Consumer Insights

New Orleans, January 30, 2019
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Economic Outlook
2019 growth is projected to slow. Employment and Wages are supportive; investment is uncertain.

BEEF & PROTEIN SUPPLIES
2019 beef consumption is expected to increase

Source: USDA WASDE, December 11, 2018
2019 meat & poultry consumption is projected to be record-high

U.S. Per Capita Meat & Poultry Consumption

Source: USDA WASDE, December 11, 2018
THE CHANNEL PERSPECTIVE:
BEEF AT RETAIL AND FOODSERVICE
2018 retail Beef demand has been strong!
Even November out-performed

Chart 1: U.S. Retail Total Beef Demand Index

2018 vs. 2012: +15%
2018 vs. 2017: +6%

Source: Tonsor, Schroeder, Creating and Assessing Candidate Food Service and Retail Beef Demand Indices, January 2017. IRI/Freshlook, Total US MULO ending 11/26/18; Categorized by VMMeat System
2018 was an excellent year for Beef at retail. More lower-value cuts were sold as Ground.

Retail Beef Sales: 2018 vs. 2017 (Jan-Nov)

*Chuck, Round, Shoulder, Minor Primals
Source: IRI/Freshlook, Total US MULO ending 11/26/18; Categorized by VMMeat System
Beef volume at foodservice was steady in 2018, despite the challenging year for restaurants.

Change in Beef Pounds
In M Lbs.

2015  2016  2017  2018

7,737  7,816  8,037  8,028

2018 Annual Total, In B Lbs.

- Ground Beef: 64%
- Pre-cut Steaks: 13%
- Roasts: 11%
- Pre-cooked Roast: 4%
- Other Beef: 6%
- Ribs: 2%

8.028B Lbs.

*At the operator purchase, or distributor sales level.
Source: 2018 Beef at Foodservice Volumetric Study, Technomic, Inc.
Importance of steak on the menu: Operators say steak...

- 72% Drives check average (+19)
- 65% Can make a successful LTO (+20)
- 62% Increases traffic (+17)
- 57% Brings in bigger parties (+19)
- 49% Eliminates the “veto vote” (+21)

Source: 2018 Beef at Foodservice Volumetric Study, Technomic, Inc.
2019 question marks...

- Overall economy
  - Uncertainty
- Total protein supplies
  - Exports/Imports
- Competitive protein prices
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Consumer Attitudes
Perceptions

Two thirds of consumers are positive towards beef overall, with few feeling negative; however, beef trails chicken

Overall Beef Perceptions

Overall Chicken Perceptions

Source: Consumer Beef Tracker
The majority of consumers are eating beef weekly.
Future Consumption

The top reason to eat more beef, by far, is taste

Top Reasons to Eat More Beef

- You enjoy the taste of beef: 55%
- Beef is my #1 protein choice: 29%
- A beef meal is quick and easy to prepare: 23%
- Grilling more often: 22%
- Adding protein to your diet: 22%
- Discovering new beef recipes: 20%

Source: Consumer Beef Tracker
The reasons for eating less beef are related to health and price.

Top Reasons to Less More Beef

- Other meats are healthier: 32%
- Price is too expensive: 31%
- Beef has too much fat: 31%
- Concerned beef will negatively impact long-term health: 24%
- Cutting back due to health conditions such as heart disease, diabetes, etc.: 24%

Source: Consumer Beef Tracker
Beef performs on par or greater than chicken when it comes to top consideration factors such as taste, preparation, and experience, but falls short on fit with budget.

Source: Consumer Beef Tracker

<table>
<thead>
<tr>
<th>Consideration Factor</th>
<th>Is Great Tasting</th>
<th>Know How to Prepare It</th>
<th>Fits My Budget</th>
<th>Is Safe to Eat</th>
<th>Is a Very Pleasurable Eating Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef</td>
<td>86%</td>
<td>82%</td>
<td>79%</td>
<td>79%</td>
<td>77%</td>
</tr>
<tr>
<td>Chicken</td>
<td>83%</td>
<td>81%</td>
<td>66%</td>
<td>71%</td>
<td>80%</td>
</tr>
<tr>
<td>Beef</td>
<td>81%</td>
<td>82%</td>
<td>81%</td>
<td>73%</td>
<td>79%</td>
</tr>
<tr>
<td>Chicken</td>
<td>81%</td>
<td>82%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
• Production Perceptions for Beef and Chicken are on a similar plateau
For the most part, the majority of consumers trust the beef industry's practices, with another set of consumers who are also on the fence.

