“I REALLY DON’T LOOK FOR CERTIFICATIONS, IT ALL HAS TO DO WITH PERSONAL RELATIONSHIPS”: THE CONSTRUCTION OF A MEAT PHILOSOPHY AND INNOVATION ADOPTION BY CULINARY PROFESSIONALS IN THE ROCKY MOUNTAIN REGION

by

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A thesis submitted in partial fulfillment of the requirements for the degree of

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in

Environment and Society

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ABSTRACT

“I Really Don’t Look for Certifications, It All Has To Do With Relationships” :
The Construction of a Meat Philosophy and Innovation Adoption by Culinary Professionals in the Rocky Mountain Region

by

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Utah State University, 2018

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Demand for new methods of beef production is rising due to concern over potential impacts on human health, animal welfare, and the environment. Researchers at Utah State University have developed a method of beef production from cattle finished on tannin-containing legume forages in the Rocky Mountain Region in order to better address those concerns. To ensure success of this product, its demand and marketability needed to be assessed. Food values addressed through new production standards and certifications are communicated through labeling by culinary professionals in the kitchen and behind service counters. This research study utilized qualitative methods to understand how culinary leaders construct meaning regarding non-conventional beef. A discursive analysis of labels, menus, and websites revealed that storytelling and branding are more important than third-party certifications. Thematic analysis of interviews with culinary professionals discovered participants are open to new products but
environmental concern was tempered by concern for pleasing customers and hindered by planning a menu around consistency and quality. This research found that the success of beef from cattle finished on tannin-containing legume forages is dependent on the benefits being communicated in a way that emphasizes authenticity, tradition, and standards of quality necessary for culinary professionals.

(148 pages)
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# CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ABSTRACT</td>
<td>iii</td>
</tr>
<tr>
<td></td>
<td>PUBLIC ABSTRACT</td>
<td>v</td>
</tr>
<tr>
<td></td>
<td>ACKNOWLEDGMENTS</td>
<td>vi</td>
</tr>
<tr>
<td></td>
<td>LIST OF TABLES</td>
<td>ix</td>
</tr>
<tr>
<td></td>
<td>LIST OF DEFINITIONS</td>
<td>x</td>
</tr>
<tr>
<td>1</td>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Finishing cattle on tannin-containing legumes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Theoretical framework</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Thesis purpose, structure, and research questions</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Overall research question</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>References</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>“WE TAKE IT ALL SERIOUSLY SO YOU DON’T HAVE TO” – THE ROLE OF CULINARY PROFESSIONALS IN CONSTRUCTING SUSTAINABLE BEEF ACCEPTANCE AMONG CUSTOMERS</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Abstract</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Theory: Symbolic consumption and boundary objects</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Research question</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Methods</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Analysis</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Results</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Discussion</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Conclusion</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Recommendations for practice</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>References</td>
<td>46</td>
</tr>
<tr>
<td>3</td>
<td>“FROM A CHEF’S PERSPECTIVE, OR WHAT CAN I SELL ON THE MENU?” EXPLORING CULINARY PROFESSIONALS’ ATTITUDES TOWARD NON-CONVENTIONAL BEEF PRODUCTION AND BARRIERS TO ADOPTION</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Abstract</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>Introduction</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Theory: Diffusion of innovation of culinary trends</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Research questions</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Anticipated results</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Methods</td>
<td>59</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------</td>
<td></td>
</tr>
<tr>
<td>Analysis</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td>Results</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Discussion</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>Conclusion</td>
<td>91</td>
<td></td>
</tr>
<tr>
<td>Recommendations for practice</td>
<td>92</td>
<td></td>
</tr>
<tr>
<td>References</td>
<td>94</td>
<td></td>
</tr>
<tr>
<td>4 CONCLUSION</td>
<td>98</td>
<td></td>
</tr>
<tr>
<td>Discussion and Synthesis of Research Findings</td>
<td>98</td>
<td></td>
</tr>
<tr>
<td>Recommendations for future study</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Recommendations for practice</td>
<td>101</td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>References</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>APPENDICES</td>
<td>104</td>
<td></td>
</tr>
<tr>
<td>A LABEL AND MENU OBSERVATION INSTRUMENTS</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>B INSTITUTIONAL REVIEW BOARD APPROVAL AND INFORMED CONSENT FORMS</td>
<td>108</td>
<td></td>
</tr>
<tr>
<td>C INTERVIEW QUESTIONS</td>
<td>116</td>
<td></td>
</tr>
<tr>
<td>D INTERVIEW TRANSCRIPTION AND SAMPLE CODING SCHEME</td>
<td>121</td>
<td></td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Conventional vs. grass-fed retail prices per pound</td>
</tr>
<tr>
<td>2.1</td>
<td>Main findings of labels, menus, and website analyses</td>
</tr>
<tr>
<td>2.2</td>
<td>Names of farms and use on menus</td>
</tr>
<tr>
<td>3.1</td>
<td>Braun and Clarke’s 15-Point thematic analysis checklist</td>
</tr>
<tr>
<td>3.2</td>
<td>Outline of analysis</td>
</tr>
</tbody>
</table>
LIST OF DEFINITIONS

Alternative Beef: Beef finished in a non-conventional system e.g. grass-finished, pasture finished

Brands/Branding: advertising a business such as a ranch, restaurant, or movements targeting local products

Boundary Objects: Boundary Objects work between multiple social worlds and although have an agreed upon definition, the meaning of that object can be interpreted through different social lenses

Cereal Grain/Grain-finished: Cattle finished on cereal grains such as corn

Certifications (Third Party): When a third-party like the United States Department of Agriculture or the American Grass-fed Association certifies that a product or production methods meets a definition of standards outlined by that entity

Claims (Product/Packaging): Wording used to advertise product such as cruelty free or pasture raised

Conventional Beef: Beef finished in a feedlot on cereal grains

Craft Butcher: Artisan butcher shops focused on in house breaking down of carcasses

Culinary Leaders/ Culinary Professionals: Butchers, chefs, or restaurant owners who work closely with and have knowledge of beef production methods, purchasing standards, and preparation

Diffusion of Innovation: A theoretical framework explaining how innovations are communicated and adopted over time
Finishing: Cattle start their life on grass pasture but eventually are moved to another diet for “finishing”

Grass-Finished: Cattle being finished on grass

High-end Restaurant: An expensive sit-down restaurant with a focus on fine dining

Legume-Finished Beef: Beef from cattle finished on tannin-containing legume crops such as Birdsfoot trefoil

Local: Beef that is sourced from a specific region, state, or city

Outlet: Places where beef is sold and/or consumed

Pasture-Finished: Cattle finished on pasture

Rocky Mountain Region: A geographic area of the United States including Idaho, Montana, Wyoming, Colorado, Utah and New Mexico. This study involved Colorado and Utah, specifically

Specialty Shop: A shop selling high quality products

Symbolic Consumption: socially constructed meaning of consumable goods
CHAPTER 1
INTRODUCTION

Finishing cattle on tannin-containing legumes

Conventional beef production systems have been identified as a major global source of greenhouse gasses, soil degradation, and an inefficient use of arable land (Eshel and Martin 2006; Stehfest et al. 2009; Pradhan et al. 2013; Pierrehumbert and Eshel 2015). Given the environmental impact of conventionally raised cattle, researchers at Utah State University have begun to study the ecosystem benefits of finishing cattle on tannin-containing legume forages. In this, environmental impacts are addressed by finishing cattle on nitrogen fixing forages that do not need annual mechanized tilling and can be grown on less agriculturally valuable land (MacAdam and Villalba 2015). This research aims to identify the most effective way to market Rocky Mountain Legume-Finished Beef. Specifically, this thesis presents a two-part research agenda to help answer the overall research question: How and to whom should Rocky Mountain Legume-Finished beef be marketed?

After exploring two current and popular beef production systems, the process behind Rocky Mountain Legume-Finished beef will be summarized and followed by brief exploration of specialty meat trends and an assessment of Rocky Mountain Legume-Finished beef’s adoptability. Before delving into the data, the overarching thesis structure and research questions will be addressed. Two stand-alone chapters exploring the way in which specialty meat is being marketed in restaurants, butcher and specialty shops and the concerns and preferences of culinary experts will follow this. These two chapters will
advise further marketing strategies for Rocky Mountain Legume-Finished beef, described in the concluding chapter.

*Current production systems*

Cattle raised in a conventional production system begin their life on pasture but they are ‘finished’ by being transported to a feedlot where they are fed cereal grains until they reach slaughter weight, averaging 571 kg in 440 days (Capper 2012). Unlike the perennial forages that cattle consume for most of their lives, these cereals are grown as annual crops, which requires intensive cultivation, exposes soil to wind and water erosion, and depletes the soil of organic matter, nitrogen and other nutrients (Van Diepeningen et al. 2006).

It has been estimated that 18% of global greenhouse gas emissions are directly related to livestock production and much of that is due to ruminant production and the methane produced as a byproduct of ruminants digesting low quality forages (Stehfest et al. 2009). This recognition along with concern over animal well-being and human health has caused an increase in public interest over where meat comes from (Gwin 2009; Dudlicek 2015). While some advocate for a reduction or suspension of animal agriculture, others point out that the intensification of feedlot production, using younger animals that are finished as rapidly as possible, results in lower carbon emissions per pound of red meat (Capper 2012). Is there a better alternative that addresses the weaknesses of intensive beef production including the feeding of cereal grains to ruminants, routine feeding of antibiotics and steroidal hormones, and water and air pollution from concentrated animal waste?
Many advocate for a grass-only cattle production system (Weber et al. 2008). With this approach, cattle are raised on less agriculturally valuable rangeland or pasture for the entirety of their lives (Stehfest et al. 2009). This reduces the carbon emissions associated with cattle and grain transportation to feedlots, the mechanization, fuel use and soil degradation associated with annual cropping, the diversion of cereal grains to ruminants, and the soil erosion and synthetic pesticide and fertilizer inputs associated with cereal grain production (Pierrehumbert and Eshel 2015). However, a grass-fed system is not without its flaws; Capper (2012) reported that it takes an additional 239 days for a calf to reach a slaughter weight of 486 kg in a grass-only system.

Keeping calves alive longer, until they reach a slaughter weight equal to that of a feedlot-finished animal, requires more resources, such as land and grass, to be invested for the same amount of product, while the calves emit greater amounts of methane from consuming grass rather than grain (Capper 2012). This makes grass-based cattle production less efficient than conventional cattle production (Capper 2012). Thus, beef from grass-fed cattle is inevitably more expensive pound for pound (Gwin 2009), as shown in Table 1.1.

However, the additional implied value (more environmentally friendly, improved animal welfare) associated with a grass-fed label makes this price point acceptable to many consumers (Umberger et al. 2002; Weber et al. 2008; Umberger et al. 2009).

A grass-only diet also gives the meat from slaughtered cows a distinct taste that can be appealing or a deterrent depending on the consumer (Umberger et al. 2002). Thus, even if finishing cattle without grain addresses some potential environmental pitfalls of
Table 1.1 Conventional vs. grass-fed retail prices per pound

<table>
<thead>
<tr>
<th>Cuts</th>
<th>Conventional (Average $/lb.)</th>
<th>Grass-fed (Average $/lb.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ribeye Steak</td>
<td>7.82</td>
<td>21.96</td>
</tr>
<tr>
<td>Chuck Roast</td>
<td>4.01</td>
<td>8.65</td>
</tr>
<tr>
<td>Flat Iron Steak</td>
<td>6.93</td>
<td>14.8</td>
</tr>
<tr>
<td>Rump Roast</td>
<td>3.64</td>
<td>8.92</td>
</tr>
<tr>
<td>Bottom Round Roast</td>
<td>4.02</td>
<td>10.56</td>
</tr>
<tr>
<td>Filet Mignon</td>
<td>13.38</td>
<td>59.19</td>
</tr>
<tr>
<td>Tenderloin</td>
<td>11.75</td>
<td>23.52</td>
</tr>
<tr>
<td>Sirloin Steak</td>
<td>5.46</td>
<td>15.81</td>
</tr>
<tr>
<td>Sirloin Roast</td>
<td>3.93</td>
<td>9.45</td>
</tr>
<tr>
<td>Brisket</td>
<td>3.96</td>
<td>9.55</td>
</tr>
<tr>
<td>Flank Steak</td>
<td>7.97</td>
<td>12.06</td>
</tr>
<tr>
<td>Tri-Tip</td>
<td>4.82</td>
<td>23.33</td>
</tr>
<tr>
<td>Skirt Steak</td>
<td>5.55</td>
<td>11.83</td>
</tr>
<tr>
<td>Short Ribs</td>
<td>4.83</td>
<td>8.07</td>
</tr>
<tr>
<td>Stew Meat</td>
<td>4.75</td>
<td>9.71</td>
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</tbody>
</table>

Source: USDA, 2016

conventional beef production, if consumers do not choose to substitute their conventional beef, then grass finishing is an unsatisfactory solution to common consumers concern about the hormones and antibiotics used in feedlots to enhance gain (Gwin 2009). Furthermore, in a 2016 report predicting 2017 trends, released by the National Restaurant Association, fifty percent of chefs reported grass-fed beef a hot trend as compared to sixty-one percent in 2016, and twenty-six percent reported it was “yesterday’s news,” as opposed to 21% in 2016 (National Restaurant Association 2015; 2016). Despite the decrease in the novelty of grass-finished beef reported by chefs, both locally sourced meat and environmentally conscious meat were in the top ten trends for the past two consistent years (National Restaurant Association 2015; 2016). With the novelty of grass-finished beef decreasing and demand for local and environmentally conscious meat continuing, a sustainable and palatable alternative to conventional feedlot finished beef could fill the locally sourced and environmentally conscious meat niche market.
Beef from cattle raised on tannin-containing legume forages

Researchers at Utah State University (USU) are currently working on a project, funded by the United States Department of Agriculture (USDA) Agriculture and Food Research Initiative competitive grant program, assessing the ecosystem service benefits of finishing cattle on tannin-containing forages in irrigated pastures (MacAdam and Villalba 2015). Legumes are natural nitrogen fixers (which means that their roots produce nitrogen via a collaboration with plant roots and soil microbes), thus legumes require no synthetic nitrogen fertilizers. The legume forages under study are also perennials, requiring less mechanization and cultivation than crops that must be replanted annually, resulting in less soil erosion (Waghorn 2008). Less mechanization of agricultural production also results in reduced greenhouse gas emissions (Waghorn 2008).

Further, cattle finished on tannin-containing legume forages reduces agricultural carbon emissions by eliminating transportation of grain and reducing transportation of cattle (Weber and Matthews 2009). In addition, cattle finished in this production system achieve slaughter weight within a period comparable to a conventional system (Chail et al. 2016). Thus, it addresses the major caveats of conventional as well as grass-fed only systems (Chail et al. 2016). In addition, a relatively low concentration of tannins in forage legumes can improve the ruminal efficiency of cattle compared with grass consumption, significantly reducing cattle methane emissions (Pinares-Patiño et al. 2003; Frutos et al. 2008). However, none of these facts matter unless consumers are willing to seek out and purchase the beef from cattle raised on tannin-containing legumes (hereafter referred to as Rocky Mountain Legume-Finished beef).
In consumer taste testing, Rocky Mountain Legume-Finished beef was comparable to beef raised on cereal grains in terms of tenderness, juiciness and “overall liking,” although conventionally raised beef was preferred for taste (Chail et al. 2016). However, grass-finished beef ranked lower than beef finished on the tannin-containing legume or on cereal grains for the categories listed above, suggesting that Rocky Mountain Legume-Finished beef was preferred over grass-finished (Chail et al. 2016). In addition, Rocky Mountain Legume-Finished beef showed greater productivity in terms of dairy cow milk production or beef gain than cattle grazing on grass pastures (MacAdam and Villalba 2015). For these reasons, Rocky Mountain Legume-Finished beef is a more sustainable alternative to conventionally raised beef or a grass-finishing system (Chail et al. 2016).

Assessment of adoptability

The success of Rocky Mountain Legume-Finished beef depends upon consumer acceptance. Research on how individuals make purchasing decisions highlights product labels as being an important factor. Specifically, studies highlights how terms like “local” (Lim and Hu 2016), “grass-finished” or “pasture raised” (Pirog 2004), or “organic” (Zepeda and Deal 2009) can influence a consumer’s decision to purchase or not purchase a product, as well as how much they are willing to pay (Umbarger et al. 2002; Umbarger et al. 2009; Curtis et al. 2014). The reaction consumers have to these claims is deeply rooted in their own individual values (Dreezens et al. 2005; Hoogland et al. 2005; 2007; Guthman 2007; Johnston and Szabo 2011). Further, research aimed at understanding value-based culinary trends explores the role that chefs and butchers have in perpetuating

By first identifying the socially constructed value base from which consumers in the Rocky Mountain Region situate their buying choices, suggestions can be made regarding how an innovative beef production system can fit into the cultural narrative that influences buyers’ individual choices. Specifically, examining how beef products are marketed at butcher shops, specialty stores and local restaurants can identify these values. Furthermore, insight from butchers and high-end chefs already partaking in the preparation of local beef can serve as a gauge for the trends that are important to culinary innovators in the Rocky Mountain Region.

**Theoretical framework**

Two distinct theoretical frameworks are used in this research: Symbolic Consumption and Diffusion of Innovation. Symbolic consumption recognizes that all meaning is socially constructed through significant symbols that have a culturally agreed upon meaning, and food is no exception (Flint 2006). Therefore, symbolic consumption rests on the assertion that identity and values can be consumed, through individuals’ food choices (Flint 2006).

Diffusion of Innovation proposes that new innovations are adopted over time, starting with innovators followed by early adopters, early majority, late majority, and laggards (Rogers 2002). Early adopters act as opinion leaders in their field creating and constructing the norms in which innovation adoption is assessed throughout the curve (Rogers 2002). Innovation adoption should be targeted to the most effective group of adopters: early adopters as innovators tend to be marginalized members of society who
can take risks because the stakes are so low (Rogers 2002). The early adopters serve as a key informant in the dissemination of innovation and trends.

These two theoretical frameworks are used in order to facilitate understanding of (1) how meaning is constructed by culinary opinion leaders already working with beef trends,” and (2) the barriers and benefits associated with adoption. Taken together, the frameworks helped inform both the formulation of research questions as well as research methodology. Both Symbolic Consumption and Diffusion of Innovation will be discussed in more detail in chapters two and three.

**Thesis purpose, structure, and research questions**

This thesis is structured in a multi-paper format. Chapter Two is formatted for submission to *Agriculture and Human Values*. Chapter Three is formatted for submission to *Agroecology and Sustainable Food Systems*. These articles are expanded for the purposes of this thesis and will be edited to meet word count requirements for the journals prior to submission.

The data for both chapters was collected from summer 2017–winter 2018. These two chapters work together to examine the social construction of chefs, butchers, and culinary personnel as boundary objects communicating knowledge, and to explain the role butchers and chefs play as opinion leaders in the diffusion of trends and the difficulties they face achieving desired output. This is done by a discursive analysis of labels, menus, and websites in congruence with a thematic analysis of qualitative interviews conducted with butchers and chefs in the Rocky Mountain Region. Together these methods address the following research questions.
Overall research question

How and to whom should Rocky Mountain Legume-Finished Beef be marketed?

Research Question 1:

How are values associated with specialty beef being constructed and communicated?

Research Question 2:

What role do chefs and butchers play in constructing and communicating specialty beef trends?

• What are the most salient benefits associated with emerging specialty beef trends?
• What potential barriers exist in trend adoption?

References


CHAPTER 2
“WE TAKE IT ALL SERIOUSLY SO YOU DON’T HAVE TO” – THE ROLE OF CULINARY PROFESSIONALS IN CONSTRUCTING SUSTAINABLE BEEF ACCEPTANCE AMONG CONSUMERS

Abstract
Demand for alternative methods of beef production is rising due to concern over potential negative impacts on human health, the environment, and animal welfare. Although this creates an opportunity for new products that address these concerns, values associated with food are complex; in order to establish more sustainable practices associated with beef production, values currently associated with beef need to be unpacked. Based on the hypothesis that high-end butcher shops and restaurants are both heightening and marketing to these concerns, an exploratory discourse analysis was conducted of select restaurants, butchers, and specialty shops’ websites, menus, and food labels as boundary objects. A discursive analysis framework allows the meaning behind these mediums to be assessed by identifying commonly used production claims, such as locality, or humane treatment, and understanding how significance is constructed through context. Results of this analysis reveals that these discourses focus on chefs and butchers as cultural exemplars that synthesize knowledge for their customers and situate themselves as a vital link in the “unbroken chain” between consumer and producer. These discourses go beyond addressing consumer concerns to a promise to “take it seriously so you don’t have to.” More importantly, the coded discourses focus on authenticity, tradition, and local heritage. These findings reveal that the success of more sustainable beef production methods is a function of how authentic or traditional those
methods are perceived to be and, in turn, the effectiveness of the communication of these values to consumers by opinion leaders in the field of high-end food.

**Introduction**

A growing number of producers, consumers, and scientists are questioning the sustainability of finishing cattle in conventional feedlot settings due to potential environmental consequences and concerns over animal welfare (Weber et al. 2008). Among beef consumers, the ‘natural’ segment of the overall meat market, comprised of “natural standard” (brands that follow strict standards) and “specialty meats” (marketed as artisan premium and ethnic),” grew nearly twenty-four percent in 2015 as compared to an approximately five percent growth for conventional meats (Dudlicek 2015). The majority of growth was attributed to products claiming to be ‘hormone/antibiotic-free,’ ‘grass-fed,’ or ‘humanly raised’ (Dudlicek 2015).

