Too Much Quality?

John F. Stika, Ph.D.
Certified Angus Beef LLC
Wooster, OH
NON-PROFIT
owned by the family farmers and ranchers of the American Angus Association®

19,000+
licensed packers, processors, distributors, retailers and restaurants in
50 COUNTRIES

155 TEAM MEMBERS
solely focused on promoting this one brand

OVER 1.2 BILLION
pounds sold globally each year

5.5 MILLION
head certified annually

$75 MILLION
paid to cattlemen each year

$75 MILLION
paid to cattlemen each year
Marbling & USDA Quality Grades

Reproductions courtesy of the NCBA and U. S. Department of Agriculture, @NLSMB.
What is the IDEAL Quality Grade Mix?

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>% Prime</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>8.6</td>
<td></td>
</tr>
<tr>
<td>% Upper 2/3 Choice</td>
<td>24</td>
<td>21</td>
<td>27</td>
<td>31</td>
<td>35</td>
<td>32.5</td>
<td></td>
</tr>
<tr>
<td>% Low Choice</td>
<td>40</td>
<td>34</td>
<td>32</td>
<td>33</td>
<td>35</td>
<td>39.3</td>
<td></td>
</tr>
<tr>
<td>% Select</td>
<td>29</td>
<td>38</td>
<td>35</td>
<td>31</td>
<td>25</td>
<td>16.3</td>
<td></td>
</tr>
<tr>
<td>% Standard/No Roll</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3.3</td>
<td></td>
</tr>
</tbody>
</table>

Source: National Beef Quality Audits
USDA AMS
*Data through week beginning 7/22/19
Dramatic Improvement In Quality Grade

USDA Choice + Prime Grading Percentage Trend

- Today, represents 8% of all graded carcasses
- Consistently only 2-3% prior to 2013

Source: U.S. Department of Agriculture (USDA)

*Data through week beginning 7/15/19
Source: U.S. Department of Agriculture (USDA)
*Data through week beginning 7/15/19
DOUBLED Acceptance Rate Over the last 10 Years

Source: Certified Angus Beef LLC (2007 Yield Grade change, 2014 HCW change)
*Projected
An Industry Shift From Commodity Towards Quality

%Select = USDA Reported
%CAB® = Total CAB® Certified Head Count/US Fed Steer and Heifer Harvest
Quality Grade Improvement = Major Production Shift

<table>
<thead>
<tr>
<th>Grade</th>
<th>2010</th>
<th>2019*</th>
<th>Unit Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prime</td>
<td>13.0</td>
<td>35.9</td>
<td>+22.9</td>
<td>+176%</td>
</tr>
<tr>
<td>Premium Choice</td>
<td>51.1</td>
<td>97.8</td>
<td>+46.7</td>
<td>+91%</td>
</tr>
<tr>
<td>All Choice</td>
<td>254.3</td>
<td>300.4</td>
<td>+46.1</td>
<td>+18%</td>
</tr>
<tr>
<td>Select</td>
<td>124.4</td>
<td>68.3</td>
<td>-56.1</td>
<td>-45%</td>
</tr>
<tr>
<td>Other</td>
<td>22.4</td>
<td>13.9</td>
<td>-8.5</td>
<td>-38%</td>
</tr>
</tbody>
</table>

*Estimation based on fed steer and heifer harvested head multiplied by average fed hot carcass weight multiplied by QG distribution
Source: USDA AMS

So, how have prices adjusted?

*Data through week beginning 7/15/19
Cutout Spreads Relative to USDA Choice + Prime Production

*Data through week beginning 7/15/19

*CH-SE  
*PR-CH  
*Weekly CH+PR Production

+25%
With An Economic Signal For More

Source: Urner Barry & Certified Angus Beef LLC

*Projected
<table>
<thead>
<tr>
<th>2019*</th>
<th>Prime</th>
<th>CAB°</th>
<th>Choice</th>
<th>Select</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutout, $/cwt</td>
<td>235.06</td>
<td>227.16</td>
<td>218.95</td>
<td>208.88</td>
</tr>
<tr>
<td>Spread, $/cwt</td>
<td>7.90</td>
<td>8.21</td>
<td>10.07</td>
<td></td>
</tr>
</tbody>
</table>

*Source: USDA AMS (Pr, Ch, Se) and Urner Barry Yellow Sheet (CAB°)*

*Data through week beginning 7/15/19*

*Assuming 900 lb HCW & 2019* cutout values
Both spreads have dramatically increased, even ahead of the recent market disruption.
Grid Marketing Has Sent the Signal for Quality

