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# Weaning: Does It Have to be Stressful?

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Emmit L. Rawls  
Professor

Tammy L. McKinley  
Extension Specialist

Agricultural Economics



# What Is Preconditioning?

- Preparing calves for next phase of beef production
  - Weaning
    - Separating calves from cows with the least amount of stress possible
  - Health program
    - Preparing calves to withstand potential diseases they will be introduced to during transportation and marketing process and during the future feeding programs (stocker or finishing phase)
  - Feed program
    - Add weight while overcoming the stresses of weaning and health management practices and teaching them to eat from a feed bunk and drink from a water trough

Source: "Preconditioning Feeder Calves Makes Dollars and Sense," Walt Prevatt, Darrell Rankins, and Soren Rodning, Alabama Cooperative Extension

# Why Do We Not Precondition?

- Belief it will reduce income
- Perception of lower sale weight
- Possibility of sickness / death loss
- Lack of adequate facilities
- Do not want to invest the time, effort and money for feed and facilities

# Why Precondition?

- Increased sale weight
- Increased value/price in a group marketing event
- Reduced shrink
- Increased net return due to value of gain exceeding cost of gain

# Why Precondition?

- Calves should withstand marketing and transportation and go on feed quicker
- Incidence of sickness (morbidity) and death loss should be lower
- Feedlot managers and nutritionists have reported that morbidity and death loss of preconditioned cattle is about half that of cattle which have not been preconditioned

# Why Precondition?

- Since morbidity is reduced, feedlot performance is better, carcasses are higher valued and cattle are more profitable

## Comparison of Cattle Receiving Treatment vs. No Treatment at Feedlot on TN Beef Evaluation

	<b>Treatment at feedlot</b>	<b>No Treatment at feedlot</b>
<b>2005-2006</b>		
Average daily gain	3.36	3.63
Net Return to Feeding	- \$16.69	\$34.98
Choice or better	56%	66%
<b>2006-2007</b>		
Average daily gain	2.85	3.45
Net Return to Feeding	- \$15.41	\$57.37
Choice or better	68%	66%

# Calves With a Preconditioning Program

- Gain faster
- Have lower death loss
- Require less feed
- Have lower feed costs
- Reduced sickness and lower treatment cost
- Have fewer days on feed
- Have low interest and yardage cost
- Have lower cost of gain

# Weaning Methods

- Total separation in a secure pen or barn
- Place a dry cow in pen with calves
- Feed cows & calves in a pen then remove cows
- Wean on the signs of the Zodiac
- Fenceline wean so the calves and cows can touch noses
- Use of plastic weaning devices – Two-Step

# Research: Two-Step & Fenceline Methods

- Canadian Research
  - 1-2 weeks pre-weaning - place anti-nursing device and put calves on grass as soon as possible
  - Weaning - remove anti-nursing device and wean – remove from cows
  - Behavioral results
    - Calves called 85% less
    - Calves walked 80% less
    - Calves spent 25% more time eating
    - Calves gained 30% more
- University of Missouri
  - 20 years - 4,500 calves weaned via fenceline
    - 4 sick calves & no respiratory disease calves
    - Gained at least 1.5 lbs/day in 1<sup>st</sup> 60 days