Niche meat trends are echoed in the restaurant industry. In 2017, the National Restaurant Association placed “environmental sustainability, locally sourced meat and seafood, and simplicity/back to the basics” all within the Top 10 Concept Trends for the year (National Restaurant Association 2017). Dudlicek (2015) advised retailers that “natural shoppers prize honesty, transparency, and compelling farm-to-fork stories” (n.p.). Although consumers, as well as chefs, are increasingly interested in artisan cuts and concepts that are also more environmentally sustainable than previous production methods, truly alternative products remain under-produced (Hoogland et al. 2005; Cox et al. 2007).

Beef producers are reluctant to adopt new production methods without more certainty of the marketability of those products and researchers struggle with the
difference between the science of beef production and the perception of beef consumers (Thilmany et al. 2008). Although consumers are increasingly interested in new food trends such as “natural” (Dudlicek, 2015), they remain sensitive to price, taste, and other traditional qualities of beef (Umberger et al. 2002; Chail et al. 2016). Also, many consumers remain skeptical of the ways that the specific qualities of alternative foods are communicated (Abrams et al. 2010).

Despite confusion or skepticism, consumers are influenced to purchase or not purchase products based on product branding, certifications, and claims (Kozup et al. 2003; Ampuero and Vila 2006; Thilmany et al. 2008; Schnettler et al. 2009; Tobler et al. 2011). For example, a study conducted in Canada found that consumers were more interested in products that had a specified locality, such as their home province or country, rather than generic “local” (Lim and Hu 2016). This suggests that generic value-based labels cannot be simply applied but rather require a more nuanced approach to what is being constructed and communicated. Therefore, the importance of effective labeling and marketing should not be dismissed.

Specialty meat labels serve as vital link in communicating the values associated with specific foods to consumers (McEachern and Warnaby 2008; Eden 2009; Abrams et al. 2010; Zepeda et al. 2013; Van Loo et al. 2014). Therefore, in order to successfully introduce a new product in the food market, these values and the modes in which they are communicated need to be considered. Moreover, menus and restaurant websites work as “virtual storefronts” to advertise and communicate the overall brand of the restaurant (Johnston et al. 2009).
This research investigated what values are already being communicated through food labels, menus, and the websites of high-end restaurants, butchers, and specialty shops sourcing from alternative beef production systems. Understanding the values being communicated is necessary to successfully marketing Rocky Mountain Legume-Finished beef, the norms created and constructed by these culinary professionals allows new products to be situated in a way that is culturally relevant and meaningful.

Focusing on larger cities in the Rocky Mountain Region, where cattle ranching is both a part of the regions history and identity, a discourse analysis was employed providing insights into not just what is being said but into how deeper meaning is constructed in the discourse of restaurants and shops already partaking in non-conventional beef production. Therefore, the meaning constructed in these narratives creates identity, relationships, and significance between individuals partaking in this practice. By analyzing the current discourse around beef, the legitimacy of new beef production methods can be situated in such a way as to appeal to consumer values as well as incorporate the science underpinning sustainable food production.

**Theory: Symbolic consumption and boundary objects**

The emerging specialty and natural meat movement is perhaps best defined by Ocejo (2014) as a “meat philosophy.” The meat philosophy appeals to “several moral tenets of where ‘meat’ should come from and how meat ‘should’ be produced, and what ‘good’ taste in meat is” (p. 109). Furthermore, Ocejo discusses how meat and beef products that are simple and handmade on a small scale represents elitism in a symbolic economy, defined by Ocejo (2014) as an economy where value-laden non-monetary
goods are traded and accessed. In this, consumers partake in symbolic consumption, with the socially constructed meaning related to the item becoming worth more than the physical item itself.

Symbolic consumption is a theory that is based heavily on the theory of symbolic interactionism, which asserts that all meaning is socially constructed through discourse (Flint 2006; Watson 2010). There are three premises in symbolic interactionism, (1) individuals perceive things based on the meaning they have for them, (2) meaning is derived through social interactions, and (3) meaning is modified through interpretative processes (Blumer 1969). When a meaning is agreed upon culturally it becomes a significant symbol (Watson 2010).

Symbolic consumption specifically examines the reflexive processes associated with symbolic interactionism in regard to constructing the value of purchasing and consuming products (Flint 2006). Meat is by no means an exception to this process; the symbolism surrounding meat suggests that raising animals and the consumption of meat is not an issue of nutrition alone (Jones 2007). Therefore, when addressing individual attitudes about meat consumption behaviors it is important to remember the larger context in which they exist.

A boundary object works as a significant symbol ‘translator’ between two different social worlds (Eden 2009, p.409). Boundary objects are defined by Star and Griesemer (1989) as:

Objects which both inhabit several interesting social worlds and satisfy the information requirements of each of them. Boundary objects are both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites (p. 393).
As the U.S. food industry has become more distant from the consumer, labels have taken on the role of a boundary object, working as a translator between two different social worlds, that of the producer and that of the consumer (Eden, 2009). A great deal of academic scholarship has been focused on understanding how consumers make sense of labeling (Flint 2006; Howard and Allen 2006; Hoogland et al. 2007; McEachern and Warnaby, 2008; Eden 2009; Schnettler et al. 2009; Abrams et al. 2010; Zepeda et al. 2013; Bradu et al. 2014; Lim and Hu 2016). These studies suggest that label information is not “simply transferred” from producer to consumer but it is “actively constructed and reinterpreted” through the consumers’ own values and ideals (Eden 2009). When faced with a product, a consumer has to decide what information is relevant and how the different pieces of information fit together to create meaning (Jones 2014).

Furthermore, Barnes (2017) applied the theory behind boundary objects to celebrity chef Jaime Oliver, suggesting that he worked as a talking label to promote ‘good’ food to his viewers. In this, celebrity chefs exist in a space where they can blur the lines between ‘science, health, governance, and consumption’ situating themselves as a key component in translating knowledge from the producer to the consumer (Barnes 2017). Furthermore, they use storytelling to establish themselves as the authority but also relate to the consumer as an equal (Matwick and Matwick 2014). The construction of ‘good’ taste has also been documented in exchanges through craft butchers and their clients (Ocejo 2014). This research aimed to understand how professionals’ use of labels, menus, and websites replicate or fail to replicate this role of translating knowledge about the food they prepare and serve.
Discursive analysis captures constructed meaning behind communication, both verbal and non-verbal, relating directly back to the theoretical framework of symbolic consumption and boundary objects (DuPuis 2000). Specifically, the discursive analysis tool of “Figured Worlds” outlined by Gee (2014) is used to understand how different social and cultural groups makes sense of the world through narratives and images. In doing so, individuals form what is “normal” or “natural” (Gee 2014, p. 169). Discursive analysis has been used by DuPuis (2000); Jones (2007; 2014); Eden (2009); Johnston et. al. (2009); Matwick and Matwick (2014), to examine the socially constructed values associated with food, food labels, and culinary professionals. The research presented here continues this tradition by examining labels, menus and websites and in order to answer the following research questions.

**Research question**

How are values associated with specialty beef being constructed and communicated in metropolitan cities in the Rocky Mountain Region?

**Methods**

Restaurants, chefs, and specialty shops were chosen for this sample due to their role as opinion leaders in new culinary trends (Weber et al. 2008; Inwood et al. 2009). Websites and food labels have both been examined as boundary objects through discursive analysis (Eden 2009; Johnston et al. 2009). Further, information included on restaurant menus has been identified in influencing consumer choice (Beardsworth and Keli 1996). Further, focusing on restaurants (Inwood et al. 2009) and shops (Ocejo 2014) in metropolitan areas has been used effectively in understanding culinary trends.
Study site

The study area encompassed Salt Lake City and nearby Park City, Utah as well as Denver, Colorado. These cities are located in high mountain deserts at the base of the Rocky Mountains, surrounded by agricultural land and cattle production. Importantly, this type of land is where research trials finishing cattle on tannin-containing legume crops are occurring. Also, in this geographic region, cattle ranching is an important part of the region’s history, with many people still engaged in this profession (Starrs 2000).

Furthermore, these urban hubs have numerically more craft butcher shops, specialty stores, and restaurants than other cities in these states (Colorado Restaurant Association 2016; Utah Restaurant Association 2016). Due to more numerous dining options, relatively high disposable income, and higher population density, metro-area residents spend significant money eating away from the home (Inwood et al. 2009). This creates more of a market for specialty, local products (Inwood et al. 2009). Since this research is aimed at understanding the adoptability of Rocky Mountain Legume-finished beef from cattle finished on tannin-containing legume crops, the research team chose to focus on these metropolitan areas.

Data collection

Lists of butcher shops where beef is butchered on site, and specialty grocery shops where beef is sold pre-packaged in a display case, were collected by performing a Google Maps search of “butcher shop + (city name)” and “specialty shop + (city name).” From the results, chain stores, deli counters in supermarkets, carnicerias, shops that focused on proteins other than beef (e.g., sausages), and butcher shops that primarily butchered wild game were excluded. Websites for the remaining establishments on the
list were added if they marketed themselves or their products on the website as one of the following: “specialty,” “organic,” “natural,” “local,” “grass-fed,” and/or “artisan” (Ocejo 2014). These were identified as signaling words in the foodie movement, where a knowledge of food politics is manifested through terms considered correct and defensible (Johnston and Baumann 2007; Johnston et al. 2009; Ocejo 2014).

Restaurants were first selected from the Utah Farm-to-Fork program and Colorado Farm-to-Table. These databases are comprised of restaurants that are working with and/or interested in working with local producers. Restaurants were removed from the list if they were no longer in business or did not feature beef or non-conventional beef on their current menus. Those remaining served as an initial list to which restaurants were added.

Restaurants in all locations were added through exhaustive Google searches of, “steak houses” and “local restaurants,” which led to establishments’ websites, where “about” sections and menus were examined to see if they featured alternatively sourced or local beef. The website pages were then copied from the website and pasted into a Word Document that was printed for analysis. Websites searches were conducted starting in May 2017 and ending in January 2018. The shops, stores, and restaurants were visited in person beginning in September 2017 and concluding in January 2018. Data was collected using a predetermined collection instrument (Appendix A).

This exhaustive data collection resulted in a sample of twenty-four establishments: sixteen restaurants, four butcher shops and four specialty shops. In the case of craft butcher shops in Salt Lake City, there was only one, so 100 percent of the target population was obtained in the sample. For the restaurants and specialty shops,
there is a chance that an establishment did not appear on either Farm-to-Table lists or could not be identified through search engines but all others were identified and visited. Once data were collected, a discursive analysis was conducted by looking for themes in and across regions and outlets. Establishments are coded for anonymity, with the first letter representing the type of outlet: B= butcher shop, S= specialty shop, and R= restaurant. This is followed by the first letter of the city (D= Denver) or the cities’ initial (S.L = Salt Lake and P.C= Park City). Lastly, a number was assigned to each establishment solely to differentiate one establishment from another. For example, B.D2 would be a butcher shop in Denver, while R.P.C3 would be a restaurant in Park City.

Analysis

Websites pages, beef labels, and menu claims were coded by theme and then analyzed by answering a series of questions developed by Gee (2014) aimed at understanding underlying meaning, such as: how language is used to add significance, establish identity and relationships, and enact a “figured world” centered around agreed upon values. This process led to identified themes associated with alternative beef production and consumption systems, distinguished by store type and region.

Establishments were sorted by both location and outlet type in order to better understand the discourse taking place in those different areas. Common themes were coded based on a priori keywords such as: local, animal welfare, and grass-fed. These were chosen based on the results of research done by Ocejo (2014). Using tools presented by Gee (2014), the ways in which meaning was constructed around those words was assessed. This was done through reflecting on and revising responses to questions such as:
• ‘How is this piece of language being used to make certain things significant or not and in what ways?’
• ‘What identity or identities is this piece of language being used to enact (i.e. get others to recognize as operative)?’
• ‘What identity or identities is this piece of language attributing to others, and how does this help the speaker or writer enact his own identity?’
• ‘What sort of relationship is this piece of language seeking to enact with others (present or not)?’
• ‘How does this piece of language connect or disconnect things; how does it make one thing relevant or irrelevant to another?’

After coding and questioning was completed, the themes from the different discourses by city and outlet were compared and contrasted to ascertain similarities and differences. The overarching discourse that occurred was then situated in the “Figured World” tool by Gee (2014) to further understanding of created meaning. Figured Worlds are comprised of “narratives and images that different social and cultural groups use to make sense of the world” and create an agreed upon meaning of what is “normal and natural” from that groups perspective (Gee 2014, p. 169). The results below explore both the themes as they relate to or differ by region or outlet as well as the culmination of meaning in a figured world. However, no significant difference was found between region or outlet.

Results

Results of this analysis of labels, menus, and websites revealed that significance is built in several different ways. Third-party certifications were not prominently used in craft butcher and specialty shops, while menus displayed farm names but rarely farm locations.
Moreover, websites provided robust data focused on the professionals’ first-hand experiences in searching out products, commitment to strict standards, and defining what they are and are not. Table 2.1 outlines the main findings from each section of analysis. The sections below present exemplars from themes and narratives found on labels, menus, and websites.

**Table 2.1 Main findings of labels, menus, and website analyses**

<table>
<thead>
<tr>
<th>Main Findings:</th>
</tr>
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<tbody>
<tr>
<td><strong>Labels:</strong></td>
</tr>
<tr>
<td>Craft butchers do not use labels</td>
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<tr>
<td>Packaging with claims and pictures to create standards</td>
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<tr>
<td>Specialty stores go beyond certifications</td>
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<tr>
<td><strong>Menus:</strong></td>
</tr>
<tr>
<td>Restaurants put ranch names on menus</td>
</tr>
<tr>
<td>Locality on menus less prominent</td>
</tr>
<tr>
<td>Rarely certifications of production standards</td>
</tr>
<tr>
<td><strong>Websites:</strong></td>
</tr>
<tr>
<td><strong>Narratives:</strong></td>
</tr>
<tr>
<td>Knowledge/First hand experience</td>
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<tr>
<td>We are committed</td>
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<tr>
<td>What we are not</td>
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</tbody>
</table>

**Labels**

One of the main differences found in the analysis was between labeling at craft butcher shops as compared to specialty shops. At craft butcher shops, meat was often not labeled, nor were any certified product claims displayed. For example, one butcher shop in Salt Lake City only communicated product claims with the following statement scribbled on a black board: “We support small farming in the greater Rocky Mountain West” (B.S.L1). Butchers in Denver used their own logo on labels along with cut and
price per pound and an occasional Colorado flag (B.D2). This differs from specialty shops, where they align closely with the brand that they are selling.

In Salt Lake City, pre-packaged Canyon Meadow Ranch beef is sold at a small neighborhood specialty shop. Canyon Meadow Ranch does not use any third-party certifications but rather displays the brand “Utah’s Own” (S.S.L1). Moreover, the label is a picture of cattle grazing on a green pasture against a blue sky with the statement “Never fed or given hormones, antibiotics, or animal by-products” printed (S.S.L1). In Denver, another specialty shop sells Niman Beef, the name of which is proudly displayed. Here though, the marketing at the store also defines itself as what they are not; for example, they display signs along the counters that read what a standard means and how the store defines it (S.D2). On one placard, it reads: “What Is: ‘All Natural’ Beef?”

On one side, it states the legal definition:

The USDA defines it as a product that does not ‘contain any artificial flavor or flavoring, coloring ingredients, or chemical preservatives” So the animal can be administered antibiotics and hormones and still receive an ‘all-natural’ label. (S.D2)

On the other side, the store’s all-natural beef is defined:

In addition to the USDA requirement, we require that animals are raised humanely and sustainably, never given hormones or antibiotics, and are fed a vegetarian diet. And that it tastes great! More info at Nimanranch.com. (S.D2)

Specialty shops and butchers do not rely on third-party certifications. In fact, the USDA standards are often used as a baseline standard that the product excels above. Moreover, the lack of labels at most butcher shops and emphasis on personal branding suggests that the butcher shop considers itself a more credible source than certifications.
by third parties. In this, an emphasis on brand rather than certifications appears a preferred method.

*Menus*

Beef is commonly marketed on the menu with use of the ranch name. On eight of the fourteen menus analyzed, the ranch name was attached to the menu item, with three of those eight featuring more than one ranch (Table 2.2). Moreover, only two put the location of the ranch, while one menu just read, “Colorado Hanger” (R.D5). Most of the farms featured on menus are from surrounding states, with Brandt Beef from California being the farthest farm mentioned. However, although two menus featured beef from Piedmontese cattle, only one restaurant specified that it was raised in Nebraska. Three menus mentioned grass-fed or finished beef, but only one (R.D2) advertised that it was certified grass-fed. Dry aging was mentioned on four of the fourteen menus, while Wagyu beef was only featured on three.

Sustainability standards encourage consumers to eat seasonally and locally, and a list of vendors at the bottom of a few menus was observed. For example, R.D3 dedicates the last page of their menu to a list of the local purveyors they source from. Moreover, restaurant menus list their sustainability standards outside of food such as: being powered by 100% wind energy, using biodegradable cleaning products, and composting and recycling 80% of their waste. Although, this was by far the most detailed portrayal of sustainability standards, others included a few lines at the bottom of their menus. These often listed farms, or simply stated, “support local farmers. Eat seasonally!” (R.D6).
Table 2.2 Names of farms and use on menus

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<th>7X Waygu</th>
<th>Painted Hill</th>
<th>Cedar River</th>
<th>Crystal River</th>
<th>Brandt Beef</th>
<th>Snake River</th>
<th>Niman Ranch</th>
<th>Aspen Ridge</th>
<th>Allison's Ranch</th>
<th>Farms</th>
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<tbody>
<tr>
<td>R.P.C1</td>
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<td>R.D2</td>
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<td>R.D3</td>
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<td>R.D7</td>
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<td>R.D8</td>
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</table>

✓ = “ranch” or brand is named on menu
✔ = location is included on menu
☐ = certification is included on menu
* = grass-fed but not farm or location

Including the ranch, or ranch brand, name on the menu was the most common way in which menus in this sample communicated about their beef products. By introducing the ranch, restaurants are introducing a character, a place, and a brand that customers can then access. Surprisingly, only two of the eight restaurants included the location, suggesting that locality may not be as important as the brand itself. Only one menu mentioned a certification of any kind, once more implying that certifications come second to an implied personal connection.

Websites

Websites proved to be the most robust venue for communication between establishments and consumers. This is due to the amount of information that a website
can store as opposed to labels or menus, and that websites are often the driver of consumers to establishments. Themes discovered on websites can work together to create a narrative world where the chef, butcher, or specialty shop as a whole is an expert, expressing the values held in common with potential consumers. This process is intended to distinguish these businesses from what would otherwise seem to be similar operations. For instance, restaurants in this sample often distinguish themselves not only from chain restaurants that buy from “faceless farms” but also from other relevant terms that may be losing credibility such as “organic.” In order to establish trust with potential customers, these culinary websites establish a strict “baseline standard” for the product and use narratives about working closely with producers, whom they trust, to assure the customer that they are eating food aligned with their ethical standards. In this process, words that lack specific meaning, such as “animal welfare,” gain increased significance when situated next to a detailed description of how the cow was able to live. Further, narratives detail journeys taken by these professionals in order to secure ingredients from credible sources. The examples below summarize overarching narratives found in the majority of websites.

Knowledge/firsthand experience

In order to express a relationship between the producer and the chef as well as the chef and the consumer, storytelling by the chef, butcher, or shop on websites emphasizes journeys around the world “collecting the best the land and sea has to offer” (R.P.C1). These passages make use of active verbs such as “embarking,” “trekking” and “rambling.” This is coupled with descriptions of location-specific ingredients and appeals to authentic production methods or heritage. For example, a high-end eatery in Park City
explains on their home page about the head chef’s journey prior to opening the restaurant thusly:

He then embarked on a mission: visiting local producers across the country and around the globe: farmers to fisherfolk, ranchers to cheese mongers. He waded waters, tromped muddy fields, and wrestled with pigs like a true farmhand—all in pursuit of the very best the earth and oceans had to offer. His adventures formed the foundation for [R.P.C1], and the rich, luminous stories underlying every dish. (R.P.C1)

By using the terms “embark” and “mission” the narrative makes it clear that the chef did not simply go somewhere. These terms seem to allude to a higher purpose, something greater than himself, embarking on a “mission,” which is common in religious, military, and corporate institutions. Moreover, the use of nouns such as “cheese mongers” and “fisherfolk” appeal to a more artisan or craft way of doing things. Active verbs such as “waded,” “tromped,” and “wrestled” further reiterate the active nature of engaging with heritage that requires a culinary expert. Moreover, they use the word “stories” to describe the flavors behind each dish.

Similarly, on the website for a recently opened steakhouse in downtown Denver, specific locations were used to establish the chef’s relationship with the products he “meticulous[ly]” sourced:

When it comes to sourcing proteins, [R.D5] is meticulous. He searches out wild venison from Texas, tender Sonoma ducks, cattle raised on spring water and pristine Wyoming pasture. (R.D5)

The use of the word meticulous establishes that the chef puts significant thought and work into procuring ingredients, similar to the active verbs in the previous example. This term also implies that the chef has specific knowledge that allows him to be meticulous. The use of location here furthers the chef’s narrative as knowledgeable,
implies that, of course, the best wild venison is from Texas. Further, “cattle raised on spring water and pristine Wyoming pasture” (emphasis added), elicits a sense of purity.

Meanwhile, the use of the word “proteins” as opposed to ‘meats’ suggests an almost scientific assessment of this important nutrient. There are many ethical dilemmas surrounding consumption of meat; however, protein is something the body needs to survive and this chef sources only the best. If the cattle are raised on a pure and clean landscape then the steak will be pure and clean and safe to eat. In this example, the chef is not only meticulous and knowledgeable, but also dedicated to using the best “wild,” “tender,” and “pristine” products that also preserve an important, although somewhat vague, heritage.

