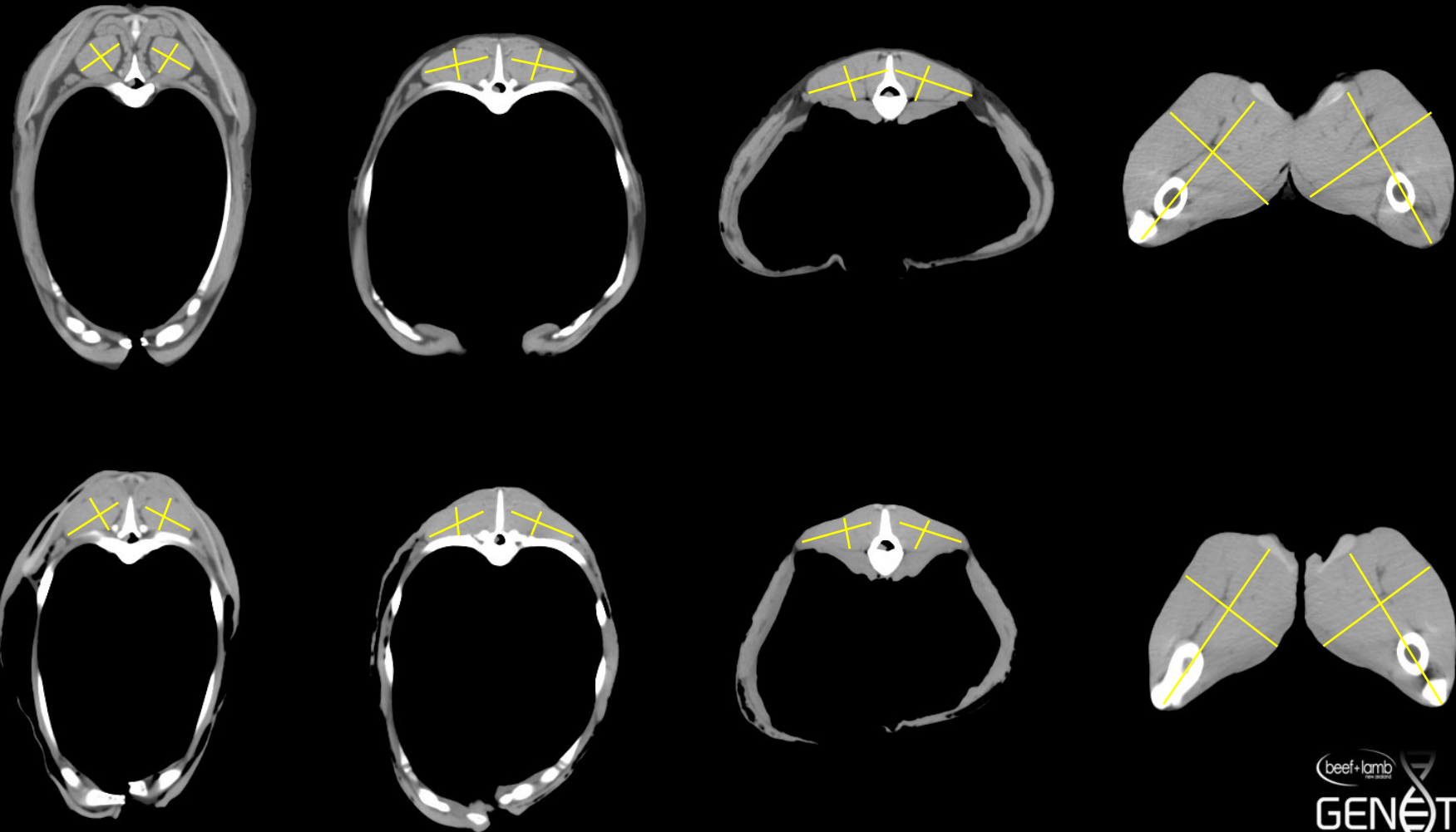


3.8	3.4	2.9	Diameter
8.7	10.9	14.7	Length
58.0	58.0	58.0	Volume
0.43	0.31	0.20	$\frac{\text{Diameter}}{\text{Length}}$
0.088	0.045	0.018	$\frac{\text{Volume}}{\text{Length}^3}$