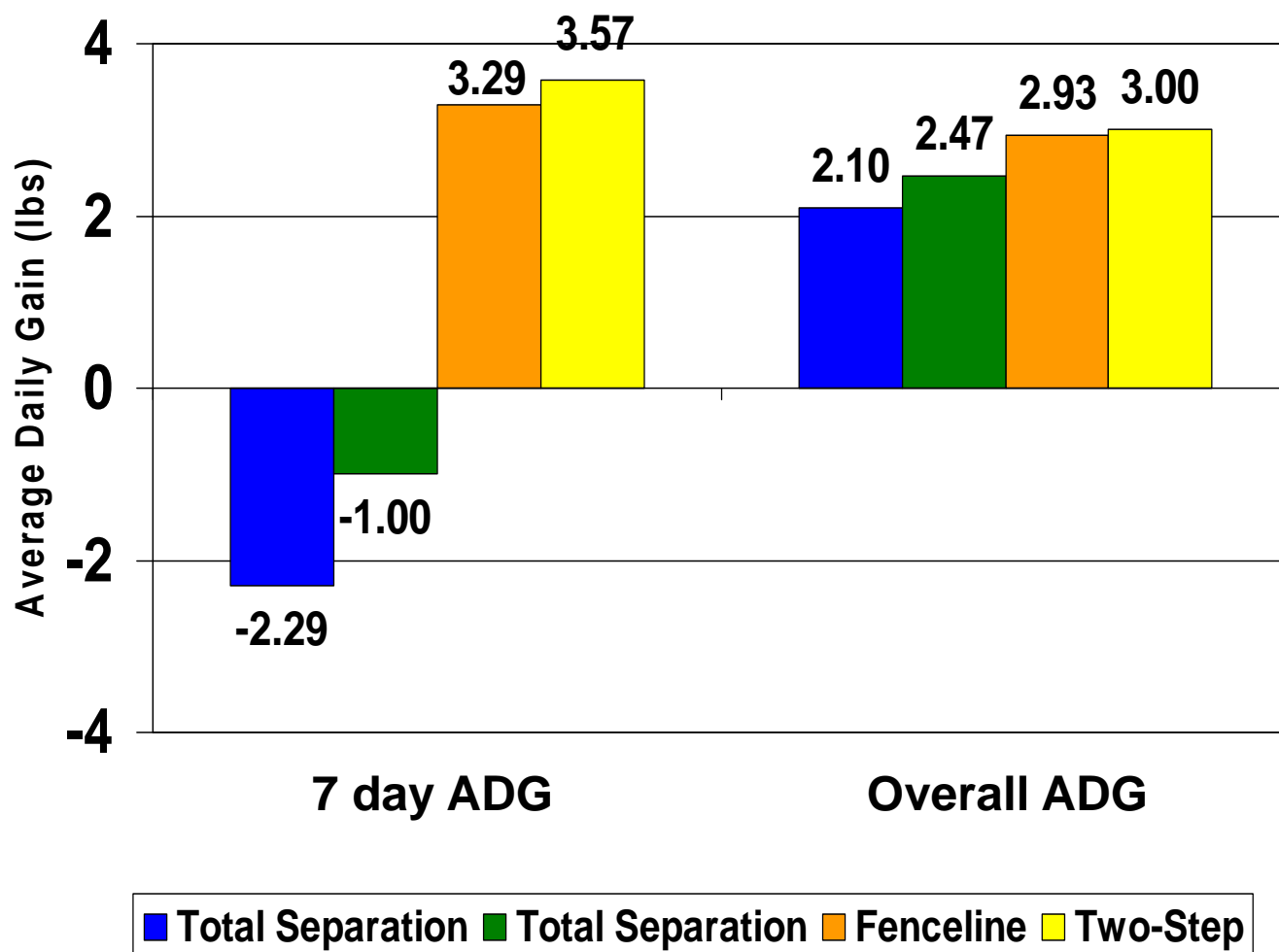
# Lawrence County Demonstration

- Conducted by Calvin Bryant, Extension Agent
- Weaning method comparison
  - Total separation
  - Fenceline weaning
  - Two-Step
- Calves had been on soy hull creep feed
- At weaning, hand fed Co-op 13% high fiber feed at 8-10 lbs per day
  - ½ morning, ½ evening

# Lawrence County Demonstration

<b>Groups</b>	<b>Initial Weight 10/8/05</b>	<b>Weight at 7 days</b>	<b>Gain</b>	<b>Weight at 58 days</b>	<b>Overall Gain</b>
Fenceline	581	604	+23	751	170
Two-step	545	570	+25	719	174
Total separation not de-horned	575	568	-7	718	143
Total separation & dehorned at weaning	629	613	-16	751	122

# Average Daily Gain Comparison Among Groups



# Other Observations from Demonstrations

- When applying anti-nursing devices get calves back on pasture quickly, especially if small calves
- Calf behavior comparison
  - Number of calls per hour in first 24 hours after separation from dam
    - Two-step method = 12 calls per hour
    - Fenceline weaned = 45 calls per hour
    - Demonstration at Bob Tilley operation, 2005