### Top Trust Metrics

- **Beef is nutritious**: 69%
- **Beef is safe to eat**: 66%
- **Protocols to prevent diseases in beef are followed**: 54%
- **The safety of beef is continually researched**: 53%
- **Cattle health is a priority**: 52%
- **Cattle are given room to roam**: 51%
- **Beef does not negatively impact your long-term health**: 51%
- **Sanitation guidelines when processing/packaging meat**: 51%
- **Environmental practices are continuously improving**: 48%

Source: Consumer Beef Tracker
Awareness

Compared to other higher budget brands, BIWFD performs well

### Comparison of Aided Awareness

<table>
<thead>
<tr>
<th>Brand</th>
<th>Awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef. It’s What’s For Dinner</td>
<td>42%</td>
</tr>
<tr>
<td>McDonald’s. I’m lovin’ it</td>
<td>65%</td>
</tr>
<tr>
<td>Arby’s. We Have the Meats</td>
<td>57%</td>
</tr>
<tr>
<td>Papa John’s. Better Ingredients, Better Pizza</td>
<td>54%</td>
</tr>
<tr>
<td>Chick-fil-A. Eat Mor Chikin</td>
<td>50%</td>
</tr>
<tr>
<td>Avocados from Mexico</td>
<td>30%</td>
</tr>
<tr>
<td>Pork. Be Inspired</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: Consumer Beef Tracker
Consumers and Beef Recalls
Background

Ground beef recalls for Salmonella:

- October 4, 2018
- December 4, 2018
“Is Safe to Eat” Consideration & Agreement

Safety consideration peaked in October, but has since declined slightly; beef safety agreement has remained steady.

Consider Safety of Protein

<table>
<thead>
<tr>
<th>Month</th>
<th>July - Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>77%</td>
<td>81%</td>
<td>79%</td>
<td>76%</td>
</tr>
</tbody>
</table>

Agree Beef is Safe

<table>
<thead>
<tr>
<th>Month</th>
<th>July - Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>73%</td>
<td>70%</td>
<td>72%</td>
<td>73%</td>
</tr>
</tbody>
</table>

T2B Consumer consideration for protein “Is safe to eat”

% Consumers who score beef 70-100

Source: Consumer Beef Tracker
Across safety trust metrics, beef has seen only a small decline with the recalls in October and has since returned to previous levels.

The safety of beef is continually researched and monitored

- July - Sept: 55%
- Oct: 50%
- Nov: 54%
- Dec: 57%

Beef is safe to eat

- July - Sept: 68%
- Oct: 64%
- Nov: 67%
- Dec: 67%

Sanitation guidelines followed when processing and packaging meat

- July - Sept: 52%
- Oct: 49%
- Nov: 51%
- Dec: 53%

Source: Consumer Beef Tracker
Consumer Food Safety Grades (A or B)

October recalls impacted consumer perceptions of food safety when it came to ground beef

Fresh hamburger/Ground beef

<table>
<thead>
<tr>
<th>Month</th>
<th>July - Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh beef</td>
<td>69%</td>
<td>63%</td>
<td>65%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Fresh Beef Steaks & Roasts

<table>
<thead>
<tr>
<th>Month</th>
<th>July - Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh beef</td>
<td>69%</td>
<td>69%</td>
<td>73%</td>
<td>64%</td>
</tr>
</tbody>
</table>

Source: Consumer Beef Tracker
Consumer concern for beef safety remained lower, and more consistent over time compared to fresh chicken and vegetables.
E. coli and Salmonella, while top of mind for consumers, did not change through July and September to October to December

Source: Consumer Beef Tracker
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Red Meat Messaging
Background & Methodology

• Total Sample N=1092

OBJECTIVES:
• Protein Perceptions
• Dietary recommendations consumers most likely to follow
• Educating consumers on red meat
• Diet Perceptions

Screening Criteria

18 or older
Beef Eaters
No negative perception of meat

Source: Defining Red Meat Study October 2018
Being high in protein and having great taste/flavor are the most mentioned positive associations consumers have with red meat.

Positive Associations

Taste/Flavor: 18%
Filling/Hearty: 11%
Natural/Organic: 6%
Vitamins/Nutrients: 4%
Versatile: 4%
Lean or low in fat: 4%
Iron: 3%

Protein: 20%

Source: Defining Red Meat Study October 2018 A5. First, please list all of the positive terms/phrases that you see or hear used to describe red meat.
Negative associations with red meat revolved around health aspects with 19% of consumers not being able to think of anything negative.

- Unhealthy: 12%
- Bad for heart: 10%
- High in cholesterol: 9%
- Cancer: 3%
- Don't know/None: 19%

Steak and Ground Beef have the strongest association with Red Meat while Poultry and Fish have a strong tie to Lean Meat.

