

Northern California Niche Meat Market Demand Study

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Executive Summary

This report is part of a three-pronged feasibility study for a mid-scale, USDA-inspected multispecies slaughter and processing facility to be built on the northern coast of California. We assessed market prospects for "niche" red meats – such as certified organic, grass-fed, naturallyraised, local, Kosher, and Halal – in the San Francisco/Sacramento region.

Below is a summary of our findings. We conducted 42 interviews with individuals responsible for meat purchasing in three key sectors of the food distribution system: restaurants and institutional food service providers (IFSP); retail grocers, primarily regional chains but also one-store operations and national chains; and distributors. We also examined the recent literature – articles in academic, trade and mass media publications – regarding the U.S. niche meat market.

- Demand for niche meats is growing rapidly in the U.S. In 2006, sales of natural and organic beef in grocery stores increased over the previous year by 28.4% in dollar value and 24.5% percent in pound value. Three-fourths of our respondents expected the volume of niche meats they handle to increase over the next year and also over the next three years.
- Consumer demand for niche meats is often motivated by the belief that natural and organic meats are fresher, have better nutritional value, taste, and long-term health benefits than conventional meats, and that the animals are healthier and better treated than conventional livestock.
- The most popular red meats are beef, pork, and lamb. The most popular niche categories are naturally-raised (no hormones or antibiotics administered during the animal's lifetime, often referred to as "never/ever"), grass-fed, and local.
- Price premiums for niche meats (over conventional) depend on the cut, niche attribute, brand, and shifts in conventional pricing. Premiums of 10-30% were common, though certified organic meats were typically much higher.
- Across all three market sectors, fresh meats are preferred over frozen. Purchases of whole carcasses are usually limited to hogs and lambs; beef carcasses were typically

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considered too large to handle in-house. Restaurants, IFSP, and distributors are far more willing to work with seasonally available meats than are retailers.

- More than half (59%) of the restaurant/IFSP respondents said that high-end cuts were the most popular, while the rest use more burger and lower end cuts, e.g. for braised dishes. Nearly half of the retailers sell mostly middle meats. Most distributors found a market for everything and could grind any extra end meat.
- Respondents were asked to rate the importance of various attributes, on a scale ranging from 1 to 5, with 1 for "not important at all" and 5 for "very important." Taste had the highest average rating (4.9), followed by "no hormones/antibiotics" (4.0), "consistent cut size/shape" (4.0), "health benefits" (3.9) and "humanely raised" (3.7). Despite the fact that they are frequently mentioned, the least important attributes were grass-fed (2.7) and certified organic (2.6); grass-fed is not satisfactory to the typical U.S. consumer palate in terms of taste and texture, and organic is not different enough from other niche meats to justify its high price. "Local" (3.5), "family farmed" (3.5), and "personal connection with producer" (3.4) were all rated similarly.
- Although commonly used, there is no common understanding of the terms "naturally raised," "local," and "certified humane."
- Less than half of respondents are interested in three younger grass-fed beef products vitello, vitellone, and manzo which are stated in order of declining popularity. Restaurants were the most interested of the three sectors.
- Producers are the most common source for local meats. The most common challenge with purchasing local meats was volume having enough and having it regularly available. The next most common challenge was "quality," including taste, texture, size of cuts, fat content, and variability among individual cuts.
- The majority of respondents did identify their niche meat suppliers in some way; as one said, "product identity is important." Only half of restaurants put supplier names on their menus.
- Based on the average volumes of niche beef bought and sold by distributors in this study, we estimate that ten such distributors would account for more than 14 million pounds of niche beef per year a substantial portion of the capacity of a plant processing 17.5 million pounds of beef per year (25,000 beef cattle, 700 lbs yield each).
- A broad range of niche meat offerings, marketing the "never/ever," humanely raised and locally produced attributes, and with pork and lamb in the species mix, is desirable. There is also considerable demand among retailers for kosher and value-added niche meats (cured, smoked, deli, and ingredients for prepared foods).

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Introduction

In this report, we present the results of research on market demand for "niche" red meats – such as certified organic, grass-fed, naturally-raised, local, Kosher, and Halal – in the San Francisco/Sacramento region.¹ It is one part of a three-pronged feasibility study, now underway, for a mid-scale, USDA-inspected slaughter and processing facility to be built in a coastal Northern California county.² The purpose of the market study was to determine if there is sufficient market demand for niche meats among restaurants, retailers, and distributors to make such a facility feasible.

