Beef Cattle Market Outlook and Strategies

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UK Agricultural Economics
Thoughts on Market

• Hard to justify summer slip in the market
• Market fundamentals
  – Flooding issues / slowing gains – overreaction, ASF, stable cow numbers, solid macroeconomy, trade issues, corn crop, non-meat competition
• I expect futures to have support here
  – Famous last words?
Nearby CME© Feeder Cattle Futures

$ per cwt

$300
$250
$200
$150
$100
$50
$0

KY Feeder Steers M/L #1-2
550# Steers ($ per cwt)

Source: USDA-AMS, LMIC, and author calculations
KY Cull Cow Prices
Boning 80-85% ($ per cwt)

Source: USDA-AMS, LMIC, and author calculations
<table>
<thead>
<tr>
<th>Country</th>
<th>2017 (1,000 lbs)</th>
<th>2018 (1,000 lbs)</th>
<th>Change from 17’ to 18’</th>
<th>% of US Beef Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>826,004</td>
<td>880,665</td>
<td>+ 7%</td>
<td>3.3%</td>
</tr>
<tr>
<td>South Korea</td>
<td>472,729</td>
<td>638,186</td>
<td>+35%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Mexico</td>
<td>419,349</td>
<td>448,796</td>
<td>+7%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>335,705</td>
<td>307,270</td>
<td>-1%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Canada</td>
<td>309,138</td>
<td>299,880</td>
<td>-3%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Total Exports</td>
<td>2,859,687</td>
<td>3,155,370</td>
<td>+10%</td>
<td>11.7%</td>
</tr>
</tbody>
</table>

Source: USDA-ERS, Livestock Marketing Information Center, and author calculations
US BEEF AND VEAL EXPORTS
Carcass Weight, Monthly

Data Source: USDA-ERS & USDA-FAS
Livestock Marketing Information Center
US Beef Cow Inventory
1920 to 2019

Data Source: USDA-NASS
Livestock Marketing Information Center
Jan Heifer Retention as % of Beef Cow Inventory
Kenny’s Fall Planning Prices

• Can’t justify current calf prices with spring board around $140
  – But, I do think futures are oversold
• I like 550 lb steers in upper $130’s to $140 by fall, into the $150’s by summer
• 850 lb steer likely low-mid $130’s by fall
Cow-calf Considerations
Steers vs. Bulls at VA Auctions
(2009 to 2018)
Steers vs. Bulls

• 550# steers outsold 550# bulls by $15.62 per cwt over last 10 years
• This is $85.91 per head
• How many additional lbs would be needed to outweigh this?
  – At $1 per lb, around 86 lbs
  – $0.80 per lb, around 107 lbs
• Implants provide an option as well
Don’t be afraid to cull hard

• Consider two cows:
  – Cow 1 weans 600 lb calf each year
  – Cow 2 weans 400 lb calf each year
• Were both these cows making us money in 2014 and 2015?
• What about now?
• Our culling criteria should change with the market?
What do late calving cows cost?

- Weaning weight = lbs = $
  - Likely to calve late again
- Each cycle missed is 21 days and probably 40+ lbs
  - Likely worth $30 to $40 in revenue
- Yards like to keep weight range 50-75 lbs
  - More important on smaller groups
- Fewer late calving cows = smaller lots
  - Total impact likely $150+ per calf (weight and lot size)
Lot Size Impacts
(Halich and Burdine, 2015)

Data: Bluegrass Stockyards CPH Sales 2005-2012
Should we consider cow size in our culling criteria?
What Costs Increase with Cow Size?

- Winter feed (hay)
- Pasture
- Vet / medicine
- Breeding
- Mineral
- Trucking
- Marketing
- Breeding stock depreciation
## Estimated Cost Differences by Cow Weight

<table>
<thead>
<tr>
<th></th>
<th>1,000 lb cow</th>
<th>1,200 lb cow</th>
<th>1,400 lb cow</th>
<th>1,600 lb cow</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable Costs</strong></td>
<td>$339</td>
<td>$386</td>
<td>$431</td>
<td>$478</td>
</tr>
<tr>
<td><strong>Total Costs</strong></td>
<td>$507</td>
<td>$564</td>
<td>$621</td>
<td>$679</td>
</tr>
<tr>
<td><strong>Marginal Increase</strong></td>
<td>-------</td>
<td>$57</td>
<td>$57</td>
<td>$58</td>
</tr>
</tbody>
</table>

