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Beef Consumer Attitudes in Kaua'i County

Matthew H. Stevenson
Department of Human Nutrition, Food, and Animal Sciences

Summary

Beef production continues to be a consistently strong agricultural industry in Hawai'i. To better understand local attitudes and behavior among a cross-section of residents, the Kauai Cattlemen's Association conducted a brief survey at their beef promotion booth during the Kauai County Farm Bureau Fair in Līhu'e in 2013, 2014, and 2015. From about 200 respondents each year, survey results trends are as follows:

- Kaua'i residents (>87% total)
- Beef is bought most often per week compared to other proteins (~50% total)
- Taste preference drives purchasing over cost, health benefits, or other factors (>42% total)
- At home, steaks were cooked most often compared to other types of beef (>60%)
- Tenderness and secondarily flavor rank as lead factors in steak eating quality

Following this preliminary assessment of largely positive attitudes towards beef consumption, future research should focus on deeper demographic analysis, taste panel comparison of local and other types of beef, market surveys (demand by different consumer groups), local production trends (supply), and attitudes towards different beef types on the market (cuts, organic, natural, local, grass-finished, etc.).

Figure 1. Visitors to the Kauai Cattlemen's Association beef promotion booth at the Kauai County Farm Bureau Fair in Līhu'e.

Introduction

As one of the oldest commercial agriculture industries of modern Hawai'i with the introduction of cattle in 1793, beef cattle production currently ranks as the third highest agricultural product in the state (Henke 1929, USDA-NASS 2013). Beef cattle production as compared to other agricultural sectors has remained relatively constant amid many shifting uncertainties in local, national, and global production and marketing. With the opening of a new slaughter and processing plant and the expansion of two others in Kaua'i County, understanding local trends

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in beef consumer attitudes will help shape production and marketing efforts. As a result, the Kauai Cattlemen's Association (KCA) conducted a brief survey of visitors to their beef promotion booth at the Kauai County Farm Bureau Fair for the last three years (Figure 1). The purpose of this publication is to summarize and interpret the findings of these surveys. The majority of respondents claimed Kaua‘i County residency; therefore, to focus on this demographic, only responses from Kaua‘i County respondents are reported in this publication.

Methods

Individuals visiting the KCA beef promotion booth at the Kauai County Farm Bureau Fair at Vidinha Stadium in Līhu‘e in 2013, 2014, and 2015 filled out a brief survey. Upon completing the survey, respondents received a free beef sample prepared by KCA members. Distribution of beef samples continued well after running out of survey forms. The survey consisted of four multiple-choice questions about preference and one concerning residence:

What do you buy the most of each week? Circle ONE:
a) Beef
b) Chicken/poultry
c) Pork
d) Fish
e) Other protein

What drives that purchase? Circle ONE:
a) Cost
b) Taste preference
c) Health benefits
d) Other: _____

What type of beef do you cook the most? Circle ONE:
a) Ground beef
b) Roasts
c) Steaks
d) Stew meat

What is MOST important for a good steak?
a) Tenderness
b) Flavor
c) Juiciness
d) Other: _____

What is your U.S. zip code or home country?

Results

Demographics

In each year, the majority of respondents (>87%) claimed Kaua‘i residency (Table 1). Līhu‘e and Kapa‘a residents accounted for >60% of respondents each year (Table 2).

Most-Purchased Protein per Week

Roughly half of Kaua‘i respondents claimed to buy beef the most per week (Table 3, Figure 2).

In total, beef and chicken account for >78% of reported weekly purchases.

Lead Factor Driving Purchases

Taste preference is the leading single factor driving protein purchases, with health benefits and cost being distant alternative motivators (Table 4, Figure 3).

Notably, respondents who indicated buying chicken/poultry or fish the most per week are driven by perceived health benefits; In contrast, beef purchasers are strongly

Table 1. Summary of state or country of residence as reported by survey respondents.