Background

Consumer demand for niche meats, such as grass-fed, certified organic, or Kosher, has grown rapidly during the past five years; it is driven primarily by consumers' concerns about sustainable production, food safety, traceability, humane animal production, and/or specific health benefits. Furthermore, religious preferences are increasing demand for Kosher and Halal meats.

The rapid rise in U.S. demand for niche meats has been documented in a range of studies. Organic meat, though only 8% of total organic food sales, is the fastest growing segment of the organic food business, expanding by 140% from 2004 to 2006 (Mintel Organic Foods, 2006, quoted in Knudson, 2007). In 2006, sales of natural and organic beef in grocery stores increased over the previous year by 28% in dollar value and 25% percent in pound value, compared to increases, respectively, of 0.4% and 1.7% for all beef (National Cattlemen's Beef Association, 2007). Grass-fed meats are also on the rise: estimates suggest that U.S. production of grass-fed beef reached 65,000 head in 2006, rose to 100,000 in 2007, and will rise to 250,000 – 400,000 by 2010 (Gwin, 2007). Grocery sales of brand-name beef with a "natural" claim on the label totaled \$69.8 million for the 52-week period ending March 25, 2006, a 51% increase from the previous year (Food Marketing Institute and ACNielsen, 2006).

Looking at buyer behavior, a study released in 2007 showed that more than one in five shoppers bought natural or organic meat, an increase over the previous year (Food Marketing Institute and American Meat Institute, 2007). The study also found that at least 40% of these shoppers are

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¹ This study was prepared by University of California--Cooperative Extension. It was funded by a grant from the U.S. Department of Commerce's Economic Development Administration to the Economic Development and Financing Corporation—Mendocino County.

² The other two elements of the feasibility study are facility design and a supply-side analysis.

motivated by the belief that these meats are fresher, have better nutritional value, taste, and longterm health benefits than conventional meats, and that the animals are healthier and better treated than conventional livestock.

Interest in locally grown foods is spreading nationwide, as indicated by the rise in the number of farmers markets, community supported agriculture programs, local meat buying clubs, local food policy councils, and other entities supporting local food systems (Halweil, 2002; Pirog and Larson, 2007; Roosevelt, 2006; Burros, 2007). The "locavore" or "100 mile diet" movement, inspired by books like Gary Nabhan's *Coming Home to Eat* (2002), Michael Pollan's *The Omnivore's Dilemma* (2006), and Barbara Kingsolver's *Animal, Vegetable, Miracle* (2007), encourages a diet of foods produced within 100 miles of home, and "locavore challenges" have been "popping up all over the country" (Burros, 2007). Locally grown food is increasingly considered an "eco-healthy choice" (Roosevelt, 2006), and a 2007 national study found that 69% of respondents believe local food is better for their personal health than food that has traveled across the country (Pirog and Larson, 2007). There is also evidence that consumers "place a high value on their perception that purchasing local foods supports local farms" and believe that local foods deliver freshness, taste, and quality (Pirog et al., 2003).

The Hartman Group (2008) conducted a nationwide survey in December, 2007, regarding consumers' interest in buying local. Half of the respondents defined "local" as "made or produced within 100 miles, and 37% chose "made or produced in my state." Over half reported that they most frequently buy locally produced products at grocery stores (62%), farmers markets (61%) and farm stands (44%), while 28% stated that they buy "direct from the producer." Locally produced fruits and vegetables were the category for which the greatest proportion of consumers wanted increased variety of offerings (73%), followed by locally produced fresh meats, poultry, and fish $(57\%)^3$.

More specific to the San Francisco Bay Area and Northern California, market research indicates that this geographic region has the highest potential demand in the nation for grass-fed, natural, and/or organic beef products (Spectra Marketing Systems, quoted in Lorenzo et al., 2007). This is consistent with the fact that California – the San Francisco Bay Area in particular – has long been a leader in culinary trends, from sourdough bread and coffee roasting (Saekel, 2005; Bauer, 2001) to organic agriculture (Guthman, 2003). The region was one of the main birthplaces of the alternative food movement (Belasco, 2007). The iconic Chez Panisse, founded by Alice Waters, inspired a "food revolution" with its focus on fresh, local ingredients (McNamee, 2007), and the region is today a hot spot for the "Slow Food" movement (Hopkins, 2003).