Note: For depreciation purposes, cows are valued initially at $1,467, $1,600, $1,733 and $1,867 respectively. Costs exclude overhead, interest on land, and labor.
## Value of Additional 50 Lbs of Weaning Weight

<table>
<thead>
<tr>
<th>Price Slide</th>
<th>Baseline: 550 lb calf Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$1.20</td>
</tr>
<tr>
<td>$10 per cwt</td>
<td>$30</td>
</tr>
<tr>
<td>$15 per cwt</td>
<td>$15</td>
</tr>
<tr>
<td>$20 per cwt</td>
<td>($0)</td>
</tr>
<tr>
<td>$25 per cwt</td>
<td>($15)</td>
</tr>
</tbody>
</table>
# Feeder Cattle Frame Scores

Weight range to reach 0.5” backfat

<table>
<thead>
<tr>
<th></th>
<th>Large Frame</th>
<th>Medium Frame</th>
<th>Small Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Steers</strong></td>
<td>&gt; 1,250 lbs</td>
<td>1,100 to 1,250 lbs</td>
<td>&lt; 1,100 lbs</td>
</tr>
<tr>
<td><strong>Heifers</strong></td>
<td>&gt; 1,150 lbs</td>
<td>1,000 to 1,150 lbs</td>
<td>&lt; 1,000 lbs</td>
</tr>
</tbody>
</table>
Stocker Considerations
200 Day Stocker Program (from spring)

• Place 450# steer in spring @ $1.65*
• 750# steer in fall @ $1.40
  – $8 under fall board
• 0.75 acre per head
• 1.5 lbs gain per day through season
• Vet / med: $25
• Interest: 6.5%
• Deathloss: 2%
# 200 Day Stocker Budget

<table>
<thead>
<tr>
<th>Sales</th>
<th># units</th>
<th>unit</th>
<th>price per unit</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeder</td>
<td>750</td>
<td>lbs</td>
<td>$1.40</td>
<td>$1,050.00</td>
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</table>

<table>
<thead>
<tr>
<th>Expenses</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stocker</td>
<td>450</td>
<td>lbs</td>
<td>$1.65</td>
<td>$742.50</td>
</tr>
<tr>
<td>Pasture Cost</td>
<td>0.75</td>
<td>acre</td>
<td>$35.00</td>
<td>$26.25</td>
</tr>
<tr>
<td>Pasture Rent</td>
<td>0.75</td>
<td>acre</td>
<td>$40.00</td>
<td>$30.00</td>
</tr>
<tr>
<td>Mineral</td>
<td>0.25</td>
<td>lbs / day</td>
<td>$0.40</td>
<td>$20.00</td>
</tr>
<tr>
<td>Vet / Med</td>
<td>1</td>
<td>head</td>
<td>$25.00</td>
<td>$25.00</td>
</tr>
<tr>
<td>Sale Expenses</td>
<td>1</td>
<td>head</td>
<td>$40.00</td>
<td>$40.00</td>
</tr>
<tr>
<td>Hauling</td>
<td>1</td>
<td>head</td>
<td>$10.00</td>
<td>$10.00</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>head</td>
<td>$10.00</td>
<td>$10.00</td>
</tr>
<tr>
<td>Interest</td>
<td>6.5%</td>
<td>rate</td>
<td></td>
<td>$30.05</td>
</tr>
<tr>
<td>Death loss</td>
<td>2.0%</td>
<td></td>
<td></td>
<td>$15.15</td>
</tr>
</tbody>
</table>

| Total Expenses |         |           |                | $948.95   |

| Return to L, K, and M |         |           |                | $101.05   |
Understand the Sensitivities...

- $5 per cwt change in sale price - $38
  - $11 per cwt drop = breakeven!
  - Nearly 2:1 impact on target purchase price

- $5 per cwt change in calf value - $23
  - What percent of costs are incurred on day 1?

- 1% change deathloss - $8
  - Remember this one is chunky!

- 1% change in interest rate - $5
Thoughts on Strategy

• Start by knowing cost and projecting sale price
• Have target purchase price and look to place based on that
  – Be opportunistic
• Cover downside, then worry about upside!
• Forward price if you like the basis
  – Then just worry about production risk
• Don’t do anything you don’t understand
Contact Information

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