This appeal to heritage is not subtle for one butcher shop in Denver. In fact, one of the tabs on the website is actually titled: “heritage” (B.D1). Here, the story of how the owner’s great-grandmother traveled west from Philadelphia with her five daughters leads into the passion behind the current business strategy:

So it is in that same tradition that [B.D1] set out to revive the West one pasture at a time; restoring the ranching of our roots and the roots of our grasses. The West is our heritage, our family, and our life’s blood. Drawing from the West’s diverse grasses, ecosystems, and culture [B.D1] proudly sources meat that is all raised and harvested within 150 miles of Denver. (B.D1)

Here, “grasses, ecosystems, and culture” are inextricably linked to a beef product that is part of a collected “heritage.” The use of the word “revive” is similar in scope to the use of the word “mission,” and implies a larger calling and almost evokes a spiritual connection. In line with the appeal to heritage and authenticity, this butcher shop calls itself a “shoppe,” in an obvious appeal to a time gone by. Moreover, potential guests for the “shoppe” are being invited to become a part of this western narrative by consuming
food that is the product of a western heritage; they are not simply buying beef but are restoring literal and legacy roots. By expressing a personal connection to the region this narrative portrays that not only is the butcher shop her livelihood, but rather a way in which she connects with her history.

For a small neighborhood specialty shop in Salt Lake City, the use of active verbiage in multiple locations results in an assurance of product quality:

Our staff have trekked through muddy pastures in France, rambled among the grazing farm animals in Spain, and sampled from the best home spun kitchens in Chile to insure the integrity, passion, and safety of each and every one of our products. (S.S.L1).

Much like previous examples, the use of words like “trekked,” “rambled,” and “sampled” go above and beyond average interactions with ingredients. They did not just talk with a purveyor, they “rambled among the grazing animals in Spain.” Interestingly, in an appeal to heritage, they prioritize the grazing pastures of Europe, and the small kitchens of Chile. This differs from the narrative constructed by the Denver butcher shop that focused on “the West.” Here, “integrity,” “passion,” and “safety” come from culinary options produced from European highbrow cuisine such as French cooking or from the exotic kitchens of the global South.

In these examples, the culinary personnel work to create an image for themselves as people who are connected personally to the product. They traveled all over the world to find it; they are meticulous about sourcing high-end proteins, from either pristine Wyoming pasture or the rangelands of Spain.
Another common theme found in this analysis was one of “commitment” to a set of “strict standards” although not always used in those exact terms. This sentiment was found on the websites of all butcher shops ranging from sentences assuring a strict adherence to “quality and integrity” to “seasonal, locally-sourced, sustainably-raised, fresh meat” while others established their “baseline” or “commitment” to humane treatment through vivid imagery. In doing so, the butcher shops are then able to clearly define what humane means to them. One butcher shop under the tab “Meet the Butcher,” explains:

We always source animals that are humanely raised. What that means to us is they lived how nature intended, everything we source is a pasture raised animal, with lots of room to roam and frolic like all animals should. All of the products we sell have never been treated with antibiotics or hormones and are never fed GMOs. This is the baseline we set for all of our products (B.S.L1)

Here they appeal to an idea of “how nature intended,” which involves animals being pasture raised. In being pasture raised, animals are able to “frolic like all animals should,” which is working on moral narrative that both the butcher and the consumer share a constructed value that animals living “naturally” is good. Further, they define “natural” as not being treated with/or fed anything that is not natural. With natural being a construct in and of itself, they define natural for their consumer. The butcher then confirms that this is a baseline. The use of baseline suggests that “natural” and “humane” are just the bare minimum and they can be assured that it is the least they are going to get.
Similarly, a butcher shop in Denver conveys what they mean when they write “humane”:

[B.D1] is committed to a humane and pastured life for the animals that come through our doors and a delicious and wholesome start for the food that goes through yours. We guarantee that every animal has access to sunshine, grass, and fresh air for its whole life and is always processed at a small family owned facility” (B.D1).

Here “committed” goes above merely valuing. For them, humane is followed by pastured raised, where cows have access to sunshine, grass, and fresh air, similar to the previous narrative of the animal frolicking. However, the butcher shop takes it one step further and comments that their products are processed at a “small family owned facility.” Here, they are communicating that a family does even the arguably least “wholesome” part of an animal’s life on a small and personal scale. Both of these passages put forth by the butchers appeal to a traditional way of doing things that is natural and wholesome. In an age of factory farms, these craft butchers are offering up an alternative narrative.

Restaurants use the rhetoric of being committed to establishing what practices that are significant to them. Interestingly, this was usually in conjunction with sourcing from local or regional places. A restaurant in Salt Lake City, UT, had a tab on their webpage titled, “sourcing,” which opens to “SOURCING: Local and Sustainable Whenever Possible.” This is expanded upon in a paragraph located farther down the page:

We are committed to finding the best locally and regionally sourced ingredients for our kitchen. We choose to work with our purveyors for their superior products as well as their sustainable philosophies and practices. We hope you enjoy them as much as we do!” (R.S.L6).
Here they differentiate between “local” and “regional” but do provide a context for what qualifies. Further, they include “work[ing] with purveyors,” a middleman, between them and their product, instead of actively engaging with the sourced products. However, they establish that these purveyors offer superior products, “as well as sustainable philosophies and practices.” The purveyors do not only believe in sustainability, they practice it as well. There is value added here of having food sourced from someone who is not being sustainable merely for profit but because it also aligns with their values. They then proceed to list the purveyors they work with. They source “proteins” from Utah and Idaho.

The choice to source from local and regional purveyors is explained at the bottom of the online menu section of an upscale restaurant in one of the scenic canyons surrounding Salt Lake:

[R.S.L5] supports local producers who focus on quality as well as sustainability and conservation. Chef (omitted) partners with several local and regional purveyors in addition to providing fresh organic produce from his own garden… We are committed to providing products grown in keeping the environment as clean as possible by selling food close to where it is grown. (R.S.L5)

Again, sustainability is mentioned alongside conservation. However, this time a focus on quality is mentioned beforehand, asserting that even though they do consider the environment, their product is not going to be subpar. They use the same language as local and regional, which again is not defined, but arguably is insinuated that it is sustainable to source this way. Moreover, the head chef of the restaurant provides “fresh organic produce from his own garden.” The use of the word organic is interesting because it is not specified if it is certified organic but implies that the chef as someone who cares
about conservation and sustainability, is a trustworthy source on what is organic. His “commitment” to local and regional foods is done in an effort to keep “the environment as clean as possible.” This website also lists a sampling of their purveyors, although they do not include the location.

Moreover, several restaurants expand their commitment outside of just concern and baselines for their products from producers they trust. A steakhouse in Denver with a focus on seed to plate, displays in bold letters on their “About Page:”

The [R.D2] family is committed to feeding the neighborhood in which we live and eat—both through the food we offer and, more importantly, our community. (R.D2)

They emphasize that their primary interest is not just “feeding” their neighborhood, which is interesting because this restaurant is not located in a residential neighborhood, but they are looking to feed the (undefined) community. On the website page titled “Sourcing and Sustainability” the word “committed” occurs several more times. They are “committed” to reducing waste through recycling and composting and have community partners to pick up compost five days a week. They also are “committed” to a low impact fryer system, and even when “committed” is not specifically used, it is implied on this page that the restaurant and its head chef work to do things they perceive as good for the community. They even have a link to view their “Monthly Sustainability Report Card.”

Similarly, two restaurants in Salt Lake City mentioned a “commitment to reducing the waste generated by running a business” including composting and using renewable energy. These practices go beyond what is served on the plate, furthering their commitment to sustainability by reporting on other actions. In the case of all the
restaurants, but not the butcher shops, they listed either the purveyors they were sourcing from or outlined the sustainability measures they were taking. Although these are just words, they seem to expect that the potential customer will find them more credible if they give examples. Moreover, the commitment to knowing where food comes from, growing it in house, and implementing composting programs draws on a traditional way of doing things and an appeal to the more consolidated chain of production, consisting of happy animals, with a minimal impact on the environment that they are committed to facilitating. In the words of S.S.L1 we "take it seriously so you don't have to." When guests are in knowledgeable, capable, and committed hands, they have nothing to worry about it.

*We are not that*

Many businesses define their actions by stating what they are not. For some, this includes working with people not things. For example, a passage from the “About” section of a small neighborhood restaurant in Denver states:

>If you are looking for a corporate restaurant serving food from big, faceless farms and massive fishing vessels in an uptight, stuffy atmosphere…sorry, friend. You’ve come to the wrong place…We’re friends with our farmers and fishermen. We focus on heritage-raised meats from Colorado farms we know and respect… We serve a limited selection of fine, sustainable seafood and we source ingredients from local farms. It’s an honest approach to doing food right. (R.D7)

Here, they distinguish themselves as not being a “corporate restaurant” that sources from things: farms and fishing vessels. Alternatively, this restaurant sources from people: farmers and fishermen. They also make an appeal to tradition and heritage, with a focus on “heritage-raised meats” that have been bred and adapted for Colorado. By stating that they serve a limited selection, they create a sort of exclusivity by preferring quality over
quantity. The restaurant ends with a focus on honesty, which paired with the strong narrative of working with people creates an assumption that the whole process is honest and transparent, even though they do not provide very clear details. Moreover, ending with an assertion that there is a “right” way to do food heavily suggests that they and their guests believe there is a correct way to eat and have a strong opinion about it.

Butcher shops also defined their own practices against third-party certifications, choosing to focus on relationships:

We think buying locally from small farms is ‘beyond organic’, our farmers and ranchers go far beyond what is required for a certified organic farm and by not assuming the label they are able to keep prices down for premium meat (B.S.L1)

Going beyond organic is seen as beneficial. Organic is a bottom line, an established “good” thing in the world of non-conventional eating; by going above that, they are appeasing both those who think organic is enough and those who think organic is not enough. Similar to the previous example, a certification achieved through a third-party is simply a thing, a label, a claim. This butcher shop, however, works with farmers and ranchers doing more than what is required. Moreover, by working outside of this system, establishments are able to help the customer save money while doing the right thing.

Defining themselves as beyond Certified Organic or other claims that fit into the non-conventional beef discourse is a way for restaurants and butchers to show their commitment for both quality product and in defining their menu according to local availability. A restaurant group in Salt Lake City explained on two of its restaurants’ websites that:

‘Farm to Table’ is a trendy concept these days, with many restaurants claiming to use farm to table and local ingredients. We try to uphold this
concept fully -- meaning we do not simply source a handful of items from a local (or semi-local) producer when it's convenient, we aim for every item on our menu to be locally sourced, and often when the item is no longer available or in-season, we simply change our menu to offer something else that is. (R.S.L3)

Farm to Table is a concept that appears on many restaurant websites, and there is an assumption that this means working with local farmers and serving ingredients that are in season. However, this Salt Lake City restaurant group highlights that this claim can be used on a website but not upheld in practice. They are not like restaurants that feature a few local or “semi-local” farms when it is convenient. This implies that many restaurants may give up when it becomes too hard to source locally or seasonally. But unlike other restaurants they are willing to work through those barriers. This statement too is followed by a list of the purveyors that they work with.

In these examples, both restaurants and butcher shops set themselves and their practices apart by comparing and differentiating what they do with what other places may say or do. In this world of constructed significance, the consumer, the culinary professional, and the producer form an unbroken link, where everyone’s identity is being shaped by one another, with the culinary professional being the main link in establishing trust. They trust the producer, and the consumer should trust them. All are aligned in recognizing the same things as valuable; the customer wants to eat beef that came from an ethically raised cow. The chefs seek out ethically raised beef from the “pristine pastures of Wyoming” to restore the “ranching of our roots and find the best of “land and sea.”

These restaurants, butchers, and specialty shops are all marketing their relationships to the world of ethical beef production. The narratives constructed here
assure their guests that their ethical guidelines of what is "good," culturally defined as something that is authentic and traditional, are upheld at the establishment. The food being served has been sourced with the greatest of care, where the professionals ensure, animals “frolic” in the pristine pasture of small ranches providing the consumer of a healthful, high-quality, and sustainable experience.

**Discussion**

*Constructing good taste*

These results provide support for the hypothesis that websites, labels, and menus are designed to promote a meat philosophy. Ocejo (2014) defined a “meat philosophy” as an ideology of how one ought to eat meat and/or where meat ought to come from. When the labels in this study feature grazing cattle or menus feature ranch names that give the food a location (or a “face”) (Johnston and Baumann 2007), or when website narratives use phrases like “how nature intended,” “pristine Wyoming pastures,” and “friends with fisherman and farmers,” these boundary objects appeal directly to their consumer’s meat philosophy. These narratives and boundary objects also establish and refine a meat philosophy for potential consumers (Ocejo 2014).

By presenting their products as more traditional or authentic, or as the opposite of “faceless factory farms,” culinary professionals in these Intermountain West cities are culturally constructing an “honest approach to doing food right” (R.D7). When the consumer ultimately eats the beef, they are also consuming the story and their satisfaction is due to some extent to the process of symbolic consumption (Flint 2006). By focusing on ‘closeness to nature,’ ‘honesty, integrity or dedication to core principles’ and placing emphasis on distancing from industrial processes and commodity commercialism, these
food narratives distinguish culinary professionals and cultivate authenticity (Johnston and Baumann 2007).

This emphasis on authenticity is similar to conclusions reached by Johnston and Baumann’s (2007) research findings that “taste” in gourmet magazines was framed in terms of both authenticity and exoticism. Authenticity was conveyed through discursive strategies that emphasized, among other qualities, geographic specificity, personal connection, and historical connection. The construction of authenticity in the analysis presented here emphasizes a connection to place, be it labels that feature the Colorado Flag or brands such as “Utah’s Own,” or ranch names on menus, or stories highlighting personal journeys through ‘muddy fields’ and ‘restoring the ranching of [their] roots.’

Emphasis on personal connections to food and small-scale production practices were found on websites in this sample, with narratives featuring chefs growing their own vegetables, or working closely with purveyors and knowing and trusting their ranchers. Both of these narratives work together to create a sense of history and tradition (Johnston and Baumann 2007). In addition, by expressing dedication to maintaining these values with statements such as “we are committed” this adds to the construction of authentic qualities (Johnston and Baumann 2007).

The narratives do not have to explicitly state that they serve authentic food. Rather associations are made between product qualities claim (Weber et al. 2008). Similarly, authentic food is implicitly healthful food (Johnston and Baumann 2007). The philosophy of good food goes far beyond just healthfulness in terms of caloric intake and nutritional value, encompassing animal welfare and environmental sustainability (Harper and Makatouni 2002). With food, what is ‘good’ and ‘bad’ is constantly being
constructed by all the individuals involved in production and consumption (Goodman et al. 2010). When a website reads, “sustainable,” it is presumed to be the opposite of exploitation, and “natural” is the opposite of “artificial,” and “authenticity” means nothing was manipulated (Weber et al. 2008).

By relying on binary codes, such as natural vs. artificial, already held by consumers, a more nuanced message can be communicated (Eden 2009). For instance, by simply stating that they source beef only from humane sources, professionals are also eliciting where they do not get beef from: feedlots and slaughterhouses, while humane is painted as the way in which cattle were meant to live. Animal welfare can signal other attributes like safety of the product and overall healthfulness to consumers (Harper and Makatouni 2002). One ethical claim simultaneously signals other things and are utilized on many other platforms.

The results of this analysis reveal that one of the most prominent mediums for conveying these codes is the culinary professional website. Websites act as virtual storefronts to display core values (Johnston et al. 2009). The websites analyzed in this study were rich with narratives communicating values by establishing the knowledge and first-hand experience of culinary professionals. Culinary professionals are gaining greater credibility as sources of knowledge about food and specifically, what is right for the environment, the animal, and the consumer by taking on the different roles of a boundary object (Eden 2009). Culinary professionals take on the persona of an artisan chef full of “hard-earned skills, credentials, expertise, knowledge, education, professional experience and devotion to high-end food" (Johnston et al. 2014, p. 13) and establish themselves as a talking label (Barnes 2017).
Culinary websites convey stories featuring epic journeys and establishing strong commitments to ethical and environmental practices that go beyond what is normally expected. By taking on the role of nutritionist, cook, moral philosopher, and scientist, these professionals set the bar for their client on ethically good food (Barnes 2017). Most of the literature on chefs as boundary objects focuses on celebrity chefs, but these results demonstrate a distinct similarity between celebrity narratives and the narratives of the less famous professionals in this sample. Researchers have observed that chefs play a powerful role in modern food governance and transmit knowledge and encourage consumers to be better version of themselves, or "better food citizens" (Barnes 2017, p. 176). The use of storytelling was not only found on websites; food labels and menus in this analysis also rely on and advance food narratives. Although not as explicit as on websites, pictures of grazing cattle, and a connection to ranches give the beef a story.

The absence of labeling at butcher and specialty shops also advances a message, in that attention is going towards the relationship with the personnel behind the counter (Ocejo 2014). For instance, none the butcher shops examined in this analysis used labels for anything other than price, cuts, and in one case, the Colorado State flag. Without the labels, the story behind the brand becomes more important, which consumers obtain through conversations with butchers or may have read about via the website prior to visiting the establishment.

On menus, the observation that ranch names were more prevalent than location or any form of production standards suggests that stories are important and, similar to conclusions reached by Pirog (2004), the preferred way for consumers to receive new information. The lack of emphasis on location is a notable difference from other
prominent research on high-end food (Johnston et al. 2009). This difference suggests something particular and important about the culinary establishments in this study. When a consumer purchases a meal with beef from Snake River Farms, it can be interpreted, or decoded, as the opposite of a factory farm and further suggests transparency (Eden 2009). For many consumers, third party-certification lacks transparency and discourages them from buying the certified product (McEachem and Schröder 2004); thus, not using third-party certifications is potentially an intentional choice.

Analysis of craft butcher shops in the Rocky Mountain Region revealed that they too, go ‘beyond organic.’ Instead of displaying certifications, labels, menus, and websites focused on branding. For example, Niman Ranch does not only meet USDA requirement. With Canyon Meadows Ranch, the label on the packaging displays what their production standards are: no antibiotics, no hormones, and no animal by-products. In saying this, they are asserting that their brand is just as good as organic. The phenomenon of downplaying organic certification in favor of brands and personal relationships was also observed by Zepada and Deal (2009) and Ocejo (2014). Not using labels, or third-party certifications, furthers the idea that food is authentic, especially as trust in those institutions diminishes.

Limitations, implications and further research

It should be noted that a majority of the scholarship referenced in this discussion targets issues of food inequality, food justice, and/or critically examines the taste of the upper class elite (Johnston et al. 2009; Goodman et al. 2010; Johnston et al. 2011; Johnston et al. 2014; Ocejo 2014). The establishments used for this analysis are also high-end restaurants, craft butcher shops, and specialty stores, which cater to a more
affluent demographic. Although, this was part of the rational for their selection in this targeted sample, it also presents potential limitations to the generalizability of these results, which captures a limited construction of ethical eating.

Further, this study is not generalizable to larger populations due to a smaller target sample size focused on high-end establishments in the Rocky Mountain Region, and the qualitative approach employed. Moreover, a discourse analysis allows researchers to explore how meaning is constructed but without talking directly to consumers, we can only infer how consumers interpret these messages and their actual motivations behind purchasing.

More research on how culinary professionals and consumers view market alternatives would be helpful in fully understanding the motivations and constructions of consumers. Similarly, there may be disconnects between what websites advertise and the choices chefs and butchers actually make. Lastly, expanding this analysis to a larger sample including more cities and applying either quantitative or a mixed methods approach would allow for statistical analysis and generalizability.

**Conclusion**

This qualitative discourse analysis examines the narratives that non-celebrity culinary professionals construct for their guests through websites, labels (or lack thereof), and menus. These narratives present highly trained and skilled culinary professionals as boundary objects in order to communicate values to their customers. These professionals take on the roles beyond that of food service providers by telling stories that focus on actively searching for the best of land and sea, which positions them as trustworthy sources of credible information. This trust is also established by situating product claims
within larger trends, such as environmental sustainability, in a larger context that professionals are committed to upholding. Lastly, other standards such as animal welfare and healthfulness are communicated in order to establish credibility and trust that the institution shares values with customers. Taken together, these ideas promote an image of authenticity and tradition.

In order for new products to enter the market successfully, they must appeal to consumer values (Weber et al. 2008). Using words such as “local, humane treatment, and grass-finished” may be enough for a product to enter the market (Lim and Hu 2016). However, to truly succeed, products may need to be contextualized within a larger story that promotes the culinary professionals as boundary objects, so they are able to effectively communicate knowledge to potential guests that aligns with their values (Heerwagen et al. 2014). In a market where third party-certifications lack transparency, professionals need to define themselves against those standards. Simply putting a production claim on a label, menu, or website will not be nearly as effective as constructing a narrative based around authenticity and tradition, consistent with a ranching identity in the Rocky Mountain Region.

**Recommendations for practice**

These findings are important for understanding the specific context of specialty beef in the Rocky Mountain Region where researchers are hoping to introduce Rocky Mountain Legume-Finished beef. These results reveal that marketing strategies via labels, menus, and websites focus on branding rather than certifications. Brands, such as the name of the ranch or farm, carry with them an underlying trust that is constructed through narratives (storytelling) and pictures. In the Rocky Mountain Region, history and
tradition drive the appeal for authentic beef products. Therefore, it is more important to establish Rocky Mountain Legume-Finished beef as a brand that conveys authenticity and heritage. Specifically, labels should focus on the tradition of pasture finishing cattle rather than the scientific assessment of this system’s benefits. Also, this branding is more important than third-party certifications, which may prove a waste of time and money.