Residence	2013		2014		2015	
	Count	% of total	Count	% of total	Count	% of total
Hawai‘i	180	93.3	178	88.1	181	89.6
California	3	1.6	6	3.0	12	5.9
Washington	3	1.6	2	1.0	3	1.5
Canada	2	1.0	-	-	-	-
Florida	1	0.5	-	-	-	-
Oregon	1	0.5	-	-	-	-
Utah	1	0.5	-	-	-	-
New Jersey	-	-	3	1.5	-	-
Arizona	-	-	2	1.0	-	-
Colorado	-	-	1	0.5	-	-
Idaho	-	-	1	0.5	-	-
Iowa	-	-	-	-	2	1.0
No response	2	1.0	9	4.5	4	2.0
Total	193		202		202	

motivated by taste preference (>59% each year; Table 5). Low drivers, as specified in the "Other" category, were indicated as local, organic, and grass-fed.

Beef Cooked at Home

Steaks are the clear top beef choice (>60%) for home consumption, with ground beef a distant second (~20%) over roasts and stew meat (Table 6, Figure 4).

Most Important for a Good Steak

Tenderness was the clear top factor selected for a good steak in 2013 and 2014, with tenderness and flavor evenly split in 2015 (Table 7, Figure 5).

Juiciness, though still nominal, was much more emphasized as an important factor in 2015 versus previous years.

Table 2. Distribution of Kaua‘i County respondents.

Town	2013		2014		2015	
	Count	% of total	Count	% of total	Count	% of total
Kapa‘a	55	32.2	47	27.7	53	29.8
Līhu‘e	53	31.0	56	32.9	62	34.8
Kōloa	17	9.9	17	10.0	7	3.9
Kalāheo	12	7.0	7	4.1	8	4.5
Anahola	7	4.1	2	1.2	7	3.9
Lāwa‘i	7	4.1	10	5.9	-	-
‘Ele‘ele	4	2.3	3	1.8	8	4.5
Hanapēpē	4	2.3	3	1.8	2	1.1
Kīlauea	3	1.8	6	3.5	17	9.6
Keālia	2	1.2	2	1.2	2	1.1
Kekaha	2	1.2	3	1.8	5	2.8
Princeville	2	1.2	5	2.9	3	1.7
Waimea	2	1.2	4	2.4	2	1.1
Hanalei	1	0.6	2	1.2	1	0.6
Hanamā‘ulu	-	-	2	1.2	-	-
Kaumakani	-	-	1	0.6	-	-
Makaweli	-	-	-	-	1	0.6
Total	171		170		178	

These overall trends in steak preference were similar among those who indicated they cooked steak the most at home over other types of beef.

Discussion

While these data reflect preferences of a small pool from the population of Kaua‘i County, the fairly consistent responses over three years gives a preliminary indication of trends in beef purchasing and use in this community.

Table 3. Kaua‘i County respondents' responses to protein purchase question.

Protein	2013		2014		2015	
	Count	% of total	Count	% of total	Count	% of total
Beef	95	55.6	86	50.6	86	48.3
Chicken/ poultry	40	23.4	47	27.7	62	34.8
Fish	12	6.2	15	8.8	13	7.3
Pork	8	4.7	9	5.3	6	3.4
Other protein	3	1.8	1	0.6	4	2.2
Multiple answers	13	7.6	12	7.1	7	3.9
Total	171		170		178	

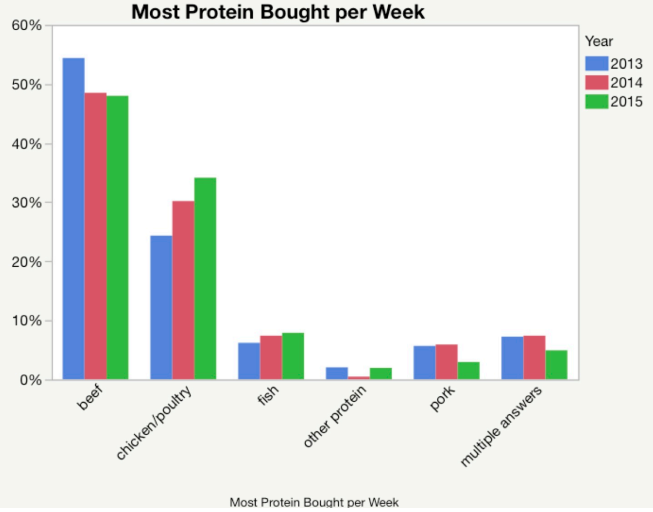

Figure 2. Summary of Kaua‘i County responses to most-purchased protein per week.