Even with the rapid growth indicated above, niche meats such as natural, grass-fed, and organic are still a small fraction of total beef sales. In the first quarter of 2007, dollar sales of natural and organic beef dollar sales comprised 2.1% of all fresh beef sales and 1.4% of all fresh beef volume in retail supermarkets (National Cattlemen's Beef Association, 2007).⁴ Price is part of

³ Meat, poultry and fish were not separated into different categories.

⁴ Interestingly, the beefretail.org study says that by 2007, 25% of ground beef in retail meat cases carried labels with "natural" claims, versus 4% for muscle cuts. However, at least some of this beef is likely "natural" per the USDA

the story: 63% of shoppers said they would buy more of these products if prices were closer to those for conventional meats (Food Marketing Institute and American Meat Institute, 2007).

Yet other factors have also hampered the growth of the niche meat sector, especially limited processing capacity. After World War II, the meat industry in the United States underwent intense consolidation, especially in the processing sector. Many small-scale livestock processing facilities closed, limiting the processing capacity necessary for livestock producers focused on niche production, typically small- and mid-sized operations, to access markets and provide the products many consumers are demanding.

In Northern California, many livestock producers are looking toward niche markets as more profitable outlets for meat products from their livestock. However, their efforts are constrained by the lack of USDA-inspected slaughter and processing facilities (Gwin et al., 2005; Kleber et al., 2007).⁵ Considerable interest has been expressed by ranchers, buyers (e.g. retailers, chefs, distributors), and end consumers, and others involved in the niche meat supply chain to construct new processing facilities in Northern California.

definition of no additives or preservatives to the meat, which says nothing about antibiotics or hormones used in livestock production.

⁵ In California, which lacks a state-level meat inspection program, meat cannot be sold unless it is slaughtered and processed at USDA-inspected facilities.

Methodology

We assessed market prospects for niche meats in Northern California by interviewing individuals responsible for meat purchasing in three key segments of the food distribution system: restaurants and institutional food service providers (IFSP) (N=17); retail grocers, primarily regional chains but also one-store operations and national chains (N=15); and distributors (N=10). In total, forty-two businesses were interviewed.

We did not interview consumers because it has been well documented that self-reported purchase intentions as gathered through consumer surveys do not match purchase behavior (for two good reviews of this literature, see Wright and MacRae, 2007 and Chandon et al., 2005). Other, potentially more accurate methods of forecasting consumer behavior from intentions are also limited in their predictive capability (Moritz and Fitzsimons, 2004); also, they were beyond the scope (time, expense) of this study. Additionally, research by the National Cattlemen's Beef Association has indicated that consumers are not very knowledgeable about beef cuts; there is considerable consumer confusion caused by the proliferation of multiple names used to describe a single cut (National Cattlemen's Beef Association, 1999). Grunert (1997) found that most consumers judge the quality of a cut of beef based on its color and the quantity of fat.

All of the businesses interviewed are located in the greater San Francisco Bay Area or the Sacramento metropolitan area (with the exception of the national retail chains and IFSP, all of which have sales units in these regions). Several of the distributors have hundreds of customers throughout northern and central California and even farther afield (e.g. San Diego north to southern Oregon and east to Nevada).

The Bay Area is known for its high profile chefs and cutting-edge restaurants, many of which have been in the forefront of using and promoting sustainable foods, including meats – Chez Panisse and Acme Chophouse, for example. We intentionally chose not to interview these leaders to avoid bias; many of these chefs had been contacted recently by local niche meat producers and provided with sample product and information. Instead, we focused on the "next tier," a broader range of operations with highly-trained chefs and innovative menus. The grocery firms interviewed can be described as "progressive"; they include many of the operations frequented by the region's "foodies" and include regional chains as well as specialty meat markets. Although none of the larger grocery firms that specialize in Asian consumers was willing to participate, we believe that we have input about this sector's demand through the interviews with the distributors. We chose not to interview any of the small ethnic meat markets, recognizing that relationships are needed to obtain credible input in this sector.

Of the 42 businesses interviewed, only nine were owned by parent corporations; the rest are independent. Regional retail chains range in size from two stores to more than 100, and several restaurant respondents are responsible for a group of restaurants, typically two to four locations (ten in one case), often with different names and identities. In nearly all multiple-unit cases, meat buying is done centrally or is at least coordinated.