**Lean Meat Protein Associations**
- **Steak**: 14%
- **Ground Beef**: 18%
- **Lamb**: 48%
- **Pork**: 49%
- **Bacon**: 15%
- **Sausage**: 11%
- **Chicken**: 79%
- **Turkey**: 81%
- **Fish**: 55%

**Red Meat Protein Associations**
- **Steak**: 88%
- **Ground Beef**: 78%
- **Lamb**: 32%
- **Pork**: 24%
- **Bacon**: 23%
- **Sausage**: 21%
- **Chicken**: 8%
- **Turkey**: 6%
- **Fish**: 6%

Source: Defining Red Meat Study October 2018
## Common Diet Perceptions

Balanced diets have higher ratings of being healthy and delicious

<table>
<thead>
<tr>
<th>Diet</th>
<th>Nutritious</th>
<th>Healthy</th>
<th>Delicious</th>
<th>Protein Packed</th>
<th>Something I crave</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balanced Diet</td>
<td>70%</td>
<td>70%</td>
<td>67%</td>
<td>60%</td>
<td>57%</td>
</tr>
<tr>
<td>Low Carb Diet</td>
<td>44%</td>
<td>54%</td>
<td>35%</td>
<td>43%</td>
<td>23%</td>
</tr>
<tr>
<td>Plant Based Diet</td>
<td>55%</td>
<td>60%</td>
<td>33%</td>
<td>27%</td>
<td>18%</td>
</tr>
<tr>
<td>Mediterranean Diet</td>
<td>51%</td>
<td>53%</td>
<td>49%</td>
<td>47%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Source: Defining Red Meat Study October 2018
Proteins Associated with Diets

Steak and Ground Beef have a clear place in balanced diets

<table>
<thead>
<tr>
<th></th>
<th>Balanced Diet</th>
<th>Low Carb Diet</th>
<th>Mediterranean Diet</th>
<th>Plant Based Diet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicken</td>
<td>75%</td>
<td>65%</td>
<td>50%</td>
<td>14%</td>
</tr>
<tr>
<td>Turkey</td>
<td>70%</td>
<td>63%</td>
<td>37%</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Steak</strong></td>
<td><strong>67%</strong></td>
<td><strong>47%</strong></td>
<td><strong>36%</strong></td>
<td><strong>11%</strong></td>
</tr>
<tr>
<td>Fish</td>
<td>66%</td>
<td>66%</td>
<td>64%</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Ground Beef</strong></td>
<td><strong>63%</strong></td>
<td><strong>41%</strong></td>
<td><strong>28%</strong></td>
<td><strong>12%</strong></td>
</tr>
<tr>
<td>Pork</td>
<td>60%</td>
<td>45%</td>
<td>35%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: Defining Red Meat Study October 2018
Dietary Recommendations that suggested eliminating specific foods underperformed compared to more inclusive recommendations.

Source: Defining Red Meat Study October 2018
MEAT SUBSTITUTES
Foodservice & Retail: Animal Proteins and Beef vs. Substitutes (billion pounds)

Animal Proteins vs. Substitutes

- All Animal Proteins: 23.3; 99.9%
- AP Substitutes: 0.034; 0.1%

Beef vs. Beef Substitutes

- Beef: 14; 99.5%
- Beef Substitutes: 0.07; 0.5%

Sources: Alternative Proteins at Foodservice Study, Technomic, October 2018; Usage and Volumetric Assessment of Beef in Foodservice, Technomic, December 2017; IRI, Refrigerated/Frozen Meat Substitutes, 52 weeks ending 6/16/18; IRI/Freshlook, Total US MULO ending 5/28/18; Categorized by VMMeat System
2019 meat & poultry consumption is projected to be record-high

Source: USDA WASDE, December 11, 2018; Alternative Proteins at Foodservice Study, Technomic, October 2018; IRI Refrigerated and Frozen Meat Substitutes, July 2018
Meat Substitutes and Consumers

Meat Substitutes

- Never tried meat substitutes: 33%
- Tried, but rarely consume: 20%
- Tried & consume at least monthly: 47%

Alternative Proteins at Foodservice, Technomic, October 2018
Items Consumers Eat Instead of Meat

Of the 34% claiming to avoid eating meat monthly, most aren’t replacing meat with traditional meat substitutes

Beans, rice, lentil or grain-based dishes: 55%
Salads: 54%
Pizza without meat toppings: 44%
Vegetable or mushroom-based dishes: 41%
Baked/other potatoes: 38%
Egg-based dishes: 36%
Favorite dishes without meat (e.g. spaghetti): 32%
Meat-less sandwiches or wraps: 29%
Plant-based protein patties, or "meat-like" crumbles: 27%
Nuts: 27%

Source: Consumer Beef Tracker
Reasons for Choosing Meat Substitutes

Most consider meat substitutes specifically due to their healthier perceptions. Based on those who have intentionally avoided eating meat.

- Healthier than meat: 53%
- Taste/flavor you enjoy as much as meat: 35%
- Safer than meat: 29%
- Reduces mistreatment of animals: 28%
- More environmentally friendly: 26%

Source: Consumer Beef Tracker
The majority of meat substitute users still eat beef.
Segmentation
Consumer Segmentation

- Online survey and cluster analysis resulted in six consumer segments.