# Other Observations from Demonstrations

- When two-step method was compared with total separation, cows called much less with two-step method
  - Demonstration at Raymond Cooper operation, 2008
- Age of calves affects behavior and performance post-weaning
- If using anti-nursing devices and ball type waterer, remove tension from ball in waterer

# Weaning Methods Research

## Comparison of Average Daily Gain for Two-step Weaning Followed by Fenceline and Total Separation 42 Days Post-weaning

	Weight Gain	ADG
Two-step followed by Fenceline	62.0	1.48
Two-step followed by Total Separation	88.4	2.10

Source: Research by Campistol and Kattesh at Plateau Research and Education Center, Fall 2008

## Comparison of Supplemental Feeding and No Supplemental Feeding Prior to Weaning Followed by Fenceline and Total Separation 42 Days Post-weaning

	Weight Gain	ADG
<b>Supplemental Feeding</b>		
Fenceline	48.0	1.14
Total Separation	64.9	1.54
<b>No Supplemental Feeding</b>		
Fenceline	50.4	1.20
Total Separation	39.8	0.94

Source: Research by Campistol and Kattesh at Plateau Research and Education Center, Fall 2009

# The Take Home Message

- Weaning can be the most stressful part of a preconditioning program
- Use of lower stress methods – fenceline or two-step – can greatly reduce the stress and often results in greater gains than total separation
- Calves weaned and fed 1.5-2% of body weight for 45-60 days will gain enough to pay for feed and vaccination materials unless there is a major break in market price

# The Take Home Message

- Feeding calves for 1 to 2 weeks prior to weaning results in them adjusting to feed and gaining more than calves not accustomed to feed prior to weaning
- In cases where the two-step method or supplemental feeding prior to weaning are used, total separation results in greater weight gains than if calves are left in close proximity to their dams

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# The Take Home Message

- Buyers are demanding and paying for preconditioned cattle
- A good marketing program such as a preconditioned graded sale is needed to capture the value which has been created through a good preconditioning program

# Questions?



# Calf Value & Cost to Precondition

- Calf beginning value = \$687.50
  - 550 lbs M-1 steer valued on last week's market @ \$125/cwt
- Cost to precondition for 60 days
  - Health program = \$10
    - Two rounds of vaccinations, dewormer & implant
  - Feed = \$66
    - Fed 2% of body weight = 11 lbs/day
    - Feed cost = \$200/ton
  - Interest = \$7.91
    - 7% rate for 60 days
  - Total cost = \$83.91

**Breakeven Price at Varying ADG, Beginning Weight 550 lbs,  
Fed 2% Body Weight for 60 days**

<b>ADG</b>	<b>COG</b>	<b>Ending Weight</b>	<b>B/E Price</b>
1.0	139.85	610	126.46
1.5	93.23	640	120.53
2.0	69.93	670	115.14
2.5	55.94	700	110.20
3.0	46.62	730	105.67

**Comparison of Cost of Gain with Varying Feed Cost and ADG, Beginning Weight 550 lbs, Fed 2% Body Weight for 60 days**

	<b>Feed Cost (\$/ton)</b>					
<b>ADG</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>175</b>	<b>200</b>	<b>225</b>
1.0	84.85	98.60	112.35	126.10	139.85	153.60
1.5	56.57	65.73	74.90	84.07	93.23	102.40
2.0	42.43	49.30	56.18	63.05	69.93	76.80
2.5	33.94	39.44	44.94	50.44	55.94	61.44
3.0	28.28	32.87	37.45	42.03	46.62	51.20

# Value of Gain at Various Beginning and Ending Prices

M-1 Steers - Begin @ 550 lbs, Market @ 670 lbs

<b>Sell at:</b>	<b>\$130</b>	<b>\$125</b>	<b>\$120</b>	<b>\$115</b>	<b>\$110</b>	<b>\$105</b>
Beginning at \$140	84.17	56.25	28.33	0.42	-27.50	-55.42
Beginning at \$135	107.08	79.17	51.25	23.33	-4.58	-32.50
Beginning at \$130	130.00	102.08	74.17	46.25	18.33	-9.58
Beginning at \$125	152.92	125.00	97.08	69.17	41.25	13.33
Beginning at \$120	175.83	147.92	120.00	92.08	64.17	36.25
Beginning at \$115	198.75	170.83	142.92	115.00	87.08	59.17