The data collected for this study also reveal that professionals have strict commitments to environmental and sustainable standards, as well as animal welfare. Again, this commitment is not shown through third-party certifications, but often through personal stories. Therefore, connecting the rancher to the professionals that are the target audience would prove a valuable endeavor. Also, the researchers involved in developed Rocky Mountain Legume-Finished beef should establish and rely on relationships with the ranchers they hope to encourage to commit some of their production to this method. Rather than attempting to establish a broad base of support, researchers may be more successful in cultivating a strong relationship with a small niche of producers/purveyors identified as particularly amenable based on their stated values and concerns. By establishing a strong relationship where the messaging of the product can be carefully and clearly articulated, information about Rocky Mountain Legume-Finished beef will spread to consumers who will likely then establish a larger demand for the product.

References


CHAPTER 3

“FROM A CHEF’S PERSPECTIVE, OR WHAT CAN I SELL ON THE MENU?”

EXPLORING CULINARY PROFESSIONALS’ ATTITUDES TOWARD NON-
CONVENTIONAL BEEF PRODUCTION AND BARRIERS TO ADOPTION

Abstract

Concern over the sustainability of beef production is leading to the introduction of
niche cattle-finishing systems such as pasture finishing on tannin-containing legume
crops as opposed to grain or grass finishing. In order to assess the economic viability for
ranchers to adopt these methods, the market of the final product needs to be assessed.
This research, situated in the diffusion of innovation framework, is aimed at
understanding the attitudes and values of culinary ‘innovators’ already working with
‘local’ or ‘grass-fed/finished’ beef. Twelve semi-structured interviews were conducted
with trained chefs and specialty butchers in the Rocky Mountain Region. This was based
on the hypothesis that these professionals operate as opinion leaders and understand that
the benefits of, and barriers to, implementation of their current meat program is crucial
for successfully introducing new products, such as Rocky Mountain Legume-Finished
beef. Interview analysis revealed that professionals struggle with how to be a
‘conscientious’ and ‘sustainable’ consumer while still providing a consistent product for
their customers. Although a few chefs spoke of setting ‘hard limits’ and ‘high standards’
for products, this did not emerge as a financial reality for other chefs or their customers.
In order for alternative sources of beef to be truly viable, beef production must address
both environmental and economic concerns, while providing a consistent product in
terms of taste and quality. Understanding concerns of culinary professionals allows alternative ranching and agricultural production methods to be tailored to and thus emerge as a viable agricultural practice for beef producers.

**Introduction**

Concern over the environmental, ethical, and health consequences of conventional beef production has increased significantly in last decade (Dudlicek 2015; Grannis, Hooker, and Thilmany 2000; Umberger, Thilmany, and Smith 2009). Opponents of conventional feedlot-finished beef production cite environmental degradation and animal welfare as primary reasons to switch to grass-finished production. Grass-finished beef is not without its flaws; for instance, the reported mean age at slaughter for grass-finished and grain-finished beef is 679 vs. 440 days, respectively. Thus, grass-finishing takes about 50% longer, indicating inefficiency as a barrier to grass-finishing (Capper 2012). Also, sustainability is often measured in beef production in terms of greenhouse gas CO₂ equivalents. Whereas, more sustainable cattle production options will need to also address ecosystem services and animal welfare concerns as well as get greater output for less inputs.

Researchers at Utah State University, under a United States Department of Agriculture (USDA) Agricultural and Food Research Initiative Grant, are studying the potential benefits of finishing cattle on tannin-containing legume forages (MacAdam and Villalba 2015). In this finishing system, cattle reach a slaughter weight in a similar timeframe to grain-finished cattle, whereas perennial legume crops can be grown on less agriculturally valuable land than corn and this improves overall soil health through nitrogen fixing and eliminates the need for synthetic fertilizers (MacAdam and Villalba
Moreover, the tannins increase ruminate efficiency and reduce methane emissions (MacAdam and Villalba 2015). However, in order for this finishing system to truly be a viable solution, demand for the product must exist. The research presented in this chapter is aimed at assessing the potential demand for beef from cattle finished on tannin-containing legume forages through interviews conducted with high-end restaurant chefs and craft butchers in the Rocky Mountain Region.

This research utilized a methodology based on the Diffusion of Innovation theoretical framework. Interviews were conducted with culinary opinion leaders in the alternative beef markets of Salt Lake City and Park City, Utah and Denver, Colorado. Due to previous research that identifies high-end urban chefs and butchers as culinary innovators (Flint 2006; Inwood et al. 2009; McKitterick et al. 2016) and the locality of this production method (MacAdam and Villalba 2015), research efforts were focused on these individuals and areas specifically.

By understanding both what is important to culinary professionals in the beef products they want and the barriers they experience in getting those products, new products, such as beef from cattle finished on tannin-containing legume forages, can be attenuated to address those preferences and avoid those barriers. Furthermore, this research explores how these professionals receive and communicate information; new products need to adhere to the concerns and desires of potential product adopters, as well as be communicated effectively.
Butchers and chefs as culinary opinion leaders

Butchers and chefs often operate as influential opinion leaders, or role models in their field, in promoting (or discouraging) new culinary trends (Inwood et al. 2009; Ocejo 2014). For instance, Ocejo (2014) reported on the important role of craft butchers and counter workers in shaping consumers’ meat purchases in New York City. Similarly, research aimed at understanding reflexive consumers’ food choices described how local butchers elicited a sense of trust with customers (Johnston, Biro, and MacKendrick 2009; Zepeda and Deal 2009). Along the same lines, Inwood et al. (2009) focused on the culinary community in Ohio to explain how chefs work as opinion leaders, in regard to local food, amongst others in the culinary field as well as their customers. Inwood et al. (2009) discovered demographic similarities between chefs working at restaurants that primarily serve local food, as well as their perceived barriers and benefits to serving local food. Furthermore, Inwood et al. (2009) outlined common ways in which restaurant personnel communicated to their consumers about products, e.g. menus and wait staff (Inwood et al. 2009). However, without conducting customer interviews with those who ate at the restaurant, they were unable to conclude how effective these modes were in influencing costumers’ individual purchasing habits outside of the restaurant (Inwood et al. 2009).

Many researchers have targeted chefs when promoting the adoption of specific food products. For instance, Lendway, Hesse, and Marquart (2014) targeted chefs to promote whole-wheat grain consumption, while Romero del Castillo et al. (2014) enlisted chefs to design marketing schemes for the penjar tomato. Directly marketing to chefs has
also been used to promote the adoption of culinary concepts such as local food (Curtis and Cowee 2009; Kelley et al. 2001; Radder 2002; Sharma, Moon, and Strohbehn 2014; Stierand 2015). Therefore, adding the Diffusion of Innovation framework allows the opportunity to examine specialty meat adoption by opinion leaders, or early adopters, in the culinary field.

**Theory: Diffusion of innovation of culinary trends**

Culinary leaders construct food meaning through their communication about products and they are key in understanding how new products are adopted and diffused (Flint 2006). Diffusion of Innovation, proposed originally, by Rogers (1995), explains how new ideas are communicated over time between different members of a social system. Rogers (1995) argued that innovations are adopted in waves starting with innovators, who are generally somewhat more marginalized members of a community, where the cost of trying and failing is lower or benefits and success are marginally higher. Thus, innovators are often not opinion leaders, who are usually in a more connected social position to promote trends (Al-Swidi et al. 2014; Inwood et al. 2009; Smerecnik and Andersen 2011). Early adopters are able to act as opinion leaders having more authority to establish ideas than innovators and thus are often the culinary professionals targeted in culinary Diffusion of Innovation work (Barnes 2017; Inwood et al. 2009). In doing so, the motivations behind the decision to adopt or not adopt can inform salient ‘codes’ for product diffusion (Weber, Heinze, and DeSoucey 2008).

Gomez and Bouty (2009) identified three different types of culinary innovators: exploratory or Avant guard, minimalist, and classical. Further, Gomez et al. (2003)
explored how personal experiences, training, knowledge of norms and reflexivity combine to make innovative chefs. Based off these definitions, Albors-Garrigos et al. (2013) explored what specific characteristics make innovative chefs in Michelin Star Restaurants in Spain. In their sample, innovative chefs served classical or Avant guard, haute cuisine, possessed basic culinary skills, worked closely with others, including wait staff to maintain a high level of table service, and took brand management of themselves and the restaurant very seriously (Albors-Garrigos et al. 2013). Interestingly, Michelin chefs are likely not marginalized members of society, calling into question if innovators in the culinary field subscribe to the definition of an innovator set forth by Diffusion of Innovation. This may suggest that innovative culinary professionals can also serve as opinion leaders and perhaps early adopters. However, identifying innovators and/or early adopter is only part of the diffusion of innovation framework.

Every individual enters the innovation-decision process with a preexisting set of values and social contexts where the characteristics of the innovation are constantly being assessed (Rogers 1995). These characteristics, referred to as the perceived attributes of an innovation, are: relative advantage, compatibility, complexity, trialability, and observability (Rogers 1995). Relative advantage to adopting an innovation can be measured in economic or social means, while compatibility refers to the way the innovation fits into existing values and ways of doing things. Complexity suggests that innovations need to be relatively simple to understand and innovations need to be available to try for a period of time before fully committing (trialability) (Rogers 1995). Lastly, the benefits associated with the innovation need to be observable to others (Rogers 1995).
Innovation adoption of practices among culinary professionals is rooted in creativity and working with new materials and products (Ottenbacher and Harrington 2007). Success of the innovation adoption relies on the chefs’ skills (Ottenbacher and Harrington 2007), as well as their reputation and ability to disseminate innovations through marketing (Svenjenova, Mazza, and Planellas 2007). This aligns with research conducted by Inwood et al. (2009) that found chefs who were able adopt innovations rooted in the local food movement, worked at high-end restaurants and had autonomy to be creative with new ingredients. The success of these adoptions and diffusion to customers was linked closely with wait staff by both Inwood et al. (2009) and Dragon (2016). Specifically, chefs were identified as a ‘key figure[s]’ within the successful diffusion of grass-fed beef as a culinary trend (Weber, Heinze, and DeSoucey 2008).

Diffusion of innovation has also been applied to understand how innovations or trends spread from chef, to wait staff, to consumers (Dragon 2016; Inwood et al. 2009; Pirog 2004). Further, it has been used to examine the role of chefs as opinion leaders in constructing meaning for clients (Barnes 2017; Sharma, Moon, and Strohbehn 2014). However, benefits and barriers to adoption exist. Price, consistency, and availability were all identified as barriers to adopting alternative food practices i.e. local produce or beef (Curtis and Cowee 2009; Inwood et al. 2009; Sharma, Moon, and Strohbehn 2014).

Similarly, culinary professionals may not perceive a demand from their clientele or fear customers will not enjoy new products or dishes, therefore reducing any perceived advantages (Lendway, Hesse, and Marquart 2014; Ottenbacher and Harrington 2007; Radder, 2002). Moreover, culinary professionals, acting as opinion leaders, can engage with service staff to communicate new trends along the diffusion’s bell curve (Pirog
2004) or social media to further their branding (Clarke, Murphy, and Adler 2016). The Diffusion of Innovation framework served as the theoretical background for this research methodology in order to understand the social construction of specialty beef products by culinary opinion leaders. This theoretical framework informed the following research questions:

**Research questions**

What role do chefs and butchers play in constructing and communicating specialty beef trends?

- What are the most salient benefits associated with emerging specialty beef trends?
- What potential barriers exist in the adoption of specialty beef trends?

**Anticipated results**

Based on the Diffusion of Innovation framework, predictions can be made about what findings will emerge to answer to these research questions. It is anticipated that these culinary opinion leaders will fall into one of three established categories: Avant guard, minimalist/simplistic, or classical. Moreover, they will likely work to establish and create a brand for themselves that aligns with this style.

When deciding to adopt a new innovation, individuals must perceive the benefits, or relative advantage, to outweigh any barriers. Previous literature suggests that culinary professionals adopt products when it aligns with their values and appears to be both culturally and economically advantageous (Inwood et al. 2009; Ocejo 2014; Sharma, Moon, and Strohbehn 2014). Alternatively, potential barriers identified by others include financial burden, consistency, availability, and how compatible it is with their current
system (Curtis and Cowee 2009; Lendway, Hesse, and Marquart 2014; Maynard, Burdine, and Meyer 2003; Radder 2002). Therefore, we can predict that relative advantage and compatibility may be more important in innovation adoption for culinary professionals than complexity, trialability, and observability.

Lastly, culinary professionals working as opinion leaders communicate trends in two key ways. The first is through wait staff who able to engage with consumers more closely. The second is through different media outlets, such as social media.

Methods

In order to explore the role culinary professionals as opinion leaders play in the diffusion of innovation by constructing and communicating beef trends, as well as to evaluate perceived barriers and benefits to adoption of new beef products, a series of qualitative, semi-structured interviews were used to gather information on butchers’ and chefs’ in the Rocky Mountain Region. Specifically, Park City and Salt Lake City, Utah, and Denver, Colorado were chosen as sufficiently large municipalities with an established culinary market surrounded by semi-arid rangeland traditionally used for beef cow-calf production and irrigated pastures used for finishing cattle on tannin-containing legume forages.

Data collection

Butcher shops and butchers

Qualifying butchers were identified in each of the three target cities by performing an internet search in the search engine Google Maps for: “butcher shop” + “Salt Lake City,” “Park City,” and “Denver” (Google Maps 2016). This returned nine
results. Butcher shops were excluded if they focused only on non-beef products which was determined by visiting the website and looking at the products that they sold. For example, one butcher shop focused only on pork sausages. Excluded further were shops that focused primarily on processing game meat. Chain stores were excluded, as were butcher counters at supermarkets if they did not sell alternatively produced (grass-finished or natural) beef.

Butcher shop websites making it past this initial screening were then examined to assure that they were marketing “local,” “grass-fed,” or “alternatively produced beef.” This information was either found on the home page, the “about” page, or by looking at the cuts they sold. This same process was done for Park City, Utah, which yielded three results, none of which were included as the only one featuring alternative beef was already included in the Salt Lake sample (where the shop is located). When applied to Denver, the search initially resulted in twenty locations, many of which were shops featuring conventional beef products, *carnicerias*, sausage focused shops, or wild game processing plants. Further, businesses with several locations only have one website, as was the case with two of the final three butcher stores and shops making it into the final sample.

*Restaurants and chefs*

In order to identify qualifying chefs in the Rocky Mountain Region, restaurants were drawn from a larger list of restaurants participating in the Utah-Farm-to-Fork and Colorado-Farm to-Table programs, as they already had an emphasis on sourcing local produce and proteins. To assure the accuracy of these lists, a Google search was performed to make sure they were still in business. To account for any restaurants that
had opened since the lists had been made, a search for “Best Local Restaurants” and “Best Steak Houses” and “Best Grass-Fed Beef” were performed in Google to find travel website recommendations or review sites, such as Yelp (Best Grass-Fed Steak in Denver 2017). All restaurants that were still open were added to the list.

The restaurants’ websites were then visited to assess if they mentioned local products/proteins or served grass-fed beef or alternatively produced beef. In order to be included in the sample, one of the following criteria had to be met:

- Included “local” in their mission statement or “about” section
- Featured grass-fed beef in their mission statement or “about” section
- Featured grass-fed or other novel beef production method on the menu
- Included location-specific details about their beef

If the restaurant did not meet these criteria, it was excluded from the sampling frame. This resulted in a sample list of thirty restaurants and butcher shops.

Restaurants were then contacted either by e-mail (if available on their websites), phone, or in person. If a chef or butcher did not respond after four attempts to make contact, they were dropped from the sample. The resulting sample was comprised of butchers and chefs who responded most promptly to the request for an interview. They were chosen on the basis that this exploratory research was aimed at understanding the motivations of individuals who are excited about new products and would be most willing to adopt new innovations. The professionals who responded the most quickly and enthusiastically fit this description. Interviews were conducted either in person or over the phone depending on what was easier to facilitate for participants. Interviews were
conducted until the sample was exhausted and no new themes were emerging resulting in thirteen interviews altogether.

The interviews took place between October of 2017 and January of 2018, in accordance with the Institutional Review Board at Utah State University (Appendix B). Butchers and chefs participated in semi-structured interviews with both closed and open-ended questions regarding what certifications or product claims they prefer, and what beef cuts they currently use and are interested in using. They were asked to comment on the National Restaurant Associations’ prediction that the top trend in 2017 was going to be “New cuts of meat.”

Lastly, to identify what qualities of Rocky Mountain Legume-Finished beef they found most intriguing; participants were given a list of product claims to rank in order of importance to them. The list included: soil health, reduced greenhouse gas emissions, pasture raised, quality grade, marbling scores, and Utah or Colorado Raised (Appendix C). If the interviewee was willing, the interview was recorded, and later transcribed (Appendix D). One full interview and half of another interview were not recorded due to malfunctioning of the recording device. To account for this possibility extensive notes were taken during all interviews capturing the main points of their responses.

Analysis

Thematic analysis is an analytical method in qualitative research that examines data to find repeating themes (Braun and Clarke 2016). This inductive thematic analysis took six steps: familiarization with the data, creating initial codes, compiling themes, reviewing and then naming those themes, and writing the final report (Braun and Clarke
To assure the systematic handling of these data, a 15-point checklist provided by Braun and Clarke (2016), outlined in Table 3.1 was followed.

**Table 3.1** Braun and Clarke’s (2016) 15-Point thematic analysis checklist.

<table>
<thead>
<tr>
<th>Process</th>
<th>No.</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transcription</td>
<td>1</td>
<td>Data has been transcribed and checked against recordings for accuracy</td>
</tr>
<tr>
<td>Coding</td>
<td>2</td>
<td>Each data item has been given equal attention in the coding process</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Themes are generated not from a few examples but through inclusive and comprehensive coding</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Relevant extracts for each theme have been collated</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Themes have been checked against each other and back to original data</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Themes are internally coherent, consistent, and distinctive</td>
</tr>
<tr>
<td>Analysis</td>
<td>7</td>
<td>Data has been analyzed – interpreted, made sense of – rather than just paraphrased or described</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Analysis and data match – the extracts illustrate the analytic claims</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>Analysis tells a convincing and well-organizes story about the data and topic.</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Good balance between analytic narrative and illustrative extracts is provided</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Enough time has been allocated to complete all phases of analysis adequately</td>
</tr>
<tr>
<td>Overall Written Report</td>
<td>12</td>
<td>The assumption about, and specific approach to, thematic analysis is clearly explicated</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>There is a good fit between what you claim you do, and what you show you have done – i.e., described method and reported analysis are consistent</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>The language and concepts used in the report are consistent with the epistemological position of the analysis</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>The researcher is positioned as active in the research process; themes do not just ‘emerge.’</td>
</tr>
</tbody>
</table>

(Braun and Clarke 2016)

The results of this thematic analysis resulted in five major categories: participants’ self-defined style, preferences, barriers to adoption, overcoming barriers, and relationship with customers. Although, these represent the focus of the interviews, the themes that are included in each section occurred throughout the interviews and not just in response to questions inquiring about that topic. The results of the analysis are structured as follows in Table 3.2:
Table 3.2 Outline of analysis.

<table>
<thead>
<tr>
<th>Section Heading</th>
<th>Section Context</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Simple, Seasoned, Cooked to Perfection</strong></td>
<td>Participants define personal and restaurant style</td>
</tr>
<tr>
<td><strong>2. Participants’ Preferences</strong></td>
<td></td>
</tr>
<tr>
<td>2a) As a Responsible Use Chef</td>
<td>Participants’ concern vs. taste</td>
</tr>
<tr>
<td>2b) I’m Personal with all my Ranchers</td>
<td>Participants’ relationship with ranchers</td>
</tr>
<tr>
<td>2c) We Were Never Going to Require Organic</td>
<td>Participants’ opinions on third-party certification</td>
</tr>
<tr>
<td>2d) Sustainable Means…</td>
<td>Participants’ definition of sustainability</td>
</tr>
<tr>
<td><strong>3. Barriers to Adoption</strong></td>
<td></td>
</tr>
<tr>
<td>3a) I Can’t Even Get the Product I Want</td>
<td>Lack of product availability</td>
</tr>
<tr>
<td>3b) It’s a Volatile Ingredient</td>
<td>Financial barriers</td>
</tr>
<tr>
<td><strong>4. Overcoming Barriers</strong></td>
<td></td>
</tr>
<tr>
<td>4a) We’ve Bled So Much</td>
<td>Working hard up front</td>
</tr>
<tr>
<td>4b) In Europe…</td>
<td>Appeal to a European system</td>
</tr>
<tr>
<td><strong>5. Relationship with Customers</strong></td>
<td></td>
</tr>
<tr>
<td>5a) Sometimes you’re just a New York Strip Girl</td>
<td>Participants’ perceptions of customer’s wants</td>
</tr>
<tr>
<td>5b) From my Perspective or My Guest’s Perspective?</td>
<td>Difference between customers and participants</td>
</tr>
<tr>
<td>5c) The Front of House Spiel</td>
<td>Communication regarding sourcing</td>
</tr>
</tbody>
</table>

**Results**

Participants’ motivation for purchasing beef are complicated, full of conflicting priorities and internal values, as well as with concerns for the values and priorities of their consumers. The excerpts and quotes included below represent the overarching themes that occurred in the interviews. Chefs’ perceptions of beef include a split between environmental or animal concerns and taste, relationship with producers, opinion of third-party certifications, and ‘sustainability.’ Barriers to adoption addresses concerns about consistency, pricing, and quality, while overcoming barriers explores the amount of work done up front, utilization of “off” cuts and an appeal to European manufacturing standards. Lastly, this analysis explores professionals’ relationships with their customers and the use of service staff to transmit knowledge.
Before moving further, it should be noted that the exercise in which participants were asked to rank the qualities of Rocky Mountain Legume-Finished beef, was not conducted consistently. This was due to the fact that many participants opted for phone interviews and did not remember the number or the list fully enough to rank. Instead, they discussed what characteristics they found to be important as a whole, instead of ranking. When the interviews were conducted in person, most participants were unable to rank them and rather grouped them together. Because of this, the results from this exercise are throughout the analysis, as themes emerged in that inquiry similar to those at other parts of the interview.

