

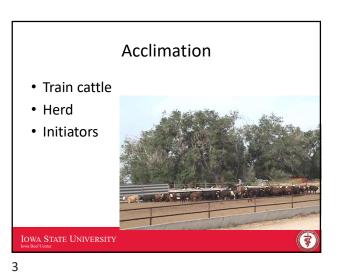
Acknowledge

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IOWA STATE UNIVERSITY
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Acclimation Desensitize **Social Behavior** New environment · Lost herd structure - Pen - Cow herd - Feed - Dam New people - Other calves · New herd mates New experience New Home - Feed truck - Processing

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Auction market, commercial feedyard Conventional, Acclimated groups Acclimated 3 times over a 10-day period, 2x prior and 1x after initial processing

Methods and Materials

• 3 sentinel calves from each pen for serum measurements

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Acclimation

- Day 1
 - Form group
 - $-\,\mathsf{Move}\,\mathsf{around}\,\mathsf{pen}$
- Day 2
 - Form group, walk past person
 - Walk through processing barn
- Day 3

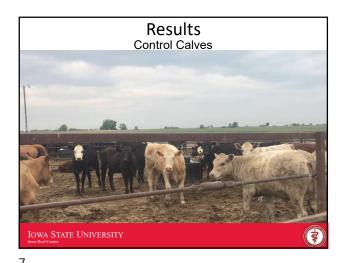
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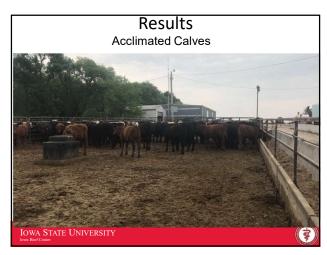
- $-\, Processed$
- Day 4 or 5
 - Move around pen as group

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Behavior Scoring

3. Freezing, may need encouragement to

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• Exit Behavior

exit

Calm walking or troting
 Run or jump out of chute

Behavior Scoring

- Chute Behavior
 - 1. Calm with no movement
 - 2. Restless shifting movement between processing events
 - 3. Frequent, continuous contact with chute
 - 4. Violent struggling

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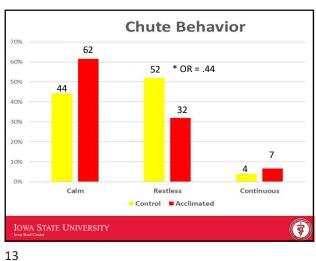
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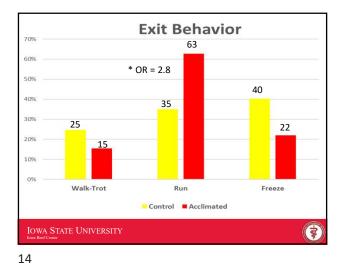
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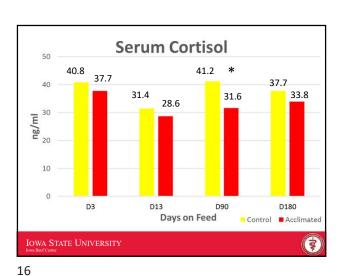




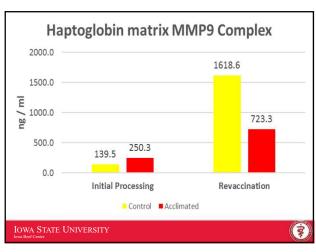


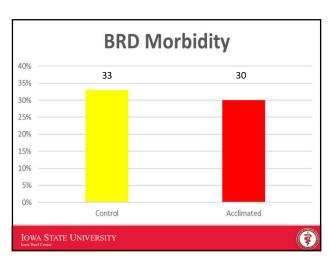


Motion Index P=0.03 6.86 4.96 Control Acclimated

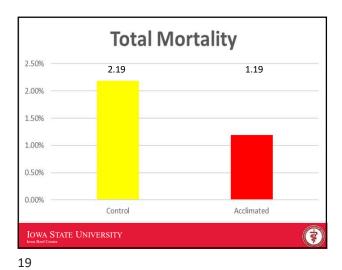


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Average Daily Gain

4.0
3.5
3.0
2.8
2.8
3.0
3.0
2.8
2.8
3.0
3.0
3.0

Revac
Reimplant
Terminal

Control
Acclimated

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Methods and Materials
Single source Florida
• 14 pens
Conventional, Acclimated groups
 Acclimated 3 times over a 10-day period, 2x prior, no trip through processing barn and 1x after initial processing
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Health				
	Conventional	Acclimated	p-value	
Respiratory Morbidity	17.5 %	14.9 %	0.13	
Total Morbidity	19.4 %	16.3 %	0.08	
Respiratory Mortality	0.11 %	0.0 %	0.24	
Total Mortality	1.09 %	0.11 %	<0.05	
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Conclusion	
Acclimation Improves — Behavior — Stress cortisol — Inflammatory response — Mortality	
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