Trend in Fed Cattle Marketing Methods

Source: U.S. Department of Agriculture (USDA), CattleFax

*USDA 5-Area: TX, OK, NM, KS, NE, CO, IA, MN
Grid Premiums and Discounts for Quality Grade

Source: USDA AMS, LM_CT169
*Data through week beginning 8/12/19
Quality Signal Within Grid Yield Grade Discounts

Source: USDA AMS, LM_CT169

*Data through week beginning 8/12/19
An Industry Working to Align Around a Common Goal
More Than Ever Before
Angus Genetic Trends for Carcass Traits

Source: American Angus Association, 2019
Genetics Have Allowed Cattlemen to Raise Cattle that GRADE & PERFORM

<table>
<thead>
<tr>
<th>Grade Type</th>
<th>Finished Weight (lbs.)</th>
<th>Average Daily Gain (lbs./d)</th>
<th>Feed to Gain</th>
<th>Cost of Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Grading (90% Choice and Prime; 45% CAB®)</td>
<td>1398 (166 DOF)</td>
<td>3.53</td>
<td>5.94</td>
<td>$0.70</td>
</tr>
<tr>
<td>Low Grading (60% Choice and Prime; 13% CAB®)</td>
<td>1354 (152 DOF)</td>
<td>3.58</td>
<td>5.85</td>
<td>$0.72</td>
</tr>
</tbody>
</table>

Steers Only
616 Pens, 136K head
Conventionally-raised
750-850 lb. Placement
June-Oct '17 closeout
Top 3 Reasons Rejected Carcasses Don’t Qualify

1. **92.6% - Insufficient Marbling**
   - Modest or higher degree of marbling
   - Medium to fine marbling texture
   - Less than 30-months of age ("A" maturity)
   - 10.0–16.0 in² REA
   - HCW of 1,050 lb. or less
   - Less than 1.0 inch backfat
   - No neck hump exceeding 2.0 inches
   - Moderately thick or thicker muscling
   - Practically free of capillary rupture
   - No dark cutters

2. **11.2% - Ribeye Area Too Large**

3. **9.1% - Hot Carcass Weight to Heavy**

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Science-based Specifications
To ensure completely unbiased approval, Angus-type cattle are evaluated by the USDA, not in-house graders or plant employees. In Canada, brand standards are evaluated by the Canadian Beef Grading Agency.
Something For Us All To Keep In Mind

The only sustainable flow of dollars from which we each can continue to build our business comes from consumers.
### Consumer Beef Purchase Drivers

Taste and Product Quality Attributes Drive Consumer Purchases

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Extremely/Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great tasting</td>
<td>88%</td>
</tr>
<tr>
<td>A good value for the money</td>
<td>81%</td>
</tr>
<tr>
<td>Extremely safe to eat</td>
<td>77%</td>
</tr>
<tr>
<td>Feel good about eating</td>
<td>72%</td>
</tr>
<tr>
<td>Balance of taste and nutrition</td>
<td>72%</td>
</tr>
<tr>
<td>Delivers good results consistently</td>
<td>69%</td>
</tr>
<tr>
<td>Options are quick and easy to prepare</td>
<td>67%</td>
</tr>
<tr>
<td>Know how to prepare well</td>
<td>66%</td>
</tr>
<tr>
<td>Provides energy and fuel</td>
<td>65%</td>
</tr>
<tr>
<td>Always tender</td>
<td>64%</td>
</tr>
<tr>
<td>Easy to pick the right cuts</td>
<td>64%</td>
</tr>
<tr>
<td>Great starting point for meal options</td>
<td>63%</td>
</tr>
<tr>
<td>Smart choice</td>
<td>63%</td>
</tr>
<tr>
<td>Great source of protein</td>
<td>63%</td>
</tr>
<tr>
<td>Food you crave</td>
<td>62%</td>
</tr>
<tr>
<td>Many lean cuts available</td>
<td>60%</td>
</tr>
</tbody>
</table>

Source: Consumer Beef Index
Consumer satisfaction improves as marbling increases

Source: Emerson et al., 2013

a–e Probabilities that do not share a common superscript letter differ, $P < 0.05$
Annual U.S. Retail Beef Demand Index

Beef Demand was cut in half!