1. Simple, seasoned, and cooked to perfection

Early on in the interviews, the participants were asked to define their cooking style, be it personally or the restaurants’ style, as well as comment on if they viewed themselves at the cutting edge of culinary trends. When asked the first question, a clear theme emerged in that the participants were focused on high quality, fresh ingredients. For one chef in Denver he explained that his restaurants’ style, focused on “whatever is the bounty around us. We are ingredient focused over technique” (Interview Ten).

Similarly, a chef in Park City explained his cooking style as, “Pretty bold, in the fact that I like to use less ingredients, but more powerful flavors and ingredients” (Interview One).

The sourcing of ingredients was also described when asked about style, participants used terms like “farm to table” and “seed to plate.” Moreover, seasonality was brought up, “I mean, uh, the restaurants’ style is American Cuisine focused on local
sustainable practices. And we make everything in house” (Interview Three). Here, the theme of American cuisine presents itself; being used in several other interviews.

One chef explained his personal style as “meat heavy” but the restaurant was more “New American” (Interview Eight), while another described New American as being “California Cuisine” a sort of melting pot (Interview Ten). However, despite the specifics of their answers, a larger overarching theme emerged as to how participants viewed their style. The head chef at a steakhouse featuring grass-finished beef summarized this best; “I would just call it simple, seasoned, and well cooked to perfection” (Interview Thirteen).

Similarly, when asked if they identified themselves on the cutting edge of culinary trends, most participants – regardless of where they viewed themselves – expressed a push towards a more holistic or traditional simple way of doing things. A butcher at a restaurant in Salt Lake City explained,

“We are not necessarily the cutting edge. We try to keep things relatively simple while maintaining a more refined flavor pallet and stuff like that, if that makes sense. We are trying to create interesting food but not unapproachable food. We’re not trying to do any molecular gastronomy, or any kind of fancy foams, and things like that” (Interview Eleven).

Another chef expressed a similar sentiment explaining that he did consider himself on the cutting edge but it was not because he was doing molecular gastronomy (Interview Thirteen). One chef described this appeal to a simple way of cooking, as “the exact opposite of [cutting edge] but trying to go back to the way things were done a hundred years ago” (Interview Four). For him, this meant having relationships with his producers and sourcing mixed greens from one of his employees. Conversely, one chef described how growing his own salad greens was in fact what made him “cutting edge.”
Several chefs did not know how to answer the question, with one asking a sous-chef, “Are we cutting edge?” (Interview Ten) and another chuckling and recalling how maybe seventeen years ago when she started her business she was cutting edge but now everyone is doing “local and blah, blah, blah” (Interview Two). One chef responded that “cutting edge was kind of hard to define these days” explaining,

“I think it’s gotten away from what’s so cutting edge to more a focus on personal style. You know that’s really kind of what I think people go after…that’s what makes the restaurant kind of, that’s what makes what you do unique…no one can replicate what your personal style is. That’s kind of your fingerprint for the whole operation” (Interview One).

Nevertheless, regardless of where they placed themselves on the range of cutting edge, they once again prioritized and articulated simple ingredients.

2. Chefs preferences

One of the questions this research explored was participants’ preferences and perceptions of different specialty beef products. This centered on concern for environmental or animal welfare issues while still providing a product that meets their standards. In order to do this they develop relationships with their ranchers, producers, and purveyors, turning to them instead of third-party certifications to achieve sustainability goals.

2a) As a responsible use chef

When expressing what qualities they looked for in beef, participants expressed what one chef described as a “double answer” to a “double question.” Specifically, he approached the question as both a “consumer” and a “responsible use chef.” As a “responsible use chef,” he emphasized his preferred taste profile as follows: “beef flavor,
almost a kind of nuttiness, and a little minerality” (Interview One). However, in taking on a consumer role he was interested in “sustainably raised and humanely treated” (Interview One).

Frequently, participants divided desirable traits between taste profiles and environmental concern. When asked to identify what qualities they considered when purchasing beef, two line cooks explained that environmentally they were concerned with soil health, pasture finishing, and reduced greenhouse gas emissions, while from a taste perspective they preferred locally raised and marbling (Interview Two).

For some participants, opinions expressed about beef flavor and quality were at odds with their environmental concerns. For example, two interviewees explicitly talked about not enjoying grass-finished beef although they perceived benefits to it. One chef reported that he simply was just “not a fan of grass-fed [finished] beef because of the flavor profile” and despite perceiving favorably the reduction of methane gases commonly associated with a grass-finished system the “flavor profile is not where it needs to be” (Interview Seven). Similarly, a butcher at a high-end restaurant explained:

> Just in general, in like in the past, the grass-fed beef that I’ve had, I guess I find it to be too iron-y... that being said, just overall, they are ruminant animals and they’re supposed to be getting grass. So...it makes sense that they should be grass-fed. So...it’s kind of a tough balance because the grain-fed stuff is just... nicer beef, just tastier beef. But...it’s kind of difficult to, for me, just because I have been kind of going more vegetarian and avoid eating meat as much as possible. (Interview Eleven)

Here, a professional whose job is focused heavily on the preparation of meat has adopted a more vegetarian diet for what appears to be an inability to reconcile what tastes good with what “makes sense.” However, despite the type of finishing systems
professionals’ preferred, their relationship with ranchers, even with grain or corn finishing, were of importance.

2b) I’m personal with all my ranchers

The relationship between participants and their ranchers, purveyors, and processors, emerged in the interviews. Participants identified that these relationships allow for culinary professionals to see firsthand how the product they are serving is raised, as one chef and butcher explained, “I’m personal with all of my ranchers. I know exactly how all of my meat was handled before it comes to me” (Interview Three). When asked where they received information regarding product claims, the answer usually involved knowing the ranchers. One chef explained, “it’s kinda hard to get to the root [of a product claim] sometimes unless you visit the farm and go from there” (Interview Nine). Visits allow chefs and butchers to personally evaluate product standards:

I’m more of a show me kind of guy…I mean if I’m going to use your product chances are I’m paying your farm a visit. So, I kind of work on those standards. I don’t necessarily take things at word. (Interview One)

The butchers in the sample spoke specifically about growing their business alongside their ranchers, working with them to create a consistent quality product. However, one butcher worked through a processor that provided him with beef from a co-op of small ranches. Similarly, he described how the owner of the processing plant knew his standards and was effectively able to supply him with beef that came from suppliers that met those standards.

Several interviewees mentioned their relationship with product vendors when asked where they got information about the products they used. One chef described how
he sat down with his meat vendor to develop menu items featuring beef, with financial sensibility and taste being a “driving factor” (Interview Four).

Starts with not compromising with what I put on the plate. I could do to the commodity beef and put a comparable product on that plate, but it doesn’t have the same backstory, doesn’t have that same history, doesn’t have that same relationship (Interview Four).

This chef trusted the vendor to deliver him a product that met his standards and created a link between him and the rancher. In this, personal relationships were mentioned more as source of information than third-party certifications.

2c) We were never going to require certified organic

Going deeper into how personal relationships were valued more highly than third-party certifications, as one chef clearly stated, “I really don't look for certifications. It all has to deal with personal relationships” (Interview Twelve). Participants recognized the cost associated with getting certified by a third party, and even if they would prefer all producers had a third-party certification they do not require it. A butcher in Denver explained, “So we decided a while ago that we weren’t going to require…we were never going to require organic certification because I actually think their animal welfare standards are complete crap” (Interview Five). Similarly, a chef who grew up on a farm in Iowa values the humane treatment of animals, but did not require the small farmers he sources from to achieve these certifications:

But really, I mean when I’m working with smaller farms, I’m not really worried about how they treat their animals as much as some of these larger corporate farms…I grew up on a farm and I know how small farmers, how they treat their animals. Um, so I’m not as concerned with the small guys being humane certified. I know that like 99 percent of the time, they’re like family pets a lot of the time on a small farm. (Interview Eight)
The cost associated with certifications was a concern for participants. One participant stated that it was “bullshit” that organic farmers had to pay “twenty thousand dollars to get certified” (Interview One). While a butcher in Denver who prides herself on sourcing only grass-finished beef admitted that in an “ideal situation all of our ranchers would be American Grass-fed Association (AGA) certified” but in reality, only about “three quarters of them are” but she recognized that labels, such as AGA, can be “cost prohibitive for farmers and ranchers” (Interview Five).

Participants use their relationship with ranchers to work outside of third-party certifications. They not only distrust what exactly a certification means, but they do not expect small scale producers to pay the fees associated with the certification. In all of the interviews no one stated that they would source only third-party certificated products. It was only mentioned as an ideal situation but was not relied upon to meet their sustainability goals.

2d) Sustainable means nothing more than doing the right thing

The theme of sustainability came up six times, unprompted in the interviews. As per the research protocol, when ‘sustainability’ came up in interviews, participants were asked to define it. The use of sustainability came up in relation to different questions at different times in the interviews and it became clear that it meant different things to different people, from ethics, to carbon output or overall ecosystem health.

For instance, one chef explained, after first mentioning sustainability, “You know you throw the word sustainable out there. I mean, you know people have turned it into something that’s, that’s kind of crazy, right? Sustainable means nothing more than just
doing the right thing” (Interview One). For him, this meant that if beef is producing mass amounts of methane, “it is not right” (Interview One). Moreover, putting cattle in feedlots where “it’s walking around in its own stuff up to its knees ninety percent of its life” is not right either (Interview One). He simplifies it, to just asking himself, “Am I doing the right thing” (Interview One)?

For another chef, finding ranches to source from that use animal welfare standards and “never ever programs” (never ever programs being that there are no hormones, antibiotics, or GMOs ever used) is “part of the hunt” (Interview Seven). However, when reflecting upon the residual pollution and contaminants left behind by ranching and farming, he mentioned the importance of sustainability. When asked to define “sustainable” he responded, “leaving no footprint is basically sustainable to me. Close to biodynamic, but that's a little unrealistic in a lot of farming.” (Interview Seven).

Another participant used his experience as a bee keeper to define a sustainable model of production: “you’re not going to pull more honey out and sacrifice the hive, for just taking honey for the morning” (Interview Nine). However, this was followed by a caveat that people “and by people, [he] means the guest are actually [willing to] pay for [the sustainable product]” (Interview Nine). This uncovers a much larger theme discussed later in this analysis focusing on what consumers want, and if customers are willing to pay for “sustainable” beef.

Participants strive to make sustainable decisions and not compromise their vision for more sustainable food systems. In Denver, this vision was the motivation for one participant becoming a butcher:
I was very interested in seeing if I could help create a more sustainable agricultural system in regards to livestock here in Colorado. ...I think you see a lot of that happened in the northeast…where you also see, you know, fields that are predominantly clover and pastures that look more like lawns. And I was interested to see if we could sort of enact that here…in a much drier climate, in a high desert. so that’s kind of what got me into it {running a butcher shop} … I am motivated by restoring native grasslands. (Interview Five)

Regardless of motivations or passions, culinary professionals are concerned with sustainability. They strive to “do the right thing” considering the animal’s welfare, carbon footprint, and environmental degradation. However, it comes at a price that guests must be willing to pay. And further, despite best intentions, they recognize that getting the product they truly desire is not always possible.

3. Barriers to adoption

Oftentimes culinary professionals cannot access the product they want, or they have to make compromises. The most common barriers to adoption involved availability, consistency, and expenses for both ranchers and the culinary professional participants. The following section explores these themes in more depth, providing insight to the structural boundaries in which beef purchasing decisions are made.

3a) I can’t even get the product I want

When asked how easy it was to get the product he desired, one chef in Denver, who was raised in Iowa and has a passion for corn-finished beef laughed and said: “Oh, I can’t really even get the real product that I want” (Interview Ten). He explained how “big corporate farms have taken over to the point where you can’t even really afford to use the smaller farmers at the restaurants” (Interview Ten). Currently, he was sourcing his beef from Aspen Ridge, the natural beef brand of the giant meat packing firm. Beef from
Aspen Ridge currently costs him twenty dollars a pound, causing him to price his 24 oz. ribeye at $120.00. Despite the desire to source from smaller farms, buying a more expensive product would be more costly for the restaurant and the customer.

Another participant who sources grass-finished beef from New Zealand expressed a desire for an “American product” but he could not get the quantity and quality he needed consistently (Interview Thirteen). Culinary professionals have many things to consider when creating a beef program and need to make financially sound decisions that also allow them to provide a consistent and quality product for their consumer. In addition, for a few in this small sample the options are not available.

A chef in Salt Lake, who currently purchases beef from Costco, despite locally sourcing other proteins and products, explained:

When we first opened, I had these ranchers from somewhere within an hour of here who brought me beef and it was the most amazing beef, marble, flavor, everything and then one day they crunched the numbers and decided it wasn’t worth it and they stopped. And that’s happened with me a lot on finding meat, locally…you know when those boys walked in and you know they in, to deliver the beef, they all had their cowboy hats on, and I think they were very proud of their meat and they should’ve been. (Interview Two)

Structural boundaries such as price, consistency, and availability prevent some participants from being able to get the product they want. However, even when sourcing from a preferred source, cost can be an issue. The main themes that emerged in regard to professionals not being able to get the product they wanted centered around price and consistency.
3b) It’s a volatile ingredient

Although some are able to get preferred products, beef is still an expense. As one chef expressed, “We’re a small restaurant so beef is one of the most expensive things that we buy and it’s a volatile ingredient. It goes bad” (Interview Four).

Moreover, butchers included in the sample were concerned by the amount of time it took cattle to get to slaughter weight. A butcher in Denver perceived that what discouraged people from purchasing grass-finished beef was the cost was sometimes 50% more (Interview Six). Another butcher who only sourced grass-finished beef specified:

I mean, you’re looking at an average cost per pound hanging weight, cold on grass-fed beef across the country, somewhere between $4 and $5 a pound, which is a lot, you know, that means that to sell anything it has to be a minimum of $10 per pound, which is a really high entry point (Interview Five).

Beef is expensive when working outside of conventional systems and there are uncertainties in how cost effective it will continue to be for both culinary professionals and ranchers. “Boxed meat really changed the game,” a butcher explained, “and it’s just a matter of these guys being able to make enough money by doing it the way we deemed necessary and making the money for them” (Interview Six). However, some participants mentioned ways in which they dealt with identified barriers.

4. Overcoming barriers

Barriers were overcome in several ways. Specifically, interviewees mentioned work up front, persisting through failure, and financial sacrifices. Also, participants utilize lesser known cuts that are cheaper than prime cuts. Finally, participants spoke of ways in which they would change how they were doing things to adhere to a more European production system.
4a) We have bled so much

The “sustainable use” chef mentioned previously explained that creating a beef program that aligned with his values but also appeased consumer palates was “a lot of work up front.” Although, admittedly, “you’re going to fail all the time” but as long are “you’re committed to the calls, are committed to changing things or doing better… [and] committed to the legwork up front…everything falls in place” (Interview One). Doing the right thing therefore, is not easy. The Denver butcher passionate about grass-finishing explained:

They [other professionals] don’t want to stop using Sysco… and they don’t want to bleed. And like my experience running a business, is that we have bled so much because of what we wanted. And people aren’t willing to stay the course with that to try to make it work or they don’t have enough money in the bank to do it. They didn’t plan well enough. (Interview Five)

Further, participants overcame financial barriers by utilizing lesser known beef cuts. Interviewee One explained that when he started out in the business “you could get short ribs for under three dollars a pound, and they’re quadruple that now.” He then decided to start buying half steers and uses “some of the craziest cuts out there” (Interview One). A butcher in Salt Lake City explained that “utilization of the whole animal isn’t reinventing the wheel” (Interview Twelve). To him, it was both cost effective and a great way to get people to understand “the reality of big farming in America” (Interview Twelve). This is similar to a Denver chef’s opinion that consumers need to unlearn “unrealistic perceptions” that an animal “is not going to be the same every time” (Interview Four).
Although a consumer must be willing to purchase their product, participants are working to change perceptions as to what cuts should be valued and what can be expected from an animal. “The more tender something is people think that they’ll pay more money for it, but if they understood where flavor was, I could charge more for things outside of filets, if it was just based on that rating” (Interview Six). However, the recognition about utilizing more of the animal leads into another emergent theme, which is an appeal to a European way of doing things.

4b) European style butchery

In several of the interviews an appeal to a European style of doing things was mentioned. This referred specifically to the butchering of the animal. For example, any cow kept alive for over three years has to have its spinal cord removed. However, in the United States the spinal column is cut out. A Denver butcher explained, “the spinal column removal and all of that and excuse my language. Ya know, it just fucks up the cow when it comes to me in terms of what I can do with it” (Interview Six). This makes holding a cow past three years inconvenient, even though it would make grass-finished beef fattier. Alternatively, “if we just adopted European slaughter guidelines where they vacuum out the spinal cord” as opposed to removing the whole spinal column (Interview Five), participants would be more willing to work with a product that was handled in a less destructive way.

Alternatively, a tendency towards a more European way of doing things emerged when talking about different types of cuts. When asked what they thought about the National Restaurant Association’s Prediction that “New Cuts of Meat” would be a top
trend in 2017, the majority made comments that animals had had the same cuts since the beginning of time. One chef explained:

> If you go back if you go back and learn a bit about European style butchering opposed to American style butchery. All of a sudden, the stuff starts working and it make sense… It just goes back to the way they’ve been doing it a while. You know we’re still relatively young country compared to what's been going on in Italy and France and the rest. (Interview One)

Similarly, a butcher in the sample explained that just because cuts were not known in America did not mean that they did not have great flavor (Interview Twelve).

This section explored the barriers that culinary professionals have in getting the product they desire. This barrier may be monetary, or the product may not exist at the caliber in which they would like it. In order to deal with low profit margins, some are utilizing lesser known cuts of beef, or had to “bleed” up front. Participants mentioned an appeal to European ways of doing things, possibly as a solution to monetary problems, and issues of consistency. However, these culinary professionals do not make decisions in a vacuum and are very much concerned with and in tune to what their customers wants. The following section examines chefs’ perceptions of their customers’ wants, discrepancies between professionals and customers and how they communicate their beef program to their customers.

5. **Relationship with consumers**

A key component of this research was to explore culinary professionals’ perceptions of consumers’ preferences and how product claims about sourcing are communicated to guests. Several themes emerged when culinary participants spoke about this relationship: guest desire for consistency and familiar flavors, a difference in
purchasing priorities, and using wait staff and credibility to communicate sourcing choices.

5a) Sometimes you’re just a “New York strip girl”

Participants reported that consumers highly value consistency, whether in quality, quantity or cuts. If a customer was mentioned that was willing to try new things, it was more the exception than the rule. “Sometimes you’re just a ‘New York strip girl’ and that’s all you need and that’s fine, too,” the grass-finished focused butcher in Denver explained. Several chefs described how guests come in wanting to spend money on a steak they know they are going to enjoy. A chef at a “seed to table” steak house in Denver stated if a guest comes in “prepared to spend $80 on steak… [and they’ve] had wagyu in the past [they’re] not going to risk [it] on a grass-fed beef being lean because they like a fatty cut” (Interview Nine). Similarly, a chef at a self-defined “meat heavy” restaurant expressed amusement that tenderloins are the best-selling item on his menu since he doesn’t even like tenderloins. In the past, he tried to run specials featuring butcher cuts, but they are not very successful, “when people come in here, they want their fifty-dollar seven-ounce tenderloin” (Interview Eight). For one participant in Salt Lake City, this was not necessarily a bad thing:

I swear I have a lot of my customers because I’m still doing a beef tenderloin and I’m still doing a New York strip, and everywhere else is doing, what do they call it a bavette cut or a little skirt steak. (Interview Two)

Further, flavor, quality, tenderness, and price point were perceived to be more important to consumers than production standards. However, animal welfare, or where
the beef came from is a close second. A butcher who works at a high-end restaurant in Salt Lake, but previously in larger cities, explained:

Social awareness [towards] how animals are being treated. There’s going to be a bigger consumer push towards more humanely treated and more naturally treated a livestock and stuff like that…I know in other cities, maybe not Salt Lake yet (Interview Eleven).

A chef in Park City, Utah, was already seeing this trend, explaining how “savvy diners follow them on social media and read their story” and this is what gets them into the restaurant (Interview One). Interestingly, a chef in Denver, noted that although he recognized “more and more momentum towards consumer awareness…on the flip side of that coin though…we sell a lot of veal” (Interview Four).

5b) From my perspective, or a guest’s perspective?

Several interviewees expressed a disconnect between how they value things and their consumers’ values. When asked what qualities he looked for in beef, one chef clarified “From my perspective, or guest perspectives?” (Interview Nine). Later when asked to rank the qualities he looked for in beef he asked, “Okay, from, from a chef’s perspective or what I could sell on the menu?” (Interview Nine). Interestingly when specifically prompted to answer for both he responded:

Um, I would say from a chef’s perspective, the soil health, um, the pasture raised and the marbling scores followed by Colorado [raised], quality grade and then the reduced emissions, I would say from a guest perspective would be marbling scores, Colorado [raised], quality, then pasture followed by soil health and emissions. (Interview Nine)

Here he lists that the most important thing to him as a chef is soil health, which he suspects would be ranked low by his consumers. Similarly, pasture raised ranked high for him and low for his guests. During the same exercise, another chef acknowledged
pasture-finished and reduced emissions as important to him but “people come to him for
good food first so that’s what he’s shopping for” (Interview Three).