Interviews were done either in person or by phone. Questions addressed the following topics:

• The company's current red meat purchasing practices, both conventional and niche;

- Niche meat sales volumes and estimates of future sales trends;
- The use of frozen meats, whole carcasses, seasonally available meats, and local meats;
- The importance of specific product and production attributes to the company and its customers; and,
- Perceptions about specific constraints to purchasing and using niche meats.

(See Appendix A for the complete interview guide.)

Data were analyzed for each of the three categories of respondents and also for the group as a whole. In some cases, respondents could not or would not answer specific questions (e.g. niche meat volumes marketed); in what follows, results are often reported as percentages, due to slight question-to-question variability in the numbers of respondents.

Results & Discussion

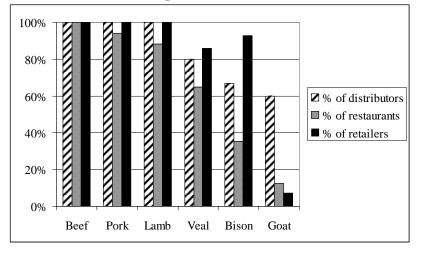
Red meats sold

Respondents were asked which red meats they offer their customers. Beef is sold by all, followed closely by pork (98%) and lamb (95%). Veal (76%) and bison (63%) are less often sold but still offered by a majority, while goat (23%) and emu/ostrich (28%) are far less common. Subgroups vary in their offerings: for example, restaurants are less likely than retailers and distributors to sell lamb, veal, bison, and emu, while only distributors are likely to sell goat.

	Beef	Veal	Bison	Pork	Lamb	Goat	Emu/Ostrich	Venison
% of distributors	100%	80%	67%	100%	100%	60%	44%	50%
% of restaurants	100%	65%	35%	94%	88%	13%	6%	38%
% of retailers	100%	86%	93%	100%	100%	7%	43%	36%
% of all								
respondents	100%	76%	63%	98%	95%	23%	28%	40%

TABLE 1: Red meat species marketed

FIGURE 1: Red meat species marketed

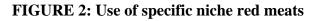


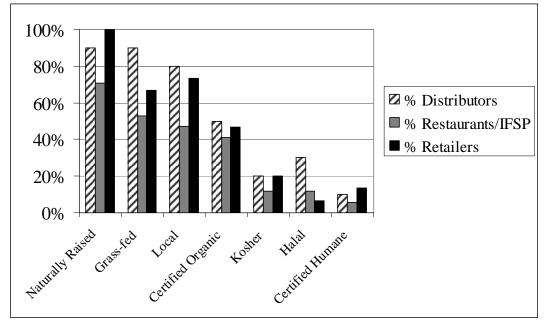
Niche meats sold

Respondents were asked about their use (purchases and sales) of red meats that have one or more of the following attributes: grass-fed, certified organic, naturally-raised (no hormones or antibiotics⁶), certified humane, Halal, Kosher, and local. Naturally-raised is the most common (86%), followed by grass-fed (67%) and local (64%). Certified organic meats are less commonly marketed (45%). Certified humane (10%) is the least common niche category, exceeded only by Kosher and Halal (17% and 14%, respectively).

	Grass- fed	Certified Organic	Naturally Raised	Certified Humane	Local	Kosher	Halal
% Distributors	90%	50%	90%	10%	80%	20%	30%
% Restaurants/IFSP	53%	41%	71%	6%	47%	12%	12%
% Retailers	67%	47%	100%	13%	73%	20%	7%
% All respondents	67%	45%	86%	10%	64%	17%	14%

 TABLE 2: Use of specific categories of niche meats





⁶ As discussed below, there is much confusion over what "natural," "naturally-raised," and other variations on this theme mean, and how they differ from each other. For this study, we defined "naturally-raised" as being from animals with no hormones or antibiotics administered over the animal's lifetime; these meats are often called "never/ever," i.e. these substances are "never/ever" administered, though this is a marketing term rather than a legal definition. The USDA has proposed a new "naturally raised" label, which will meet "never/ever" expectations; see FN 8.

Of the three respondent groups, distributors are most likely, and restaurants least likely, to carry grass-fed and local meats, while 100% of retailers said they carried naturally-raised meats. This was a somewhat surprising finding, as we expected restaurants to be ahead of retailers in working with niche meats. One explanation may be that retailers can carry even minimal amounts of naturally-raised meats, in order to satisfy a potentially small segment of their customer base, while restaurants do not put something on their menu unless they are committed to it.