Long-term Decline in Beef Demand Cost Slaughter and Feeder Cattle Producers

$13.3 Billion

Source: U.S. Department of Agriculture (USDA), BLS, Kansas State University

*2018 CattleFax Projection
# National Beef Quality Audit

## Quality Challenges – Ranked According to Priority

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<tbody>
<tr>
<td>External Fat</td>
<td>Overall Uniformity</td>
<td>Overall Uniformity</td>
<td>Traceability</td>
<td>Food Safety</td>
<td>Food Safety</td>
</tr>
<tr>
<td>Seam Fat</td>
<td>Overall Palatability</td>
<td>Overall Palatability</td>
<td>Overall Uniformity</td>
<td>Eating Satisfaction</td>
<td>Eating Satisfaction</td>
</tr>
<tr>
<td>Overall Palatability</td>
<td>Marbling</td>
<td>Marbling</td>
<td>Marbling</td>
<td>Eating Satisfaction</td>
<td>Eating Satisfaction</td>
</tr>
<tr>
<td>Tenderness</td>
<td>Tenderness</td>
<td>Tenderness</td>
<td>Instrument Grading</td>
<td>How and Where Cattle were Raised</td>
<td>Lean Fat and Bone Weight and Size</td>
</tr>
<tr>
<td>Overall Cutability</td>
<td>External and Seam Fat</td>
<td>Reduced Quality Due to Use of Implants</td>
<td>Market Signals</td>
<td>Lean Fat and Bone Weight and Size</td>
<td>How and Where Cattle were Raised</td>
</tr>
<tr>
<td>Marbling</td>
<td>Cut Weights</td>
<td>External Fat</td>
<td>Segmentation</td>
<td>Cattle Genetics</td>
<td>Visual Characteristics</td>
</tr>
</tbody>
</table>

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**Certified Angus Beef Quality Forum**
Annual U.S. Retail Beef Demand Index

**Beef Demand was cut in half!**

**Beef Demand Stabilized & Growing**

Source: U.S. Department of Agriculture (USDA), BLS, Kansas State University
*2018 CattleFax Projection*
Certified Angus Beef® brand Sales

Annual Sales (million lbs.)

FY 2018
- Foodservice: 40.6%
- International: 33.9%
- Retail: 16.9%
- Misc: 8.6%

1988
- 71 million lbs.

1998
- 411 million lbs.

2008
- 634 million lbs.

2018
- 1,212,000,000 lbs.

Fiscal Year
Annual Average Cutout Values

*Data through week beginning 7/15/19
Consumer spending decisions are based on a Price:Value relationship.
Importance of the Price:Value Relationship
Comparative Retail Pricing Across Proteins

Source: USDA Economic Research Service, 2018

2000
Beef was priced
7% > Pork
78% > Chicken

2018
Beef was priced
52% > Pork
204% > Chicken

Source: USDA Economic Research Service, 2018
Deliciousness Is What Matters Most

Food of the future may need to be more sustainable, nutritious and biodiverse—but none of that will appeal if it doesn’t taste good

By Bee Wilson
July 25, 2019 11:25 am ET

For all of our modern food quandaries, delicious still wins. Sustainability matters, for sure, but what really speaks to us most about food remains the pleasure that it gives to us. It’s a shame that we spend so much of our lives denying this simple truth.
The VALUE Consumers are Demanding for the PRICE

...that the end product we deliver is not meat, but rather TASTE.

People will PAY MORE for greater satisfaction ...

...and taste is their measure of satisfaction.
If beef demand had not grown the last 20 years:
- Fed-cattle would be worth $20/cwt less ($270.00/head)
- Calf prices would be $50/cwt lower

$60 Billion Increase in Consumer Spending

Source: U.S. Department of Agriculture (USDA)
*2019 CattleFax Projection
Demand Drivers of Quality in the Future

1. Better Product = More Consumer Confidence = Stronger Demand
2. Bigger supplies are allowing broader customer access
Demand Drivers of Quality in the Future

3. Ground beef is no longer quality grade neutral
4. Value of marbling beyond middle meats/steaks

Certified Angus Beef® 3.9% premium to Choice
USDA Choice 5.3% premium to USDA Select

*2019 Urner Barry data through week beginning 7/29/19
Demand Drivers of Quality in the Future

More than 30% of brand sales growth has come from International Markets the last two years.
6. Risk management features (Greater marketing flexibility)

**3 Year Average Choice-Select Spread**

![Graph showing 3 Year Average Choice-Select Spread](image1)

**Prices Received for Corn by Month – United States**

![Graph showing Prices Received for Corn by Month](image2)
Percent of Boxed Beef Sales by Grade

Source: USDA AMS Comprehensive Cutout
Declining Production of USDA Select Grade Beef

“The trending decline in USDA Select will likely continue and could represent 5% or less of graded beef tonnage by 2025.”
Summary Points

1. Increased quality translates to increased demand.
2. Improvement in marbling has been intentional and in response to market signals.
3. In light of significant production increases, economic signals continue to support quality.
4. Genetics are a key factor and can allow quality production with little to no extra cost.
5. Many demand drivers support a quality-focus moving forward.
Too Much Quality?

No