Muscularity index

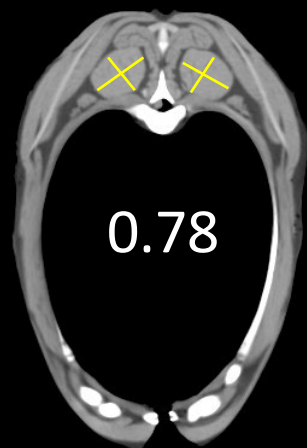


Muscularity index

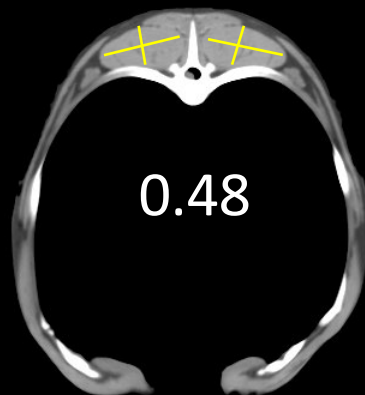


Muscularity index

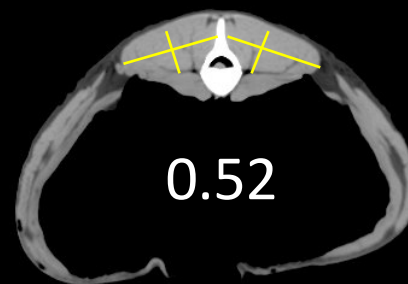
+43%



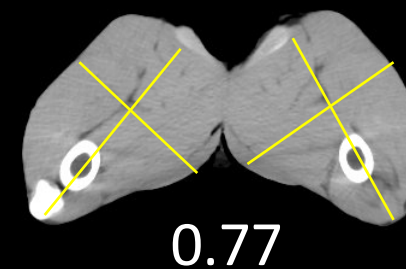
+7%



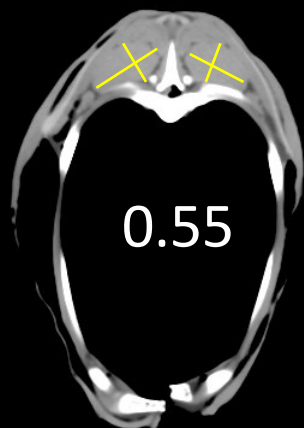
+23%



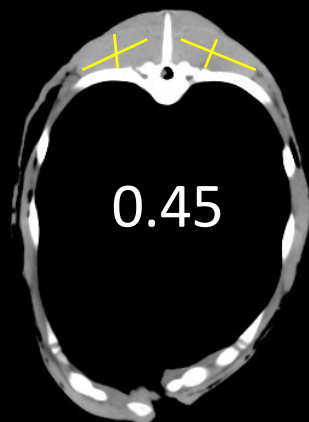
+11%



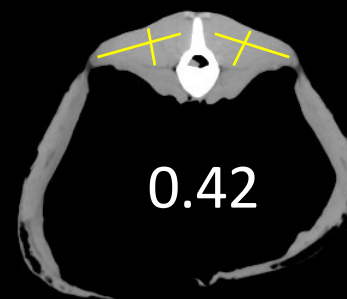
0.55



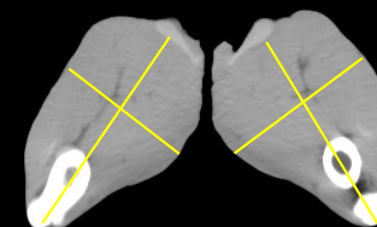
0.45



0.42



0.69





Carcass shape / muscularity

- Muscle volume / carcass length
- Muscle volume / spine length
- Leg muscle volume / leg length
- Eye muscle volume / spine length

Next steps

Solicit feedback from breeders

- Which sites show muscularity best?
- How is muscularity assessed?

Solicit feedback from meat companies

- What are indicators of higher meat yield?
- Are high yielding animals more muscular?
- How does fat influence “meat” yield
- Define meat yield in terms of live animal measurements



THANK YOU