However, variation in niche attribute definitions – and knowledge of how their own meats fit those definitions – was apparent, especially regarding naturally-raised, local, and certified humane. Respondents generally understood the other niche terms and could answer with certainty about whether their meats fit those categories.⁷

We defined "naturally-raised" as meat from animals with no added hormones and no antibiotics administered during their lifetime; this is often referred to as "never/ever," i.e. these substances are never, ever administered.⁸ Some respondents weren't sure if their meats qualified as never/ever or as the less stringent variation, that no hormones/antibiotics were administered within a given period (often 120 or 240 days) before slaughter (a practice referred to as "withdrawal"). They also did not know if antibiotics were allowed for therapeutic purposes (to treat sick animals) even if feed-grade antibiotics (given to healthy animals, to speed growth) were not used.

"Local" was also defined differently, geographically-speaking, by respondents (as discussed later in this report). In addition, some respondents considered a supplier to be "local" if the processing facility itself was local (e.g. Superior Lamb in Dixon, CA). When asked whether the animals themselves were raised locally, many respondents did not know; of these, most were not concerned. The supplier was local, therefore the meat was local.

Finally, "certified humane" caused some confusion, primarily because respondents lacked information about what it meant (and who certifies it) and whether their suppliers were certified. Several indicated that their suppliers used humane treatment, following "Temple Grandin guidelines," referring to Grandin's work to overhaul standard operating procedures at large, conventional meat processing facilities; however, this is not the same as "certified humane." This category may have been slightly under-reported; e.g. Meyer, a never/ever meats company, is certified by Humane Farm Animal Care, but no respondent handling Meyer meats identified it as such.

⁷ In November 2007, the Agricultural Marketing Service (AMS) of USDA finalized the legal definition of "grass-fed" when used on meat labels: 100% forage-fed (except in emergencies) and on pasture during the grass-growing season. This may actually add to confusion, since it says nothing about the use of hormones or antibiotics, which most grass-fed producers do not currently use, at least for growth promotion.

⁸ In November 2007, AMS issued for public comment a proposed definition for a "naturally raised" voluntary marketing claim for meats; it prohibits any use of antibiotics or hormones and requires a vegetarian diet. This effort is meant to clear up consumer confusion caused by the current USDA definition of "natural," which says nothing about how livestock are raised and only indicates that the *meat* has no additives or preservatives, which is true of most conventional meat sold fresh.

Approximate volumes of niche meats sold

We asked respondents how much of these niche meats, by volume, they sold. Their answers were typically rough estimates, often given with wide ranges and as combined totals (e.g. X lbs of naturally-raised, organic, and grass-fed, of all red meat species, together); some respondents were unwilling or unable to share sales data. The following table gives volumes for the three different species and three different attributes for which we had the most complete data.⁹ The wide range of volumes given for each of the three groups of respondents reflects not only variation in use but variation in business sizes; e.g. a retail chain will use far more meat than a single-store grocer.

	Pounds of Niche Meats Sold per Week							
	Beef	Pork	Lamb	Grass-fed	Organic	Naturally Raised		
Distributor average	26,718	3225	1916	4804	4482	33,797		
	525-	1400-	230-	720-				
Distributor range	89,500	4900	7500	10,000	38-7500	800-86,600		
Restaurant average	257	303	105	234	1114**	234		
Restaurant range	35-650	100-640	30-200	50-490	nd	55-200		
IFSP average*	6000	5000	nd	1750	nd	9250		
Retail average	14,765	5613	835	808	1070	16,164		
	145-							
Retail range	107,400	65-25,000	35-2500	60-3500	40-2100	90-105,000		

TABLE 3: Pounds of niche meats sold per week

* No range is given for IFSP, as only one IFSP respondent provided volume data. ** data from only one restaurant respondent with two locations

Some respondents measured niche meat volumes in sales dollars or percentages of their total meat purchases. For example, while two IFSP respondents said that niche meats are less than 1% of their total meat sales, one distributor said that niche red meats are 60-70% of total meat sales, and three retail estimates ranged from \$1-2.5 million.