Similarly, earlier in Interviewee Three’s interview, he explained how when his
restaurant first opened four years ago, they were determined to do everything as local as
possible. This chef spent three years putting “more money and putting more effort into
having all Colorado [product], but they [customers] didn’t care as much” (Interview
Three). He explained that customers would have the “best steak they’ve ever had as
opposed to it being a Colorado steak” (Interview Three). Although, the ranchers he
sourced from had recently moved to Wyoming, he did not perceive this being an issue for
his consumers. In both examples, participants viewed environmental concerns as a high
priority when purchasing beef, but were aware that their guests were more concerned
with having a good steak.

This could potentially make professionals more hesitant to switch to new
products. A chef in Denver explained that:

Clients make the first jump, customers need to get into grass-fed, but it’s
mouth memory what people consider to be good beef. So, it’s hard to say
we are going to do the right thing and doing it if people don’t like it.
(Interview Ten)

Participants are constantly balancing between what they value and what consumers want.
Moreover, if customers are not demanding grass-finished or other alternatives, making a
switch may not make sense. However, some strive to appease both their philosophy and
their consumers.

Interviewee Five, whose passion for grass-finished beef is apparent, laughed when
asked if this was also true for her customers, “I wish they were [interested in grass-
finished]. Um, I think that people shop with us because we’re a specialty whole animal butcher shop and not because we are grass-fed. I really wish it was the other way around.” However, she was not going to compromise on her “sort of ethos.” She hoped that although customers enter with different reasons that they would leave with an understanding of the way “all different livestock are raised and the impacts they have on the environment” (Interview Five).

5c) Front of house spiel

Culinary professionals communicating where they source from is vital for diffusing new trends. The main ways that emerged were through educating service staff to educate the customer, or alternatively in butcher shops educating the customer themselves. Further, although few mentioned menus as a vehicle for transmitting knowledge, several expressed that they intentionally left farm names off their menu.

The theme of a front of house spiel emerged from the interviews. When asked how he communicates where his beef comes from to customers, a chef in Park City explained, “It’s part of our front of house spiel to inform our guest. Ask them ‘is this your first time here?’ and if they say ‘yes,’ then they go into it, ‘Just so you know, all of our beef is grass-fed from New Zealand’” (Interview Thirteen). This was consistent with other chefs’ explanation of how the front of house delivered information to guests. Further, this information was given to the service staff through trainings.

For Interviewee One, this transmission of information started with educating the staff “I educate the shit out of them. I mean we have food seminars, weekly.” Similarly, Interviewee Nine explained how staff trainings during pre-shift meetings not only taught servers to talk about their steak selection but how to read the table as well.
We teach them the bullet points because you only have so much time at the edge of the table…just like are they cabernet drinkers? Are they 7X or Wagyu people or are they grass-fed conscious? (Interview Nine)

However, he goes on to state that due to the reputation of the restaurant, guests know that they source beef with sustainability in mind, regardless of how it is finished or where it is from (Interview Nine). Similarly, several chefs expressed that they did not “name drop” on the menu, because when a guest walked in the door there was an expectation that everything on the menu was sourced sustainably. A chef in Denver explained that his menu was engineered to be all local, farm-to-fork and so to say “organic this or house-made that” on the menu would be redundant (Interview Four). The owner of a restaurant in Salt Lake City laughed when asked how she communicated sourcing to her customers, “Oh, they see me at the [farmers’] market” (Interview Two).

That is not to say that some chefs do not utilize menus for relaying information but rely on the name brand of the farm to speak for itself. For instance, a restaurant butcher explained that they put Snake River Farms on their menu and if a guest is curious, they can look it up (Interview Eleven). Alternatively, one restaurant's beef predominately came from the Agri-Beef program so the exact source could not be identified. The chef clarified “So if I don’t know the exact source, I don’t put it on the menu” (Interview Eight).

One chef doubted the effectiveness of menu advertising, he once put “grass-fed” on the menu without telling any of the service staff and for over a month no one came and asked him to clarify what was meant by that. He concluded his anecdote “I guess my determination on that was I don’t fully believe that you have to quote unquote educate the guest because I don’t think they want to be educated” (Interview Nine).
Butchers predominantly spoke of working as a liaison between the ranchers and the customers who come in. Interviewee Five explained that when behind the counter, she is a storyteller:

Because telling a story is really the most interesting way to disseminate information…I tell stories about the families, I tell stories about the grasslands and what happens when you start reversing desertification and you know, how cattle play a role in that and making it fun. So the more fun I can make it I think the more people walk away with an understanding. (Interview Five)

Alternatively, a butcher in Salt Lake, UT let the beef speak for itself. However, he also recognized that he acts as a liaison between the rancher and customer (Interview Twelve).

**Discussion**

These results reveal that culinary professionals establish communication with their customers in several different ways: they educate and utilize wait staff, establish their reputation prior to the guest visits, and use farm names on menus. This is similar to findings by Dragon (2016). For the interviewees in the research presented here, in cases where professionals can interact with customers, they tell stories about the ranchers and the lives of the cows to establish production standards other than those imposed from a third party. These stories reflect and justify the purchasing choices of these professionals, which are then communicated to their customers.

Inwood et al. (2009) found that the primary motivation of purchasing decisions of chefs interested in local food was ‘taste’ followed by ‘local,’ while Curtis and Cowee’s (2009) examination of chefs in Nevada showed that consistency and quality were the primary concerns when sourcing locally. Taste was also a concern for the interviewees in this study, particularly in regard to grain vs. grass-finished and pleasing consumers as
well as finding a consistent and quality product. Similarly, participants listed consistency
and quality as top priorities followed by ‘local’ or ‘Colorado’ or ‘Utah Raised.’

The participants interviewed for this study defined their style as simple with a
focus on quality ingredients, which aligns with the minimalist innovator identified by
Gomez and Bouty (2009). However, when asked if they viewed themselves as
innovative, the responses were mixed; if they did see themselves as innovative it was
because they were focusing on fresh ingredients with bold flavors and not “foam” or
other gastronomic innovations. However, considering the tradition of cattle ranching in
the west (Winkler et al. 2007) perhaps steaks can never be a true new innovation.
Therefore, instead of marginalized innovators, participants in this study represent early
adopters, serving as culinary opinion leaders whose role in disseminating information
makes them a key individual in establishing new culinary trends (Abbotse 2015; Inwood
et al. 2009). However, considering the amount of autonomy and capital culinary
innovators, such as Michelin chefs, need to be innovative, the typical definition of a
marginalized innovator may not apply to culinary professionals.

Moreover, the relative advantage of adopting a new product is incredibly
important to professionals. Many interviewed struggled with the cost and taste of grass-
finished beef, while they acknowledged that the perceived environmental benefits of this
finishing system were better than grain-finished. Thus, Rocky Mountain Legume-
Finished beef could present an advantage if it is perceived as being more comparable to
grain-finishing in taste and cost. It must though be compatible with the way in which
these professionals are already purchasing beef. For example, relationships with ranchers
are viewed as far more effective than third-party certifications. Any new product should
fit into this framework to encourage adoption. In these interviews the other Diffusion of Innovation perceived attributes of complexity, trialability, and observability did not emerge, although, these likely will be important further in the adoption process. This research focused solely on perceived benefits and barriers focusing most on relative advantage and compatibility.

*Professional preferences and barriers to adoption*

When it came to adopting new products, participants expressed that they perceived some consumers would be unwilling to try a new product, especially because beef is so expensive. This is similar to research focusing on chef’s hesitancy to adopt whole grain products for fear that consumers would not enjoy the taste, finding it unfamiliar (Lendway, Hesse, and Marquart 2014). Perceiving consumer acceptance as a barrier to new product adoption, limits its perceived economic and social benefits. If Rocky Mountain Legume-Finished beef cost less then grass-finished beef it may be perceived as economic advantageous, or if they perceive that featuring a new type of beef would attract more customers they may be more likely to adopt. Moreover, working within their current sourcing system, for example if they source directly from a rancher or a co-op of ranches, may make adoption easier since it requires less change.

Fear over a new products’ ability to be consistent in terms of taste, quality, and quantity were also identified as potential barriers by interviewees. This concern is not isolated to the participants in the Rocky Mountain Region. Maynard, Burdine, and Meyer (2003) found that chefs in Kentucky perceived lack of consistency and availability as barriers to the adoption of alternatively produced beef. Therefore, addressing those
concerns could make a product like Rocky Mountain Legume-Finished beef an adoptable alternative. For example, consider the participant who could not get the consistent or reliable product they wanted from the United States and had to source from New Zealand. If he could get a comparable product from the United States, that would put Rocky Mountain Legume-Finished Beef at an advantage.

Moreover, another theme that emerged is focusing on relationships over relying on third-party certifications. The professionals in this sample expressed a desire to be able to create a story for their customers with their products and focus on the relationship and trust built with ranchers. Sharma, Moon, and Strohbehn (2014), echoed these results found that chefs currently working with local food viewed it as a way to understand production systems more. While Zepeda and Deal (2009) also found movement away from third-party certifications towards personal relationships as a growing focus among non-conventional shoppers. This was credited to the fact that major chain stores such as Wal-Mart were now selling organic and it has lost some of its prestige. This could explain why chefs and butchers in this sample opted for personal relationships over third-party certifications. Aligning Rocky Mountain Legume-Finished beef with professionals’ desire to know their product, brings in the role of complexity in adoption, as relationships are often viewed as simple or the right thing to do.

McEachern and Schröder (2004) found that quality in terms of the “process of consumption,” flavor and texture, were most important to consumers, therefore it makes sense that culinary professionals keep that in mind when selecting products. However, their research focused on labels specifically and found that consumers knew very little about the standards associated with the different claims. Thus, lack of transparency
regarding labels might actually hurt professional’s credibility. Looking at culinary professionals as consumers, we see this same distrust in generic value-based labeling schemes, with many working outside of those to achieve their goals.

Without perceived demand, making menu changes may not be advantageous, as many chefs in this study spoke of consumers coming into their establishment ready to spend money on something they know is good. Radder (2002) explored the marketability of venison to restaurants in South Africa and revealed that chefs perceived no demand for venison and further that the dishes on the menu were a direct reflection of what customers want. Culinary professionals, specifically chefs, who unlike butchers do not purchase whole, half, or quarter animals, may be hesitant to replace a popular cut or type of beef such as wagyu if it is in demand. Menu changes might also seem daunting if business is going well and there is not already an established trust created between the professional and his clientele. Here, the importance of wait staff in communicating the new trends or products become invaluable.

Utilization of wait staff in communication

Pirog (2004) studied consumer perceptions of products raised on pasture and found that the term pasture-raised was less confusing than grass-fed for consumers. Further, approximately 50% of consumers were aware of the benefits associated with “grass-fed.” However, only 14% of participants reported that how the animal was raised was important to them. This is similar to the results presented here, specifically the butcher who tells customers about the ranchers and the grasslands. However, culinary professionals in this sample perceived that their customers are not interested in “being educated.” Here, stories can help communicate product standards without outright
“educating the consumer.” Therefore, it is valuable for chefs to communicate stories about their products in terms of seed to plate with an emphasis on the relationship with the farmer, as many of them do.

In the telling of the story, different assumptions can be made about the type of establishment and the type of product they are getting. Harper and Makatouni (2002) researched how one product claim such as animal welfare relates to other ethical attributes in customers’ minds such as larger safety and health concerns, and the purchase of organic and free-range products. In this, culinary professionals act as both the consumer and the person creating the story for and educating wait staff who in turn interact with the consumers. Similarly, interviewees expressed that their customers may not share their same priorities like the chef who prioritized local food but his consumers would rather have “the best steak they’ve ever had.” However, culinary professionals who might be interested in soil health or pasture finishing often encountered customers who were interested in other issues such as nutritional health.

Dragon (2016) studied the effectiveness of wait staff in communicating about local food. In this, she found that wait staff might be overly confident about their ability to communicate about local food. Chefs that are using rigorous training sessions are likely being more effective, such as Interview One who “educates the shit out of them.” Service staff is arguably the most important contact with a guest in the restaurant; one chef in Dragon’s (2016) study explained he was able to raise the price of goat cheese 80 percent once his staff started eating it. For many chefs in this sample, they work closely with service staff to develop talking points since they only “have so much time at the edge of the table.” Therefore, educating the wait staff is vital for success of a product and
is one of the main ways in which the professionals interviewed for this study explained they diffuse new trends and products.

**Study limitations and suggestions for future research**

The results presented in this study are not necessarily generalizable. Not only is this due to the focus of locations in the Rocky Mountain West, the participants were all Caucasian and mostly male, and the study was qualitative in nature. Although this study may capture the demographics of culinary professionals in these cities, it may not apply to larger or smaller populations in other cities. Moreover, all the professionals who took part in this study were already working with non-conventional beef. In this, restaurants not already sourcing and serving this product might foresee different barriers and have different perspectives of what makes an ideal product. In addition, this research examined what participants thought motivated their consumers' decisions. The actual consumers were not interviewed.

Additional research could provide further details into what outlets new beef products should be introduced. A survey tailored to using results from this qualitative work complete with a demographic component would be helpful in determining what size of restaurant and what average price point could support new local products. Further, research on consumers who are currently consuming alternatively produced beef at high-end restaurants and craft butcher shops could shed light on marketing techniques that go beyond professionals. Lastly, as the research team moves forward raising and finishing cattle on tannin-containing legume forages, making sure they can create a consistent affordable product should be a top priority.
Conclusion

The results of these exploratory qualitative interviews suggest that potential new products must address environmental and animal welfare concerns while still maintaining cost effectiveness and quality consistency. Quality and consistency outranks almost any other concern that culinary professionals express. Culinary professionals may stand in their own way of adopting a new product that aligns with their overall sustainability concerns if the taste profile does not appease the standards they set for themselves, not just the demand they perceive from their consumers. However, most participants also mentioned environmental concerns and/or humane treatment of animals as priorities albeit constrained by their financial limitations. Realizations about the expense associated with third-party certification also prompted participants to look outside of those common value labels and focus more on personal relationships. Although a few participants reported being able to make ends meet through both financial sacrifices and time commitments, many still could not access the product they desired for their beef program.

Customers are often perceived to be stuck in their ways, and as a result, professionals may be hesitant to take chances on new products. In order to address this, new products will need to appeal to consumer concerns such as beef healthfulness, marbling, and tenderness as opposed to environmental benefits. Moreover, proper training of the wait staff is necessary to help them effectively communicate about the new product, as placing information solely on a menu may not be as effective. If the servers or counter personnel are trained to tell the story of the product, consumers might be more willing to purchase beef outside of their comfort zone.
In conclusion, the success of beef finished on tannin-containing legume forages is reliant on its overall marketability with taste, consistency, price, environmental, and animal welfare being top marketing priorities. Working with innovators in the culinary field to address the preferences and barriers they perceive will help the successful introduction of the product. For a new product to be successful, it has to address environmental and animal welfare concerns, while pleasing the palate of the average beef consumer. Moreover, it must be cost effective, which will be achieved by finishing cattle in a similar period as less expensive beef. Ranchers will have to see how economically viable this is for them. Successfully marketing beef will help them feel secure in taking a chance on a new product. Findings of this study suggest that chefs and butchers are willing and interested in conversations about alternative finishing process that addresses their concerns and appeal to their needs. Therefore, if done correctly, beef from cattle finished on tannin-containing legume crops will be a marketable alternative.

**Recommendations for practice**

The success of Rocky Mountain Legume-Finished beef as a more efficient alternative is dependent on its adoption and diffusion by opinion leaders in the culinary field. For the participants in this study, the perceived advantage of this product included the possibility that it could be more comparable to grain-finished beef in terms of taste and price, while providing the same perceived environmental benefits of a grass-finishing systems. In order to maximize these benefits, culinary leaders need to know how to communicate these advantages to their clientele through wait staff, thus researchers need to be ready to explain these benefits, especially with a focus on specifics, such as the time to slaughter.
The interviewees also expressed an interest in understanding the story behind the products they source. These stories revolve around relationships with producers and establish trust that standards (such as animal welfare) are being met throughout the production chain. In order to make Rocky Mountain Legume-Finished beef compatible with the current way professionals are doing things, facilitating interactions between the ranchers and the culinary professionals will keep the process transparent, reduce complexity, and likely help adoption rates. Further, creating opportunities for culinary professionals to tour the ranches where finishing cattle on tannin-containing legume crops is currently being used.

Moving forward with this product’s development trialability should include the option for chefs and butchers to work with the product and feature it on their menu without too much buy in. Specifically, taste tests allowing professionals to sample the steaks with no commitment would be a beneficial first step. Further, restaurants that feature steak “flights,” several different small portions of different steak, may be more willing to feature it in combination with more known flavors.

Observability of the benefits of this product can be communicated through wait staff, developing talking points that can be effectively and quickly communicated to the customers highlighting the relative advantage of this niche product. In this several talking points have been developed to achieve this goal:

- Is more tender and juicy than grass-finished steak; comparable to grain-finished
- Grazing on diet that cattle evolved on
- Where it is being raised e.g. ranch name
These three small points will give customers the assurance they need that their steak will appease both their taste buds and their morality. And in turn, culinary professionals will see a demand they can supply.

References


Discussion and synthesis of research findings

A discursive analysis of food labels, menus, and culinary websites as boundary objects revealed that third-party certifications on labels were not as prevalent or as important as product branding that focused on ranch names, the concept of authenticity, and animal welfare. Menus featured ranch names rather than locations, and website narratives constructed restaurant staff and/or chefs as diligent purveyors of authentic ingredients that adhere to a food philosophy focused on strict standards, sustainable systems, and real relationships with people. Culinary professionals become boundary objects, simultaneously taking on the role of scientist, nutritionist, and moral philosopher. Therefore, introducing new products into this food system requires more than third-party certification. What is more important is to situate the product features and information about it into value-normative narratives that adhere to the social construction of specialty beef and high-end food.

Following the food label, menu, and culinary website discursive analysis, interviews were conducted with early adopting culinary opinion leaders in two major urban centers to assess chefs and butchers’ experience with implementing beef programs. Themes that emerged while assessing benefits and barriers to new product adoption included participants’ cognitive dissonance between environmental and humane treatment and what taste they and their customers actually prefer in beef. In some cases, this can be appeased, but in others, taste was given a higher priority than environmental benefits or animal welfare concerns. Moreover, barriers to adoption included financial
constraints on the professionals and/or ranchers, which resulted in difficulty in getting the product they want. Some professionals insisted that investing upfront could ensure product consistency and quality from a respectable source, while others were forced to compromise in one area or another. Regardless, culinary professionals emphasized that relationships with beef producers was more important than third-party certifications and some even expressed outright hostility to these certifications as inauthentic, overly bureaucratic, and potentially meaningless.

The two research efforts outlined in this thesis provide a more detailed understanding of how Rocky Mountain Legume-Finished beef could be marketed in the Rocky Mountain Region. Both the discursive analysis and the interviews revealed that there is distrust in third-party certifications such as “organic,” which means that a focus on these certifications could actually hurt the adoption of Rocky Mountain Legume-Finished beef. Rather, butchers and culinary professionals interviewed strive to create professional relationships with ranchers to ensure that the high standards they set for their ingredients are being met. Further, authenticity and an appeal to tradition emerged in both chapters through narratives constructed on websites and in interviews. This appeal to tradition could be seen in claims that the cattle they source comes from “pristine Wyoming pasture” or from professionals who are “personal with all their ranchers” and who focus on creating dishes that are “simple, seasoned, and cooked to perfection.” However, there were some disconnects between the results of the website narratives and the interviews. Despite the strong ethos put forth on the websites, and the deep desire to always source the most ideal product, discrepancies exist between financial or structural barriers and ideal standards that need to be addressed.
For Rocky Mountain Legume-Finished beef to be a viable product, it must be perceived as having a relative advantage over current beef programs. Ideally, this beef would be more comparable to grain-finished beef as opposed to grass-finished beef in terms of price and taste, but offer more environmental, animal welfare, and legacy (i.e., raising cattle in open pasture in the West, consuming the forage they evolved to consume) benefits. Further, participants reported perceiving their customers as being stuck in their ways and perhaps unwilling to spend money on unknown cuts or unknown finishing programs. However, servers can be a powerful tool for influencing and informing customer choices. Similarly, a successful new product introduction would also mean educating and utilizing butcher shop personnel to inform consumers about the new product.

Recommendations for future study

Literature looking at how chefs influence purchasing decisions focuses on celebrity chefs (Abbotse 2015; Barnes 2017; Caraher, Lang, and Dixon 2000; Hansen 2017), rather than local high-end chefs. Although insightful, more research on less prominent chefs would make the body of literature more generalizable. In addition, there is an absence in understanding of consumer perceptions or influences by local high-end restaurant chefs and trends. A mixed-method approach with patrons at these establishments would begin to answer this question with interviews shedding in-depth light on how this relationship is formed, while a survey would provide a broader reach of quantitative data.

Targeting high-end culinary professionals who are already serving specialty beef was an intentional choice for this exploratory research. However, it may be advantageous
to interview both chefs and restaurant staff that are serving conventional beef or those that do not currently serve beef to understand what barriers and benefits they perceive with their current systems. Understanding where they get their information from and how meaning around food purchasing decisions is constructed would be invaluable especially if these establishments are trying to define themselves against high-end cuisine. This could, in turn, expand marketing strategies and further the popularity of Rocky Mountain Legume-Finished beef.