Table 4. Kaua‘i County resident responses to drivers of protein purchases.

Factor	2013		2014		2015	
	Count	% of total	Count	% of total	Count	% of total
Taste preference	73	42.7	78	45.9	79	44.4
Health benefits	42	24.6	37	21.8	47	26.4
Cost	40	23.4	37	21.8	44	24.7
Other: Availability	1	0.6	-	-	-	-
Other: Appearance	1	0.6	-	-	-	-
Other: Grass-fed	1	0.6	1	0.6	-	-
Other: Organic	-	-	1	0.6	-	-
Other: Local	-	-	1	0.6	1	0.6
Other: Non-specific	3	1.6	5	2.9	-	-
Multiple responses	9	5.3	11	6.5	6	3.4
No answer	1	0.6	-	-	1	0.6
Total	171		170		178	

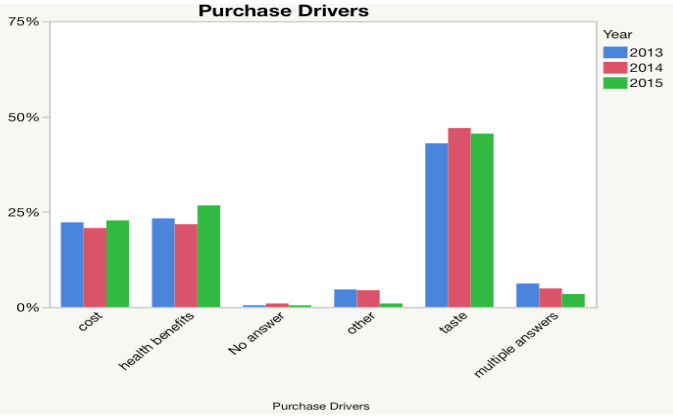

Figure 3. Kaua‘i County resident responses to drivers of protein purchases.

Table 5. Drivers of purchases sorted by most-purchased protein per week.

Most bought/ week:	2013		2014		2015	
	Lead Factor	% (Total)	Lead Factor	% (Total)	Lead Factor	% (Total)
Beef	Taste	59 (105)	Taste	67 (98)	Taste	68 (97)
Chicken/ poultry	Health	49 (47)	Health	36 (61)	Cost	41 (69)
Pork	Cost	46 (11)	Taste	42 (12)	Taste	50 (6)
Fish	Health	67 (12)	Health	53 (15)	Health	75 (16)
Other Protein	Health	50 (4)	Health	100 (1)	Taste & Health	50 (4)

These data suggest that Kaua‘i County residents strongly prefer beef steaks to other forms of beef and other available proteins, and that tenderness is a leading factor for consumer satisfaction. Previous assessments have shown that on average locally produced ribeye steaks available at retail on Kaua‘i are considered sufficiently tender, though consistency in supplying tender beef needs improvement (Stevenson et al. 2012, Stevenson et al. 2010). Beef studies elsewhere in the state have shown a general improvement in Hawai‘i beef tenderness (Kim et al. 2015, Fukumoto and Kim 2007). As the Hawai‘i beef industry continues to develop production and marketing, an in-depth study of a wider array of variables linked to more specific demographics is warranted. Specifically, some areas to study in the future among Hawai‘i residents include the following:

- Attitudes toward local versus imported beef
- Attitudes toward forage-finished, organic, natural, and other designations of beef
- Degree of willingness to pay for various guarantees or other assurances, e.g., certified tender, local, organic, forage-finished, etc.
- Self-reported purchasing habits as compared to retail sales data

Table 6. Kaua'i County residents' type of beef purchased for home use.