Increases in niche meat use

When asked whether the volume of niche meats they use would increase over the next year and/or over the next three years, 76% of all respondents said yes, for both time periods. Distributors were the most optimistic of the three groups, with 90% saying yes to both time periods. Restaurants/IFSP were also enthusiastic, with 75% predicting an increase in the next year, and 69% in the next three years. Retailers were less optimistic in the short-term though more so for the longer-term, at 64% and 73%, respectively.

⁹ Volumes for meats both organic AND grass-fed are registered in both columns, such that the sums of individual niche categories exceed actual total usage. Head of livestock are converted to pounds of meat based on the following conversion factors: 700 lbs/head for a steer; 50 lbs/head for a lamb; 140 lbs/head for a hog.

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	Increase in 1	Increase in 3
	year	years
Distributors	90%	90%
Restaurants/IFSP	75%	69%
Retailers	64%	73%
All respondents	76%	76%

TABLE 4: Belief that niche meat volumes will increase in 1, 3 years

When asked to estimate by what volumes their use of niche meats would increase, very few respondents would venture to guess specific numbers, but they had opinions about which niches would grow more than others.

Of the restaurant/IFSP group, volume increase estimates ranged from 7-10% for "all niches" to 50% growth for naturally-raised pork in three years, to 100% growth for grass-fed beef in the next six months. Of those who predicted which niches would increase most, 50% said naturally-raised, grain-fed beef would outstrip organic or grass-fed; in the U.S., respondents said, meat eaters were unlikely to shift away from preferring a grain-fed taste. Two specifically rated "local" as the highest growth category for the Bay Area. As one executive chef explained, her customers "want the healthy, right thing to eat." Yet at the same time, "they won't sacrifice taste for conscience."

The three distributors who ventured specific percentage increases predicted slightly larger growth, of 20% per year for naturally-raised, grain-fed beef and "all niches." Opinion about which niche categories would climb the most leaned toward naturally-raised, grain-fed meats (beef and pork), and local meats. Grass-fed and organic were predicted to rise less, both because of popular tastes (the former) and cost (the latter). "Organic is too expensive, and most people don't think it's better than never/ever," said one respondent. "People will pay \$25 for [never/ever] Kobe beef, because they see the marbling, the quality. They won't pay \$29/lb for organic beef that has less or no marbling."

Interestingly, one distributor explained that his company expected "exponential growth" in niche meats – local in particular – as it actively shifted to a more "white tablecloth restaurant" client base. "Sysco can't do local, so that's a point of differentiation."

Retailers ranged widely in their predictions. The nine respondents who expect annual increases (5-30%) in niche meat sales were mixed regarding which niches would grow the most. Four said organics, four said grass-fed, three said naturally-raised grain-fed, and three said local meats. Grass-fed was identified as both a booming growth area ("local grass-fed beef quickly overtook non-local organic beef") and a static category ("mainstream tastes aren't going to change"). One respondent said that with the increased availability of natural meats, organics would be a point of differentiation for retailers.

The remaining six respondents were pessimistic about increased niche meat sales. For one, this was because, after 10 years of selling niche meats, local demand was saturated. Two others said growth would depend on how the federal government ultimately defined "naturally-raised" and

"grass-fed": stricter definitions would restrict supplies and keep prices high. Three noted that overall red meat sales were down, due to price hikes and broader economic uncertainty. Though customers might want to buy niche meats, they may not be willing to pay: "It depends on education... everyone's health conscious, to a certain price point."

Niche meats wanted if supply were available

Respondents were asked what niche meats they would like to offer their customers if they could find a supplier, i.e. products they don't currently carry. Answers were quite mixed.

In the restaurant/IFSP group, the most desired quality (five respondents) was local in several varieties: naturally-raised, value-added (e.g. cured, smoked, and deli meats), beef and pork. The second most desired quality was naturally-raised. In addition, four respondents specifically asked for niche meats at lower prices than they currently paid.

Distributors were mixed: three said more organic (beef and pork) at a more affordable price, two said naturally-raised grain-fed, two said grass-fed, and one said local, all species. Two said niche value-added meats (e.g. organic beef dogs, organic burrito beef, and local deli meats) were in high demand but difficult to find.

Kosher was mentioned most often by retailers (N=4). In addition, three retailers wanted more affordable organic meats; one wanted humanely-raised, local pork and lamb. Seven respondents already had what their customers wanted; one of these explained that adding any other offerings to his meat case would simply confuse his customers.