**Recommendations for practice**

Results of this study suggest there is a demand for a sustainable pasture-finished product like Rocky Mountain Legume-Finished beef. Participants in this sample were interested in environmentally sustainable products that taste and cost more similarly to grain-finished beef. However, in order to most effectively meet this demand, the following best practices should be applied:

- Third party certifications are not necessary, although standards are important
  - E.g., animal welfare can be addressed through pictures
- Focus on the story of the ranchers, and promote this relationship
- Arrange ranch tours for culinary professionals
- Highlight both environmental benefits and taste qualities
- Appeal to tradition both culturally and environmentally
  - E.g., cattle evolved on this diet, restoring pasture lands, supporting western ranchers
Most importantly, the product needs to be marketed with emphasis on the ranchers, the cattle, and the environment. Culinary professionals need to be targeted with a story that can then be marketed in an appealing manner to their customers. There is not a demand for third-party certifications, but as participants expressed a desire to achieve sustainability goals, the production system must go beyond what certifications stand for. Moreover, it is important for culinary professionals to understand that cattle will reach slaughter weight in a time frame, preferably told in days, that will allow prices to be competitive with grain-finished more so than grass-fed. Towards this end, an Extension fact sheet has been created to address the specific questions chefs asked during the interviews (Appendix D).

**Summary**

Beef from cattle finished on tannin-containing legume forages has the potential to occupy an important niche. Concern over price associated with grass-finished beef can be addressed if a slaughter date can be reached more quickly. Furthermore, results from a consumer taste test reported that beef from tannin-containing legumes crops were more comparable to grain-finished and preferred over grass-finished. This would appease chefs who prefer grain-finished but are concerned with environmental degradation. Chefs and butchers are interested in working closely with ranchers to achieve consistent products as long as it can be economically viable for both parties.

The information gathered will not only help address logistical concerns for culinary professionals but also helps inform marketing strategies. The benefits listed above will be more acceptable to consumers if they are associated with stories, detailing the relationships between chefs, butchers, and ranchers as well as presented in the context
of overall sustainability. In this, the market for Rocky Mountain Legume-Finished Beef is ripe and these tools can help meet demand.

References


APPENDICES
APPENDIX A

LABEL AND MENU OBSERVATION INSTRUMENTS
Label Observation Instrument

<table>
<thead>
<tr>
<th>Company</th>
<th>Location</th>
<th>Cut/Type</th>
<th>Weight</th>
<th>Price</th>
<th>Certifications</th>
<th>Pic #</th>
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Certifications:

1=USDA Processed Verified
2=USDA Organic
3=Certified Naturally Grown
4=Food Alliance Certified
5=Non-GMO Project Verified
6=USDA Natural
7=No Hormones added/hormone free/rBGH-free/rBST-free
8=No antibiotics/antibiotic free
9=Global Animal Partnership
10=Animal Welfare Approved
11=American Certified Humane
12=American Grass-fed
13=Cert. Humane Raised & Handled
14=Angus
15=Prime
16=Select
17=Choice
18=Buy Local
19=Quality Assurance International
20=Other
**Menu Observation Instrument**

Restaurant Name and Location:  

Date/Time:

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<th>Mode</th>
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<th>Cut/Type</th>
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APPENDIX B

INSTITUTIONAL REVIEW BOARD APPROVAL AND

INFORMED CONSENT FORMS
Kailie Leggett <kailie.leggett@aggiemail.usu.edu>

Approval letter from USU IRB

noreply@usu.edu <noreply@usu.edu> Thu, Aug 24, 2017 at 12:14 PM

To: roslynn.brain@usu.edu, kailie.leggett@aggiemail.usu.edu

Institutional Review Board
USU Assurance: FWA#00003308
Exemption #2, #6
Certificate of Exemption

FROM:

Melanie Domenech Rodriguez, IRB Chair
Nicole Vouvalis, IRB Administrator

To: Roslynn Brain, Kailie Leggett
Date: August 24, 2017
Protocol #: 8205
Title: Assessing The Market For Locally Legume-Finished Beef In The Intermountain West

The Institutional Review Board has determined that the above-referenced study is exempt from review under federal guidelines 45 CFR Part 46.101(b) category #2:

- Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (a) information obtained is recorded in such a manner that human subjects can be identified, directly or through the identifiers linked to the subjects; and (b) any disclosure of human subjects’ responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects’ financial standing, employability, or reputation.

AND category #6:

- Taste and food quality evaluation and consumer acceptance studies, (a) if wholesome foods without additives are consumed, or (b) if a food is consumed that contains a food ingredient at or below the level and for a use found to be safe, or agricultural chemical or environmental contaminant at or below the level found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

This exemption is valid for three years from the date of this correspondence, after which the study will be closed. If the research will extend beyond three years, it is your responsibility as the Principal Investigator to notify the IRB before the study’s expiration date and submit a new application to continue the research. Research activities that continue beyond the expiration date without new certification of exempt status will be in violation of those federal guidelines which permit the exempt status.
As part of the IRB’s quality assurance procedures, this research may be randomly selected for continuing review during the three year period of exemption. If so, you will receive a request for completion of a Protocol Status Report during the month of the anniversary date of this certification.

In all cases, it is your responsibility to notify the IRB prior to making any changes to the study by submitting an Amendment/Modification request. This will document whether or not the study still meets the requirements for exempt status under federal regulations.

Upon receipt of this memo, you may begin your research. If you have questions, please call the IRB office at (435) 797-1821 or email irb@usu.edu.

The IRB wishes you success with your research.
Assessing the Market for Local Legume-Finished Beef in the Intermountain West

Introduction
You are invited to participate in a research study conducted by Roslynn Brain, an Assistant Professor in the Environment and Society Department Utah State University. The purpose of this research is to understand culinary leaders’ opinions and preferences on different beef labels, beef characteristics, beef cuts and customers preferences.

This form includes detailed information on the research to help you decide whether to participate in this project. Please read it carefully and ask any questions you have before you agree to participate.

Procedures
You will be asked a series of open-ended questions directly relating to consumers demands and preferences in specialty beef, as well as emerging specialty meat trends and how you find about said trends. This will take anywhere from 10 to 45 minutes depending on the length of your answers

If you agree to participate, the researchers will also collect data on how specialty beef claims are communicated at your place of employment (if the interview is taking place at your place of employment). This includes food labels, menus, or information boards. We anticipate that altogether 14 culinary professionals from Salt Lake City and Park City, Utah and Denver, Colorado will participate in this research study.

Risks
This is a minimal risk research study. That means that the risks of participating are no more likely or serious than those you encounter in everyday activities.

Benefits
There is no direct benefit to you for participating in this research study. More broadly, this study will help the researchers learn more about culinary professionals’ preferences and may help market specialty beef in the future.

Confidentiality
The researchers will make every effort to ensure that the information you provide as part of this study remains confidential. Your personal identity will not be revealed in any publications, presentations, or reports resulting from this research study.

We will collect your information through this audio recorded interview. The digital data collected will be stored on a password protected computer with no identifying information. Once the audio recording of your interview as been transcribed and edited for any identifiers, the audio recording will be deleted. Written data collected will be securely stored in a locked cabinet in a restricted-access office. This form will be kept for three years after the study is complete, and then it will be destroyed.
It is unlikely, but possible, that others (Utah State University, National Institute on Food Research) may require us to share the information you give us from the study to ensure that the research was conducted safely and appropriately. We will only share your information if law or policy requires us to do so.

**Voluntary Participation & Withdrawal**
Your participation in this research is completely voluntary. If you agree to participate now and change your mind later, you may withdraw at any time by letting the researcher know either in person, by phone, or e-mail. If you choose to withdraw after we have already collected information about you, the electronic recording will be deleted and consent forms will be shredded. The researchers may choose to terminate your participation in this research study if at any time it feels unsafe.

**Compensation**
There will be no compensation for your participation in this research study.

**Findings & Future Participation**
The researchers would like to keep your contact information in order to invite you to participate in future research studies. If you would like them to keep your contact information, please initial here: ______. This information will be entered into a document that is kept on a password protected dropbox that is completely separated from anything to do with this research study and maintained for three years. You can contact the Principal Investigator at any time to be removed from this list.

**IRB Review**
The Institutional Review Board (IRB) for the protection of human research participants at Utah State University has reviewed and approved this study. If you have questions about the research study itself, please contact the Principal Investigator at (435) 797-5116 or roslynn.brain@usu.edu. If you have questions about your rights or would simply like to speak with someone other than the research team about questions or concerns, please contact the IRB Director at (435) 797-0567 or irb@usu.edu.

---

**Informed Consent**
By signing below, you agree to participate in this study. You indicate that you understand the risks and benefits of participation, and that you know what you will be asked to do. You also agree that you have asked any questions you might have, and are clear on how to stop your participation in the study if you choose to do so. Please be sure to retain a copy of this form for your records.

---

Dr. Roslynn Brain  
Principal Investigator  
(435) 797-5116; roslynn.brain@usu.edu

Kailie Leggett  
Student Investigator  
(208)921-5748; kailie.leggett@aggiemail.usu.edu

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Participant’s Signature: __________________________  Participant’s Name, Printed: __________________________  Date: __________________________
Assessing the Market for Local Legume-Finished Beef in the Intermountain West

Introduction
You are invited to participate in a research study conducted by Roslynn Brain, an Assistant Professor in the Environment and Society Department Utah State University. The purpose of this research is to understand culinary leaders’ opinions and preferences on different beef labels, beef characteristics, beef cuts and customers preferences.

This form includes detailed information on the research to help you decide whether to participate in this project. Please read it carefully and ask any questions you have before you agree to participate.

Procedures
You will be asked to first fill out a short demographic survey. The survey should take no longer than 5 minutes. Second, you will be asked a series of open ended questions. This portion of the interview could take anywhere between 15-45 minutes depending on the length of your answers. Finally, you will be provided with a short explanation of Utah Legume-Finished Beef. This explanation should take no longer than 10 minutes. You will then be asked to rate what characteristics they find the most interesting. This final section will take between 5 and 15 minutes depending on your response time. Therefore, your total participation time will vary between 40 minutes to an hour and a half, depending on your responses.

Chefs in Salt Lake or Park City Utah: If you have agreed that you would like to try Utah Legume-Finished Beef, you will be given the cuts to try and a time to talk later will be established. The follow up call ask for your general impression of the beef. This brief follow-up will take anywhere between 10-30 minutes depending on your responses.

If you agree to participate, the researchers will also collect data on how specialty beef claims are communicated at your place of employment (if the interview is taking place at your place of employment). This includes food labels, menus, or information boards. We anticipate that altogether 14 culinary professionals from Salt Lake City and Park City, Utah and Denver, Colorado will participate in this research study.

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There is no direct benefit to you for participating in this research study. More broadly, this study will help the researchers learn more about culinary professionals’ preferences and may help market specialty beef in the future.

Confidentiality
The researchers will make every effort to ensure that the information you provide as part of this study remains confidential. Your personal identity will not be revealed in any publications, presentations, or reports resulting from this research study. However, it may be possible for someone to recognize your particular story, situation or response.
We will collect your information through this audio recorded interview and brief demographic survey. The digital data collected will be stored on a password protected computer with no identifying information. Once the audio recording of your interview has been transcribed and edited for any identifiers, the audio recording will be deleted. Written data collected will be securely stored in a locked cabinet in a restricted-access office. This form will be kept for three years after the study is complete, and then it will be destroyed.

It is unlikely, but possible, that others (Utah State University, National Institute on Food Research) may require us to share the information you give us from the study to ensure that the research was conducted safely and appropriately. We will only share your information if law or policy requires us to do so.

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Your participation in this research is completely voluntary. If you agree to participate now and change your mind later, you may withdraw at any time by letting the researcher know either in person, by phone, or e-mail. If you choose to withdraw after we have already collected information about you, the electronic recording will be deleted and consent forms will be shredded. The researchers may choose to terminate your participation in this research study if at any time it feels unsafe.

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---

Dr. Roslynn Brain  
Principal Investigator  
(435) 797-5116; roslynn.brain@usu.edu

Kailie Leggett  
Student Investigator  
(208)921-5748; kailie.leggett@aggiemail.usu.edu
Informed Consent

By signing below, you agree to participate in this study. You indicate that you understand the risks and benefits of participation, and that you know what you will be asked to do. You also agree that you have asked any questions you might have, and are clear on how to stop your participation in the study if you choose to do so. Please be sure to retain a copy of this form for your records.

________________________________    ________________________________    ______________
Participant’s Signature    Participant’s Name, Printed    Date
APPENDIX C

INTERVIEW QUESTIONS AND INTERVIEW TRANSCRIPTIONS
Introduction: Thank you so much for agreeing to participate in this interview. This interview could take anywhere between 15 minutes and a couple of hours depending on how much you would like to tell me. The information gathered is going to be invaluable to our research on raising cattle on tannin-containing legumes crops, which I will describe in more detail later on. My hope is to capture your priorities and perspectives so that the final product is something you might be interested in. First of all, I would like to get a little more information about you:

1. What is your official title here at the restaurant (butcher shop)?
   a. Can you explain what that means and what your duties are?

2. How long have you been working here?

3. How did you get started in the restaurant industry?
   ● How would you describe your style?*
     ○ Follow up/prompts: experimental, traditional, seasonal

   ● Do you consider yourself on the cutting edge of restaurant trends?*
     ○ If not, where would you place yourself?

   ● What do you consider to be the most desirable and/or interesting qualities for beef?

Great, thank you. The next set of questions concerns your perceptions and purchasing habits of non-conventional/sustainable beef. As I’m sure you are aware, there a lot of different ways in which beef is raised and subsequently a lot of different certifications and product claims such as organic, natural, local.

4. Which certifications, labels, or production standards are the most important to you and why?
   a. Follow up/prompts: Are some of those more important to you than others?
   b. Why or why not?
   c. Are there any of those things you just listed hard to get a hold of? If so why?
   d. Do you think that/those you just mentioned are the most important to your customers as well?
● Do you communicate where and/or how the meat you serve was raised to the customers?
  ○ If so, how?
  ○ If not, why not?
  ○ Follow up/prompts: Waitstaff, boards, menu? Why that mode?

● Where do you get information on certifications/product claims?
  ○ Follow up/prompts: National Restaurant Association, other chefs, farmers, product supplier (CISCO, Utah Specific), various networks?

● According to the National Restaurant Association the number one trend predicted in 2017 is “new cuts of meats.”
  ○ Do you agree?
  ○ Why or why not?
  ○ What type of beef cuts do you most frequently work with?
  ○ What type of beef cuts are you are excited to try?
  ○ Are the cuts you want to use or want to try readily available?
  ○ If not, what barriers are there to getting them?

● Can I tell you a little more about our product?*

<Participant will be given a set of six characteristics, outlined below, and ask to choose which is most important>
<Depending on what they pick the next option will differ>
<The option picked as the most important will be set aside while the one that was picked as least will be paired with another until the lowest priority is identified and then the pairs will work back up from the second lowest>
<The total list of characteristics that will appear is listed below>
  - Soil Health
  - Reduced GHG Emissions
  - Utah Raised
  - Pasture Raised
  - Marbling Scores
  - Quality Grades

● Would you have any interest in learning more about this project as it develops?
Thank you so much for your time. Do you have any other questions or comments for me?

Phone call questions:

- Would you be interested in purchasing beef from cattle raised on tannin-containing legume crops?
- Is there anything else you would like to add?

**Talking Points**

- **Environmental**
  - Legumes fix their own nitrogen, so synthetic fertilizers do not need to be applied. Also, legumes are productive for several years after they are planting so there is no tilling and replanting required.
  - Low doses of tannins actually improve the efficiency of ruminal fermentation and reduce methane emissions. Also, tannins have been shown to influence the way carbon and nitrogen are cycled in the soil, leading to a more biodiverse soil composition that has a higher capacity for organic matter accumulation, carbon storage, and water holding.
  - They get to slaughter weight in an amount of time similar to conventional feed cattle, suggesting that it may be more efficient than grass-fed i.e. lower inputs for more beef

- **Animal Welfare**
  - Tannins containing legume crops reduce bloat in the animal
  - They get to pasture feed, similar to grass-fed systems

- **Taste & Quality**
  - In consumer evaluation it was comparable to grain-finished beef in tenderness, juiciness, and overall liking
  - It has greater marbling scores and a quality grade (select vs. standard) as compared to grass-fed
  - Redder in color than grass-fed
  - Omega 6: Omega 3 Ratio

- **Local**
  - Working directly with Utah cattle ranchers
Restaurant Demographic Survey

Name of restaurant:

Restaurant location (city)

Age of restaurant:

Owner
  • Chef or independent owner
  • Partnership or corporation

At what is your average price point per meal?
  • Less than $20
  • $21-35
  • $36-50
  • $51-65
  • More than $66

Approximately how many customers does your restaurant serve daily?

What is your seating count?

How many staff are employed here?
APPENDIX D

INTERVIEW TRANSCRIPTION AND SAMPLE CODING SCHEME
K: Come between the two of those.

K: You should have everything done. So really fast I can get these two things. How old is the restaurant?

I1: Two years.

K: Two years. And you're the owner... Is it a partnership or?

I1: Yes.

K: OK. And what is your average price point per meal?

I1: Per person?

K: Yes.(Long Pause) Oh I guess I have some categories here that makes it easier for you.

I1: OK.

K: So how many customers would you say you serve daily and... let's go ahead and just do like a busy season.

I1: Busy season here, about 500...off season. About a hundred.

K: OK. And is like peak winter/peak summer and then side season. OK. And how many people can the restaurant hold.

I1: 260.

K: And how many staff you have working here?

I1: Approximately 46.

K: OK. The rest of those things there. OK. So. How. Let me see if I need to, mumbling... thinking noises....I'll just go without the script So first I was going to ask some questions about you I'm going to skip these first two because I understand what your official title is here Uhm, but how did you get started in the restaurant industry?

I1: I started out in a hotel washing dishes. I was about 16 years old and kind of worked my way into cooking. And. The rest is history. That's as simple as it's start.

K: Yeah.

I1: I fell in love with the cooking and the idea of being a chef and ran with it.
K: Did you go to culinary school?

I: I did not.

K: Just all self taught and kitchens and stuff?

I: Yep yep, all self-taught.

K: Yeah, I think I went to college there in school and I don't think I learned anything there very probably.

I: Yeah or you probably forgot it.

K: And then how would you describe your cooking style.

I: Pretty...Pretty bold in the fact that I like to use less ingredients more powerful flavors and ingredients.

K: Do you consider yourself on the cutting edge of restaurant trends.

I: No. No.

K: If not where do you place yourself?

I: I don't place myself anywhere I can just make my own way.

K: Do you think are there like other places in the area. Because I mean when you look at the uhm, or what would you even define as kind of cutting edge.

I: It's kinda hard to define these days.

K: And then what do you consider to be the most desirable and or interesting qualities for beef.

I: So interesting qualities definitely you go, you're looking, for 1) beef flavor, almost kind of nuttiness and a little minerality to it which a lot of flavor comes from
comes from fat content. So, that would be what I would say. Desirable, you know, I think it's a little bit on the eye of the beholder because you can sit here and say that this amount of fat to this is 100 percent fantastic. From a consumer standpoint for me. Sustainably raised and humanely use treated is what I desire it doesn't really matter if it's corn fattened cow that pollutes the environment. To me, yeah, you can fake something or feed an animal a certain way to get the desired effect. That doesn't mean it's sustainable.

[00:05:30] K: Yeah.

[00:05:30] I1: So you kind of got to look at that question about two terms. You know as a consumer or as a responsible use chef. So double answer double questions.

[00:05:43] K: That Works. So the next set of questions is sort of geared... And you answered a couple of these while I'll edit them as we go if I feel like they've been covered... your perceptions and purchasing habits of non-conventional slash sustainable beef. As I'm sure you are aware there are a lot of different ways in which beef can be raised. Now in a lot of different ways in which it can be certified. And so just sort of figuring out. What. Buzzwords mean something to you which we touched on a little bit above. So are there any. Specific labels or certifications you touched on production standards.

[00:06:23] I1: Yes.

[00:06:24] K: But is that more. Are you figuring this out from the producer or are you getting this information provided to you second hand through the label.

[00:06:37] I1: So just take a take what Niman Ranch has done to the pork industry right. That's a standard here. Meaning you, the food product can't make it into the back door here unless it's that standard or better.

[00:06:52] I1: And that goes for all proteins that we serve here. It has to be this certain standard to kind of make... you're fine common... (he gets a steak sandwich brought to him, indistinct chatter, apologize for interrupting.

[00:07:08] K: Oh no it's OK.

[00:07:13] I1: So and I don't take that at first hand. You I use Neimann as an example because they are. There even third-party just to make sure they're holding their own standards was it was put in the foundation of the company. I'm more of a show me kind of guy.

I1: I mean if I'm going to use your product chances are I'm paying your farm a visit. So I kind of work on those standards. I don't necessarily take things at word.

K: Yeah.

I1: You've got to show me.

K: Yeah that seems to be kind of like. In literature it shows that consumers are sort of drifting away from those certification claims.

I1: I mean if I if I could I could be frank. You know honestly you might have to edit this out. But I'll tell you the USDAs full of shit.

K: Yeah.

I1: I think they're all I think they're full crap. I think the FDA is foolish. You know things that I've been tested, and they know that there is a better way to do it, yet they don't do it. That's that's bullshit in my book. You know they don't do it because the people that are lobbying against it. Right. Not to get political but you know I'm sorry I don't take that into my food when I serve it.

K: Yeah. Yeah.

I1: You know food's been around since the beginning of time. You know there's there's things there's forced down producers' throats there's things forced down consumers' throats by the FDA and by the USDA that I'm sorry those organizations only been around for 70 years 100 years maybe, but people been eating food for, for, you know that they well have had food since the beginning of time. We've never needed that stuff right yet so (Interruptions). So that's my take on it.

