

### Ultrasound Guidelines Council Update: Systems Review Committee

www.ultrasoundbeef.com

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UGC SRC Chair

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### Ultrasound Guidelines Council

- Subcommittee of the U.S. Beef Breeds Council
- Membership:
  - 4 Breed Association Reps
  - 3 Ultrasound Lab Reps
  - 3 Academic Reps
  - 1 Field Technician

### UGC Systems Review Committee

- Subcommittee of UGC
- 3 Academic representatives
- 1 At-will member
- Approval of new ultrasound systems for IMF
- No requests from ~Aug. 2010 to mid 2016

### Marbling EPD Calculation

Trait	Marbling Steer Progeny	UTS - % IMF Bulls, Steers, & Heifers
Marbling Steer Progeny	0.45	
UTS - %IMF Bulls, Steers, & Heifers	0.52 – 0.84	0.26 – 0.40

by on demand, r. below demand  
Marble & Intramuscular (2009) – J Anim Sci 86:2518-2524

### Ultrasound “System”

- Ultrasound machine
  - Console
  - Transducer
  - Settings
- Frame grabber board
  - Digitizes the images
  - Image storage method
- Interpretation software

### Since 2016

- Identify the committee
- Review of protocol
- Evaluate systems
- Notification

### System Review Protocol - Highlights

- Notice to SRC of intention to introduce a new system
  - Summary of developmental data
- Developer/participant pays for System Review Expenses
- Minimum of 70 animals with both ultrasound and chemical extracted fat
- Currently UGC approved system also scan same group of cattle

### Statistics to evaluate

- Bias
- Correlation
- Standard error of prediction
- Slope of ultrasound trait on carcass trait

## Recently Approved Systems

Participant	Ultrasound Machine	Frame Grabber Board	Intramuscular Fat Prediction Model
Ultrainsights	New Aloka 500	<b>Avermedia</b>	Ultrainsights New Aloka IMF model
Ultrainsights	<b>E. I. Medical - EVO</b>	<b>Onboard image storage</b>	<b>Ultrainsights EVO IMF model</b>

## Recently Approved Systems

Participant	Ultrasound Machine	Frame Grabber Board	Intramuscular Fat Prediction Model
CUP Lab	New Aloka 500	<b>Elgato</b>	CUP Lab New Aloka IMF model
CUP Lab	Aquila	<b>Elgato</b>	CUP Lab Aquila IMF model
CUP Lab	<b>ECM Exago 16 cm magn.</b>	<b>Digital image transfer</b>	<b>CUP Lab Exago 16 cm IMF model</b>
CUP Lab	<b>ECM Exago 20 cm magn.</b>	<b>Digital image transfer</b>	<b>CUP Lab Exago 20 cm IMF model</b>
CUP Lab	<b>E. I. Medical - EVO</b>	<b>Onboard image storage</b>	<b>CUP Lab EVO IMF Model</b>
CUP Lab	<b>E. I. Medical - Ibex Elgato</b>	<b>Elgato</b>	<b>CUP Lab Ibex Elgato IMF model</b>

## New Features

- Ultrasound machines
  - Size and portability
  - Digital transfer of images (no frame grabber)
  - Availability
- Frame grabber boards
  - Work with latest Windows software