Price premiums paid for niche meat

Respondents reported paying a wide range of premiums (over conventional), depending on cut, niche attribute, brand, and shifts in conventional pricing. Premiums of 10-30% were common, though certified organic meats were typically much higher.

Retailers reported premiums from 0-10% for imported grass-fed beef to 200-300% for domestic, certified organic middle meats; most said 10-30% was typical. Restaurant/IFSP respondents pay from 7-10% to 50-60%, centering around 15-30%. Distributors also commonly paid 10-30% more, though this was for naturally-raised, non-local meats; premiums rose 40-60% for local, naturally-raised meats and to 60-70% for domestic organic meats. Such high premiums were what led at least three respondents to buy imported grass-fed and organic-grass-fed beef, for which they paid little or no premium.

How retailers sell meats

Most retailers sold meats in more than one format: 87% sell fresh meats at a full-service counter; 60% sell fresh meat, self-service (i.e. pre-packaged); 73% sell frozen meat.

Use of frozen meats

Across all three sectors, the majority of respondents preferred fresh meats and avoided frozen, except for value-added products or meats that sell sporadically.

More than half of restaurant/IFSP respondents (56%) did not buy or use frozen meats, citing quality concerns (taste, texture, purge of liquids during defrosting). However, two of these said they would be willing to use frozen meats for braising and sauces. Three respondents that did use frozen meats said they preferred fresh, while two that did not use frozen meats were willing to try.

Retailers also preferred to avoid frozen meats. Though 67% did sell such meats, these were primarily burger patties, which freeze well, and also meats (e.g. venison and bison) that do not sell quickly. In general, they said, retail customers demand fresh meat and believe that freezing red meats compromises quality.

Half of the distributor respondents did handle frozen meats, though for two, this was mostly value-added products (e.g. burger patties, breaded veal cutlets). The rest carried only fresh meats, citing customer preferences or a lack of demand.

Use of whole carcasses

Respondents who bought (or were willing to buy) whole carcasses primarily limited this to pigs and lambs; beef carcasses were typically considered too large to handle in-house.

A majority (56%) of restaurants/IFSP did not buy whole carcasses, because they lacked the facilities, skills, and/or time, and/or saw no price advantage. Only 44% bought or were willing to buy whole carcasses, though all but one limited this to lambs and pigs. This outlier, with two restaurants and a third in the works, planned to buy whole animals and split them among the three locations; this was, he said, a way to support local farmers: "if they can't sell the whole carcass, they'll have to sell portions of that really good meat into the commodity market... a big waste."

Retailers (53%) were more willing and able to work with whole carcasses, saying this allowed them to get a better price from their suppliers and to provide their customers the highest quality meat possible ("if you know what you're doing," said one). The rest lacked facilities and/or skilled staff; most of these also said that there were no cost savings in taking whole carcasses. "You'll sell more of one part of the carcass than of the other, and you'll have to raise prices on the former to compensate for the latter." Another, with 47 years experience in meat retailing, said that "being able to buy only the cuts you sell is such a benefit."

While half of the distributors purchase whole carcasses, two of these said this was rare. The rest did not have facilities or skilled workers. Said one, "I have 65 meat cutters but no butchers except me," and meat cutters "don't know how to make the whole animal go away."

Use of seasonal meats

While restaurant/IFSP and distributors were willing to use meats that are only available seasonally, retailers were far more resistant.

More than half (59%) of restaurant/IFSP respondents used or were willing to use such meats. Of the unwilling remainder, several said it was too hard to track what meats were available when. In

some cases, they could not easily change menus. Most distributors (70%) were also willing and able. However, one noted, a part-time presence with a customer can be risky: "if you're off the shelf for six months, you don't know what will happen with that account."

In contrast, 80% of retailers were unwilling to carry seasonal meats, and most pointed to customer expectations. Said one, "when we bring a product in, it has to be here every day of the year. Customers demand it." Another explained, "you either sell it or you don't. Customers don't understand seasonality for meats ... except maybe wild salmon."

Most/least popular cuts

The popularity of specific cuts of meat with the respondents' customers depended on a variety of factors, including customer demographic and the season, i.e. braising cuts like pot roast sell better in the winter, while porterhouses are popular in late spring.