K: Yeah.

I1: We have kind of kind of loaded against it though. You know it's ugh, why do you... there aren't more organic farmers. Well you've got to pay twenty thousand dollars to get certified organic. That's bullshit.

K: Yeah.

I1: You know what I mean. They should be paying the farmer for that, the systems messed up. In my opinion just my opinion but that's that's kind of it I think I think it is the same for beef pork production. You know you change that you'll change everything but you gotta start there.

K: And then do you think that that what you just described is important to your customers.
[00:10:21] I1: Absolutely.


[00:10:23] I1: I honestly do. You know I'm not going to go make the blanket claim of 100 percent. But the savvy diner the people who follow us on social media the people that you know look up the Web site read our story before they they come here and you know I would say it is a large percentage you know. And that's what you know I mean you look at the menu. I rarely namedrop farms. I rarely put stuff like that on the menu. Reason being is because when you walk through those doors that's an expectation. That's why you should be doing the right thing. Right.? So it doesn't need to be said on the menu because if you've done any research or history we try to sort out and do the best we can from the get go. So you don't even have to worry about it.

[00:11:21] K: Is it pretty easy to get the quality that you desire consistently. Or.

[00:11:29] I1: You know the thing about that is. No it's not. Is it a lot of work up front? Yes. You've got to do it if you're not committed to the calls are committed to changing things or doing better. Yeah, it's going to be you're going to fail all the time you know but you're committed to do the legwork up front. Set your standards. Everything falls in place from what I find.

[00:12:12] K: And so when looking at all of those the things that are important to you. Is there one that you can tease out more than the other or for you is that standard of animal welfare gain sustainability all important.

[00:12:33] I1: I mean I don't think that you can, I don't think that I can. Good to be honest with you. I can tell you one that doesn't necessarily make it so. And that's necessarily the critique or the or the flavor of say beef for instance say I'm working you know. I'm I'm more apt to change my recipes or alter what I do to match the complexity of the beef whether it's a grass flavor mineral flavor or something you know super iron like you get with South-American be from Australia and stuff. I'm more apt to change my recipe if I know it's raised sustainable and humanely. Right.


[00:13:28] I1: So I would. It's tough to say because sustainable is humane. They kind of all fall under that umbrella so we can use that big ol' word sustainable.


[00:13:41] I1: To me it might mean to me it's it's not like oh it has to you know it has to be. The carbon footprints has to be... You know you throw the word sustainable out there. I mean you know people have turned it into something that that kind of crazy, right? sustainable means nothing more than just doing the right thing. Right. So if you're
If you're producing beef that the methane count is through the roof. Right. A little lean towards. That's not the right thing to do right knowledgeable. Well if you're putting it in a feedlot and it's walking around in its own stuff up to his knees. Ninety percent of it's life. I'm going to say not the right thing. Yes. That's not humane. So if you look to the core of the word sustainable to me just means doing the right thing you know. Yeah that's that's all that's what I teach my staff. Firstly you've got to look at it when you when you when you do something is it the right thing. You know I think that's that's it. I think the word sustainable gets bastardized a lot. You can't simplify it more than just saying "am I doing the right thing.

K: Yeah, I have had to write many reports on defining what sustainable is.

I1: Yeah it really does I'm kind of kind of a simple guy.

K: Yeah.

I1: Do the right thing and that will be sustainable.

K: So you sort of touched on my next question and I just want to make sure that I captured everything and this was I'm How do you communicate where how the meat you serve was raised to customers. And so you mention that on social media or the Web site or you can read the story that it's not really on the menu because it's already in an understanding.

I1: Yeah.

K: And then also with the staff. Educating them on what your mission is so that they can communicate that to the customer.

I1: I think the biggest thing is you know doing the right thing is at our core foundation that's in our mission statement is what the restaurants revolve around. I think that message gets out there in a couple ways to the guest. A lot of social media education of them as well. You know this the staff educating them about what we stand for when when the waitstaff has an interaction with at the table. And to the staff I educate the shit out of them. I mean we have food seminars Weekly.

K: OK.

I1: I sit and I talk plainly as plain as day about that word our favorite word sustainability and everybody asked me this question, that question, what is the right thing to do. It eventually pops and they get the whole umbrella.

K: Yeah. Very cool. Okay. Moving Along. So it sounds like, as far as where you get information from on certifications and product claims you. Basically go to the farmer.
I1: Yeah you know I could give I could give two craps about a farm being certified organic.

K: Yeah.

I1: I could care less. You know and when I come to it when it comes to the farm. Right. I'm either seeing one of two things bags of fertilizer or piles of compost. If I see bags of fertilizer probably not going to use ya, you know I can't make the statement that we're like 100 percent organic. It's not true. That's, I wish.

K: Yeah.

I1: So as soon as we get rid of the USDA FDA will work on that but until that changes it's going to be almost impossible for this type of restaurant to do that. But every day we come in we try to do the right thing. Source from people have a compost pile. Not fertilizer.

K: A lot of good quotes in here, thank you.

I1: I'm a pretty simple guy.

K: So according to the National Restaurant Association the number one trend predicted in 2017 is new cuts of meat and that's something we're kind of interested in. Learning more about because with these farmers who the research team is working with they have the concern Oh if we switch this production there you know chefs are just going to want these cuts that you know how are we going to make up for money. So we were just interested in learning more.

I1: So here we hear is you always have to take the trend and these new trends and stuff with a grain of salt. They're saying new cuts of beef. Well, there ain't nothing new about it. This. This is, you know, at the cutting-edge food is, is new cuts and you know why. Because beef prices are outrageous. You know when I started in this business you get short ribs for under $3 a pound. They're quadruple that now. So you have to you have to use your head and learn how to use these other cuts. You know I buy half steers. And I use some of the craziest cuts that are out there.

I1: If you go back if you go back and learn a bit about Europeans style butchering opposed to American style butchery. All of a sudden the stuff starts working and it make sense.

I1: It just goes back to the way they've been doing it a while . You know we're still relatively young country compared to what's been going on in Italy and France and the rest.

Yeah.
So I find myself yeah I'm not going to disagree with them.

Yeah.

But I don't think they're as sharp as they think they are.

K: So it's more going back to their roots and that idea of even whole, which using the whole animal would technically be doing the right thing.

I1: Correct. It goes back to that whole simple thing. Waste not want not.

K: Then I don't have this question on here which is silly that I don't, but will you just tell me a little bit about where you get your beef from right now because I know you kind of have an interesting.

I1: So 90 percent of my beef comes from a ranch in Idaho called desert mountain.

K: OK.

I1: There 100% are grass fed or wild forged cattle. So you know everybody dragging their feet in the cattle industry corn grass you know kicking and screaming. Well corn, corn and soybean is a fatter more rich, delicate, buttery whatever yadda yadda yadda. OK. OK. We get it we get it but at what cost. Right. All these guys and you talk to them and they're like No we're just dumb Cowboys. Nah, I don't think so. OK how do you how do you get grass fed, 100% grass fed or wild forest cow to eat like corn. Well instead of like trying to force something the or just like finish it on corn, which is it's gotta be just as bad, they bred it. So they took it to Angus steer and breaded crossbred it with wagu okay naturally you know you have different, different cattle of course just like you know some pigs were raised for fatback some are raised for bellies similar you know. So if you want something if you want something to have marble or a natural fat in its genetics go with wagu.

K: OK.

I1: Now you can't run around having wagys all over the place because that's not that's super expensive. That's right. You're talking a whole different whole different dynamic. Right. But if you can get the Angus to take that particular gene you can get it to breed and get that to breed out into the meat. So they kind. Of. Outsmarted everybody.

K: Yes.

I1: Which was smart and they're doing it right way. And they're the only ones doing it. The only ones that are.
K: OK.

I1: But the products great. Yeah. They stand behind it. So like I said foot work up front. I just looking why I don't need to shop around at it only to shop for real and.

K: They're pretty consistent with.

I1: The can be yeah. If I do have any inconsistency in between in between them or to fall back to niman is OK.

K: So that's kind of your back is going to niman. OK.

I1: Well the reason I say that I say I prefer the desert mountain now is not that there's anything wrong with the niman product. It's just that that's 90 miles away. Yes. It's not you know I tried to source local as possible. OK. Niman pulls from California, pulls from a lot of other places to fill its orders.

K: That's what I've heard. OK. So the next part and we're almost done which is nice because when I wrote this I was thinking this is going to take forever. So you already ate the beef that we gave you. Thank you for filling out the survey as well. It looked like they were pretty. Everyone was solid. They had the gall. I don't know who said this but something like not or not a remarkable steak but a good steak and was like well that's a compliment right.

I1: I mean it was pretty good. Honestly you know in me knowing that. What that it was whoever was raising that was doing the right thing with it would make me more proactive and using the product.

K: OK.

I1: So it's tough. It's tough to say. It's a good steak not a great state it's kind of a tough say because you know, well, where are you comparing it to? Right. I think that's where a lot of chefs may be a little bit more full of themselves.

K: Yeah.

I1: You know because of course my god that's not going to eat like American wagyu because it's not American wagyu. The American wagyu is not going to eat like a five Kobe. You know so what are you comparing it to.

K: Yeah that's the thing I was kicking myself after I put out the survey because I said I didn't even ask them on that. What do you normally work with. Because you know if you get these lower scores of what are you serving corn because they know a couple of chefs in the survey they do have concerns with the sustainability of the conventional system but at the same time they just aren't willing to give up that taste
quite yet. And so sort of working....I mean it's really interesting and I feel lucky to have
different chefs with different perspectives because.

[00:25:40] I1: Think you almost kind of got to say you know guys are you kind of
comparing apples to apples... what's going on it was going.


[00:25:49] I1: It's kind of an unfair opinion in my opinion but then whatever.

[00:25:56] K: Yeah. Yeah it can be really. Mm hmm.

[00:26:01] I1: And I thought for what it is knowing the background that it was good it
was really really good.

[00:26:06] K: OK.

[00:26:06] I1: I hardly ever get greats. So don't even take offense.

[00:26:08] K: OK.

[00:26:12] I1: Great would be if the could live and still feed us.

[00:26:20] K: And he was a spunky guy. I went and saw him. I liked the whole thing go
through. So that was exciting.

[00:26:29] I1: Well you know we all got to meat the end sometimes .

[00:26:35] K: Yeah, I've been hanging out with the butcher class this semester and I've
learned so much like I saw hot dogs get made the other day and people were like oh I bet
it was disgusting and was like it wasn't that bad.

[00:26:44] I1: Not so bad.

[00:26:45] K: NO. So I'm just going to touch on some of the main benefits of the beef
and then I have this. Kind of like contingent evaluation exercise. But I think we'll see
how it goes. So some of the main points so as far as environmental benefits go the fact
that legumes fix their own nitrogen, so you don't need to put synthetic fertilizer on there
and they're also a perennial crop so there's not heavy tilling every single season. And then
the low doses and tannins actually improve the efficiency of or fermentation. So they
reduce methane, methane emissions and then the research team got hold of this after I
wrote the final draft. Also, tannins have been shown to influence the way carbon and
nitrogen are cycled in the soil leading to more biodiversity composure. So go ahead if
you need to take that (Phone Rings).
[00:27:42] I1: Shit. Uhm I'm going to have jump that was an emergency call.

[00:27:51] K: OK. No that's fine. Well we can just finish up. I could even if you wanted I could just send you. This is basically what it is getting to. What's the most important quality for you to reduce greenhouse gas quality grade marbling scores. Pasteurized or Utah raised. But it sounds like. I can almost. From what you were saying. You know like this. I.

[00:28:19] I1: I Mean you know just because these, these are secondary because I think if you if you nail this. This is going to eventually come into play. Yeah.

[00:28:32] K: Okay perfect. Thank you so much. That was really helpful.

[00:28:36] I1: Oh absolutely.

[00:28:38] K: I appreciate your participation and your honest answers yeah and yeah and your enthusiasm.

[00:28:45] I1: Yeah. Let me know anything else I can help you with.

[00:28:47] K: Yeah. I think if I have any follow up questions I'll just send you an e-mail. And then you got a fact sheet. OK. And I'll send you one I have the official factsheet for the Chefs.

[00:28:59] I1: OK.

[00:29:00] K: I'll go ahead and send you a copy if you're interested in that. And if you for some reason wanted to wade through my thesis I can send you a copy of your son.

[00:29:09] I1: I would be interested.

[00:29:10] K: Do you have your menu online.

[00:29:12] I1: OK.

[00:29:13] K: Perfect. I'm just going I'm doing a little scoring exercise.
**Relationships With Producers**

“I hope so. I hope they understand that the reason we do things, is because I know, I'm personal with all of my ranchers. I know exactly how all of my meat was handled before it comes to me. And some people certainly do appreciate that. The story behind it, but some do not.” I.3

“I find that consistency can be an issue initially. Um, we, you know, we've worked a lot with our farmers and ranchers in tandem to make sure that we can get fairly consistently fatty grass-fed beef year-round fresh because we don't do any freezing” I.5

“Straight from the ranchers are ranchers and, or the vendors. We also go to websites and if there is a third-party opportunity to do so, meeting with other chefs or um, through, you know, website means we will go down that road. Um, but sometimes you get to a point where there's, you know, most of it comes straight from the vendors, you know, working with, uh, some of the certified grass-fed guys. Um, you know, we've gotten some more information from some of our purveyors that way. Um, but it's kinda hard to get to the root sometimes unless you visit the farms and go from there.” I.9

“I think when you go outside of commodities beef tends to be a little different each time. Um, Inconsistencies are ok as long as we are seeing the who, what, where, when, and why of those consistencies in a way. I mean we are growing with our ranchers in the sense that we're continuously giving feedback to them. so they can, um, on a small farming level, kind of start to get a little bit more consistent every time, but we don't have feed lot animals, so there might be slight inconsistencies in growth patterns, marbling, but that's ok as long as they are not too drastic.” I.11

**Sustainable**

“To me it might mean to me it's, it's not like oh it has to you know it has to be. The carbon footprints has to... You know you throw the word sustainable out there. I mean you know people have turned it into something that that kind of crazy, right? sustainable means nothing more than just doing the right thing. Right. So if you're producing If you're producing beef that the methane count is through the roof. Right. A little lean towards. That's not the right thing to do right knowledgeable. Well if you're putting it in a feedlot and it's walking around in its own stuff up to his knees. Ninety percent of it's life. I'm going to say not the right thing. Yes. That's not humane. So if you look to the core of the word sustainable to me just means doing the right thing you know. Yeah that's, that's all that that's what I teach my staff. Firstly you've got to look at it when you when you when you do something is it the right thing. You know I think that's, that's it. I think the word sustainable gets bastardized a lot. You can't simplify it more than just saying "am I doing the right thing.” I.11

“Um, and I was very interested in seeing if I could help create a more sustainable agricultural system in regards to livestock here in Colorado. Um, I think you see a lot of that happened in the northeast and in New York where you
I was also interested to see if we could sort of enact that here in a space in a much drier climate in a high desert. And, uh, so that's kind of what got me into it. Um, I am motivated by restoring native grasslands.”

“Yeah, that's part of the hunt. Uh, definitely, uh, you know, the growth hormones, antibiotics and GMO feed are critical to me and I don't support those programs. Or did you use any of those? So it never, ever a program and humanely treating the animals while they're alive is also very important to me and how they're, you know, like, uh, in, in cattle which is different than. Well I guess it's not different. I mean the farming practices to the residual pollution or contaminants left behind in some of the farming practices. Is it sustainable, is very important to me. Sustainable? Well, that's a leaving no footprint is basically sustainable to me. Close to biodynamic, but that's a little unrealistic in a lot of farming.”

“Um, I would say what you're depositing in and what you're taking out, um, as a, as a farmer as well. I'm an urban farmer. Like I said, you know, knowing what I'm putting in the soil and what I'm taking home, is to me a sustainable model, it's like that a lot with beekeeping, you're not going to pull more honey out and sacrifice the hive for just taking honey for that morning. But that's a short-term growth. So that's my opinion on it, which, where I really feel is that if we don't get that right or in terms of, you know, a larger world vision that will bring the cost of beef up and that's either going to make people happy or not just like gas prices. Right? So if you're doing it right or if there's a majority of people doing it right, that leads to a larger, better, more beneficial ecosystem and it's just a matter of people and by people, I mean maybe the guests that are coming in actually paying for it. I want to make that differentiation for what they're spending.”

“I swear I have a lot of my customers because I'm still doing a beef tenderloin and I'm still doing a New York Strip, and everywhere else is doing, what do they call it a bavette cut or a little skirt...”

“Sometimes you're just in New York Strip girl and that's all you need and that's fine to. We're not here to judge. I really believe that as butchers. You want to cook your steak. Well done. Go right ahead. You want to eat a New York strip every day for the rest of your life? You go right ahead. Just do it to, you know, try to try to eat meat, eat smaller portions, less often.”

“And it's interesting to me because as I go out to a guest, um, they either choose, depending on their education level that say, waygu is the best because they heard it is, it's the most expensive or there's people that have actually tasted beef and generally they feel that the grass fed or the dry aged, their favorite. Um, but it really comes from a cultural background and it's completely subjective. Every table I go to is very different.”
“Um, I think a lot of people are still just sticking to what they know, at least from our perspective. You know, people come here and because you're spending a lot of money on beef, if they have, it seems like if they have a lot of money then and they come to steak houses often they're interested in something that's a little bit more exotic or different meaning beyond the rib-eyes and New York's and the tenderloins. And so we do offer those, tritips, coulotte, flatirons, things like that. And because our staff is trained to speak to the specific cuts of what they taste like and how they are going to be grained, you can have someone who has a still a good, a good dining experience because of that, but you're not going to talk a tenderloin eater into a bavette that it's a very rare occurrence” I.9

“If you're a normal joe coming off the street, trying to learn from a server about why I should try a pasture raised when I've heard or read so much about Wagyu beef, let's assume pasture raised in this respect is a grasp at hundred perc

“We opened the restaurant based or trying to be as local as we could. It was all Colorado product when we started, and we still do all Colorado Beers. My ranch moved since we opened their now in Wyoming, but it's still as local as I can get for the quality that I'm getting.” I.3

“We definitely are a local organic driven food outlet…. I get it [beef] through Lombardi Meat Brothers. There are local Colorado Company and we really pride ourselves on sourcing Prime Certified Angus beef within Colorado, Utah, Nebraska, Wyoming-ish, beef country” I.4

“Middle of the road here, Utah raised doesn't mean the quality is going to be where it needs to be for the restaurant. So if the quality and if it's the quality that I'm looking for and locally raised than a top priority, if it's not quality and Utah Raised it's just not a priority” I.7

“Depending on where you are geographically. When I worked at the (Omitted) in Portland, which is where our original one is, we had more options to get Wagyu beef as far as whole animal. Uhm not every steak house has the ability to break down a whole beef, so we're a little bit of an anomaly because of that as well. Um, but in Colorado not really. We have a lot to choose from, but when you're talking about smaller family run ones, they're a little bit harder to find, and a little bit harder to get as far as the price point is concerned.” I.9

“Just because it's Utah Raised doesn’t mean it’s desirable” –I.11
“Marbling and Utah Raised” I.13ent grass fed. You're either going to question that or you're going to go with saying, hey, I'm prepared to spend $80 on steak tonight. I know that I've had waygu in the past I'm not going to risk something on a grass-fed beef being lean because of like a fatty cut and there you go.” I.9

“A flavor and again texture. Tenderness. We're getting, we're getting a lot more people that are worried about what they're eating as far as what the animal had been fed, what's in the food, what's in the food chain is becoming a priority. I'm also seeing that people just because it means just because it says it's grass fed, people think that it's going to be better quality, but that's not necessarily always the always the factor.” I.13

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“Yeah you know I could give I could give two craps about a farm being certified organic…. I could care less. You know and when I come to it when it comes to the farm. Right. I'm either seeing one of two things bags of fertilizer or piles of compost. If I see bags of fertilizer probably not going to use ya, you know I can't make the statement that we're like 100 percent organic. It's not true. That's, I wish So as soon as we get rid of the USDA FDA will work on that but until that changes it's going to be almost impossible for this type of restaurant to do that. But every day we come in we try to do the right thing. Source, source from people have a compost pile. Not, not fertilizer.” –I.1

“So you know, there's these huge companies that have organic. You look into it and it's 75 percent organic material and just filler and there's all this other stuff in it. It comes back to integrity and responsibility one the operator. Me, as the chef, I make those decisions. Fortunately I work with an investment group that allows me to make those decisions and that's why we're sitting here talking about the decisions that we make along the way. That's why I brought (omitted) here to try….” I.4
“Yeah. So we decided a while ago that we weren't going to require, um, we were never going to require organic certification because I actually think their animal welfare standards are complete crap and we consider ourselves well beyond organic” I.5

“The fact that it's grass finished in terms of quality grading, that's something that we do in-house because USDA choice, select, prime.... first of all, a hundred percent grass fed beef is never graded on that scale. Second you know, it's something I want to see the idea of (A5?) waygu where it's like 50 percent meat and 50 percent fat is stupid to me anyway.” I.5

“Google search, yeah, Google search "What this is," you know, what, what does humane certified mean, and it goes right to their website. And I know a lot of these small farmer can't afford to do that as well. You know, we're working with a small farm and their like I'm not going to pay $60,000 to get certified because I can't afford that. But really, I mean when I'm working with smaller farms, I'm not really worried about how they treat their animals as much as some of these larger corporate farms, or I know, I grew up on a farm and I know how small farmers, how they treat their animals. Um, so I'm not as concerned with the small guys being humane certified. I know that like 99 percent of the time, they're like family pets a lot of the time on a small farm.” I.8