## EXAGO



EVO and ibex



EVO



EVO

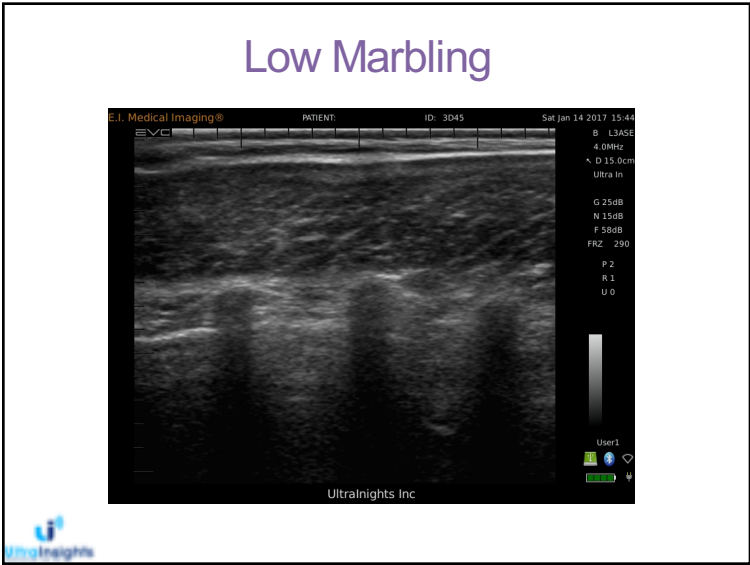
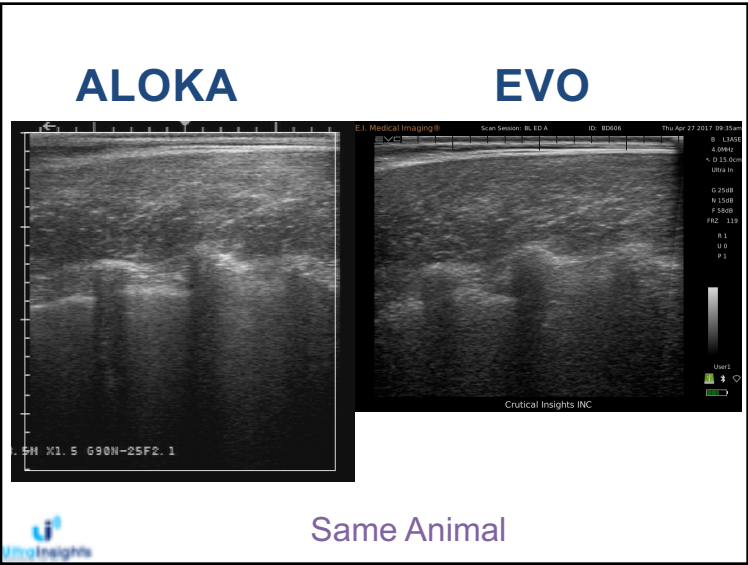
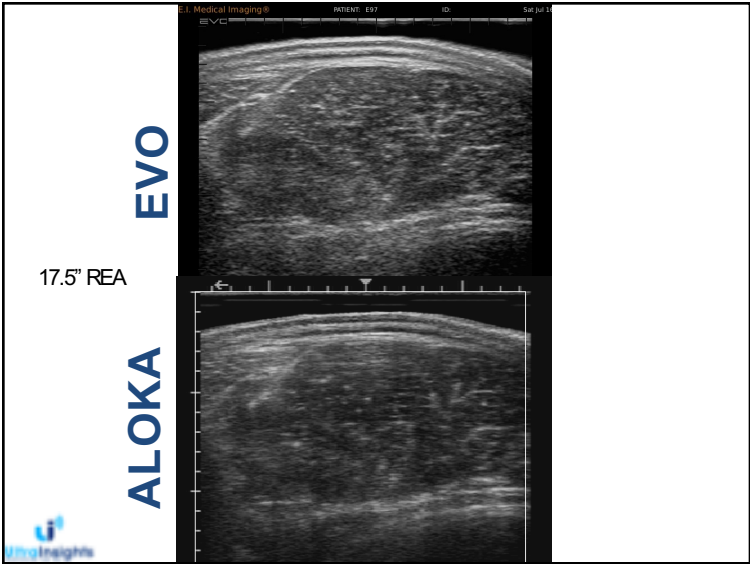
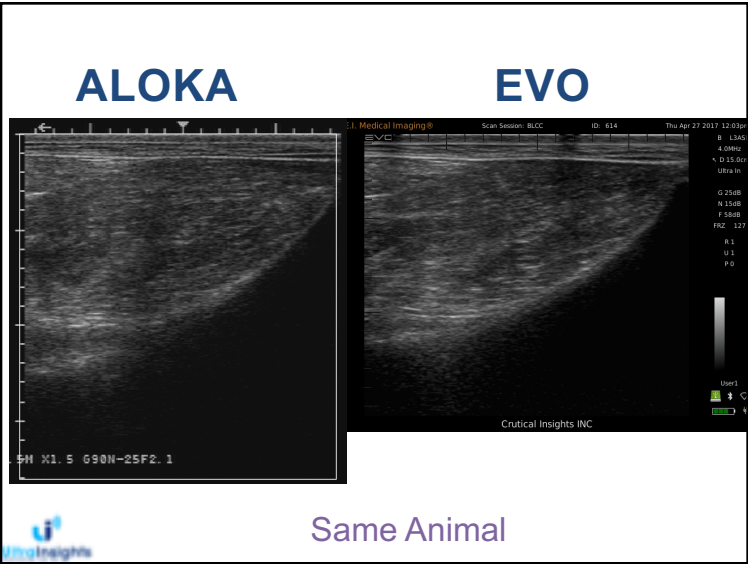


EVO



Some Videos and Images





## High Marbling



## Overview

- New components and hardware becoming certified ensures future of these phenotypes for selection
- System review process is not a system comparison

## Discussion