Beef Type	2013		2014		2015	
	Count	% of total	Count	% of total	Count	% of total
Steaks	105	61.4	107	62.9	109	61.2
Ground beef	27	15.8	40	23.5	44	24.7
Roasts	13	7.6	9	5.3	7	3.9
Stew meat	9	5.3	5	2.9	7	3.9
Multiple answers	16	9.4	9	5.3	10	5.6
No answer	1	0.6	-	-	1	0.6
Total	171		170		178	

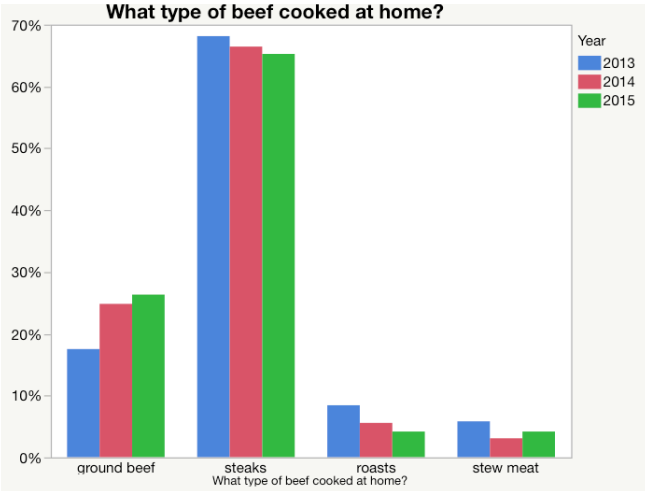

Figure 4. Kaua'i County residents' type of beef cooked at home.

- Any general differences in attitudes and preferences among consumer groups, e.g., restaurants, home users, schools, as well as basic demographics such as gender, race, or age
- Evaluation of choice of protein and beef cuts against household income, gender, religion, or other demographic factors.

Table 7. Kaua'i County residents' preferences for steak eating quality.

Quality	2013		2014		2015	
	Count	% of total	Count	% of total	Count	% of total
Tenderness	80	46.8	74	43.5	60	33.7
Flavor	46	26.9	49	28.8	65	36.5
Juiciness	12	7.0	14	8.2	29	16.3
Other: Local beef	3	1.8	-	-	-	-
Other: Marbling	2	1.2	-	-	-	-
Other: Grass-fed	1	0.6	1	0.6	2	1.1
Other: Healthy	-	-	1	0.6	-	-
Other: Non-specific	-	-	2	1.2	-	-
No answer	-	-	1	0.6	1	0.6
Multiple answers	27	15.8	29	17.1	21	11.8
Total	171		170		178	

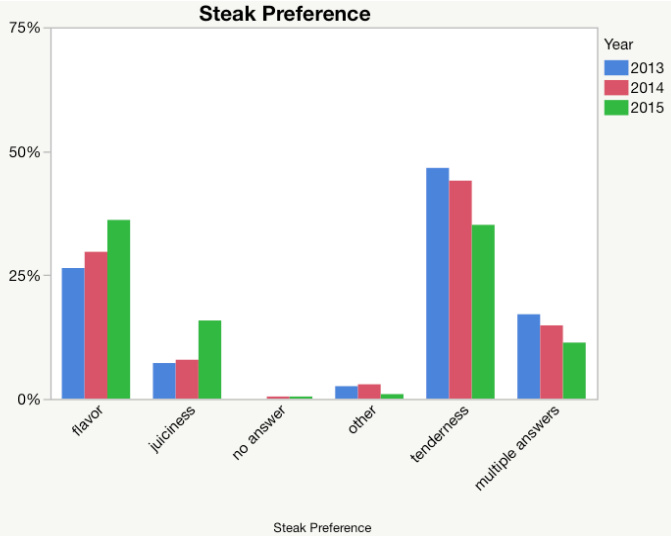

Figure 5. Kaua'i County residents' preferences for steak eating quality.

- Taste-testing panel to determine local forage-finished beef attributes
- Data on the production (slaughter numbers) of quality grass-finished beef production on Kaua‘i (supply)
- Market survey of demand of local of beef on Kaua‘i.

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