- Three segments identified as being high opportunity, representing over 70% of older millennial parents

- Ongoing analysis using the Consumer Beef Tracker will further profile the segments to maximize utility

*Cluster analysis or clustering is the task of grouping a set of objects (consumers) in such a way that consumers in the same segment are more similar to each other than to those in other segments.

Source: Segmentation Study – April – July 2018
Common Themes

Several themes are common across all segments:

• Consumers enjoy the taste of beef and consume it regularly
• Children in the household can shift beliefs/aspirations
• Most approach the weekend differently when it comes to food

<table>
<thead>
<tr>
<th>Pillars</th>
<th>PROTEIN IMPORTANCE</th>
<th>BEEF PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TASTE</td>
<td>4.4</td>
<td>82</td>
</tr>
<tr>
<td>STRENGTH</td>
<td>3.8</td>
<td>73</td>
</tr>
<tr>
<td>RESPONSIBLE</td>
<td>3.5</td>
<td>64</td>
</tr>
</tbody>
</table>

Source: Segmentation Study – April – July 2018
## Segment Overview

### Segment Membership

<table>
<thead>
<tr>
<th>Segment</th>
<th>Total Sample</th>
<th>Older Millennials w/ Kids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Food Enthusiasts</td>
<td>16% (n=306)</td>
<td>27% (n=344)</td>
</tr>
<tr>
<td>Disciplined Doers</td>
<td>18% (n=344)</td>
<td>19% (n=419)</td>
</tr>
<tr>
<td>Social Eaters</td>
<td>22% (n=419)</td>
<td>26% (n=219)</td>
</tr>
<tr>
<td>Convenience Seekers</td>
<td>11% (n=219)</td>
<td>8% (n=290)</td>
</tr>
<tr>
<td>Confident Cooks</td>
<td>15% (n=290)</td>
<td>8% (n=348)</td>
</tr>
<tr>
<td>Budget Basics</td>
<td>18% (n=348)</td>
<td>8% (n=348)</td>
</tr>
</tbody>
</table>

### Beef Consumption weekly+

<table>
<thead>
<tr>
<th></th>
<th>At Home</th>
<th>Away From Home</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Food Enthusiasts</td>
<td>76%</td>
<td>53%</td>
</tr>
<tr>
<td>Disciplined Doers</td>
<td>71%</td>
<td>43%</td>
</tr>
<tr>
<td>Social Eaters</td>
<td>80%</td>
<td>56%</td>
</tr>
<tr>
<td>Convenience Seekers</td>
<td>75%</td>
<td>52%</td>
</tr>
<tr>
<td>Confident Cooks</td>
<td>81%</td>
<td>42%</td>
</tr>
<tr>
<td>Budget Basics</td>
<td>77%</td>
<td>40%</td>
</tr>
</tbody>
</table>

Source: Segmentation Study – April – July 2018
## Segment Overview

<table>
<thead>
<tr>
<th>Segment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONVENIENCE SEEKERS</strong></td>
<td>Hectic households who don't enjoy cooking and tend to eat for ease/convenience at home and when dining out. Taste and convenience tend to be greater drivers than health and nutrition.</td>
</tr>
<tr>
<td><strong>CONFIDENT COOKS</strong></td>
<td>Consumers who are more positive about beef with a passion for cooking and preparing meals at home. Highly confident in shopping for and cooking all types of beef.</td>
</tr>
<tr>
<td><strong>BUDGET BASICS</strong></td>
<td>Consumers with simple diets and lower incomes, who prioritize price and taste over nutrition. While favorable towards beef, they prefer simple meals and don’t eat out often.</td>
</tr>
</tbody>
</table>

Source: Segmentation Study – April – July 2018
## Segment Overview

<table>
<thead>
<tr>
<th>Segment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FAMILY FOOD ENTHUSIASTS</strong></td>
<td>Larger, more affluent, active households who strive to be healthy. Enthusiastic about food and the overall meal experience, they eat out often and care more about how food is raised/processed.</td>
</tr>
<tr>
<td><strong>DISCIPLINED DOERS</strong></td>
<td>Well educated consumers who are more conscious about their health. With somewhat limited diets, they have disciplined eating habits and prioritize the nutrition of lean proteins over taste/flavor.</td>
</tr>
<tr>
<td><strong>SOCIAL EATERS</strong></td>
<td>Slightly younger consumers who frequently eat a wide variety of proteins. They enjoy socializing, eating with friends and often eat beef, both at home and when dining out.</td>
</tr>
</tbody>
</table>

Source: Segmentation Study – April – July 2018
THANK YOU

The presentation reflects highlights from several projects. Feel free to reach out to the team for any further questions on any of the topics.

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