More than half (59%) of the restaurant/IFSP respondents said that high-end cuts, such as filet, ribeye, tenderloins, and tri-tip, were the most popular, while the rest used more burger and lower end cuts, e.g. for braised dishes.

Nearly half of the retailers sold mostly middle meats. As one explained, "90% of the people want 10% of the animal: steaks." Three retailers sold the whole range, middles and ends, and two said ground meat was most popular, because of its relatively low cost and multiple uses.

All distributors sold a wide range of cuts, depending on their specific markets. Only a third identified a "popular" cut: they sold more ground meat overall, as a good way to sell ends otherwise difficult to move. Another third said they have to sell it all, because they handle whole carcasses.

The least popular cuts, unsurprisingly, were more typically but not wholly end meats and less familiar cuts (e.g. flatiron and baseball steaks). Among the restaurant/IFSP respondents who identified any unpopular meats, most said end and organ meats ("the good stuff") moved less quickly.

A third of the retailers sell fewer end meats, such as pot roasts and shoulders: "people don't know how or don't have time to cook them." For 27%, sales of middles versus ends were quite balanced – sometimes by necessity, because these retailers buy whole carcasses. In an interesting side note, one retailer said that his customers were far less willing to pay a premium for less desirable cuts of the more expensive niche meats.

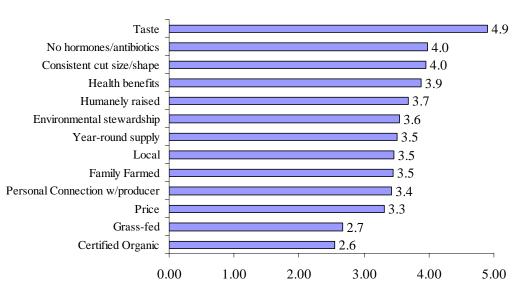
More than two-thirds (70%) of distributors found a market for everything and could grind any extra end meat. As one explained, "nothing is 'less popular.' You have to know how to market the various parts, by finding appropriate markets. Like skirt steaks to the high end Hispanic trade."

Attribute ratings

Respondents were asked to rate the importance of various attributes, regarding both the meat products themselves and production practices. The rating scale ranged from 1 to 5, with 1 for "not important at all" and 5 for "very important." All three respondent groups rated these attributes similarly.¹⁰

Not surprisingly, "taste" had the highest average rating. "Price" was the least important product attribute and the third least important attribute overall. This is not unexpected, because the other attributes distinguish the niche products from price-driven commodity meats. Price, said one restaurateur, "is the bottom line, but customers are willing." The highest-ranked production practice was no hormones/no antibiotics. Although "health benefits" rated fourth highest, the healthfulness of grass-fed meats was not compelling enough to make "grass-fed" a highly important attribute; respondents commented that grass-fed is not satisfactory to the typical U.S. palate in terms of taste and texture. The average ratings for "local," "family farmed," and "personal connection with the producer" were similar, but not as high as "no hormones/ antibiotics," which provides more direct benefits to consumers. Both "humane treatment" and "local" had higher rating averages than either grass-fed or organic. Organic, which had the lowest average rating overall, was said to be not different enough from naturally-raised meats to justify the extra cost. Survey respondents consistently ranked "no hormones/antibiotics," "local," more important than "grass-fed" (pairwise t-test; p=<0.0001).

FIGURE 3: Average Attribute ratings (1-5), all respondents



Attribute Ratings

 $^{^{10}}$ Per ANOVA. The one possible exception is taste: retailers said taste is less important than did the other two groups. But the difference is not statistically significant (p=0.07).

Several respondents predicted that certain attributes, such as environmental stewardship and family farming, though not so important to their customers now, would increase in importance in the future. One IFSP respondent said, regarding the production attributes, "If I were king, these would all be a 5"; the company, he explained, was moving that way, albeit slowly.

Interest in new grass-fed beef products: vitello, vitellone, and manzo

Seasonality in grass-based cattle production in Northern California has prompted some producers to develop new grass-fed beef products in order to extend the harvest period for livestock. We asked respondents if they had heard of and/or were interested in trying three products – none of which have been fed grain or formula, and all of which have free access to pasture:

- "vitello," veal harvested at 3-4 months of age, which has pinkish-white meat;.
- "vitellone," harvested after weaning, at 6-8 months; the meat is more red than vitello and should be dry-aged;
- "manzo" is harvested at 11-13 months; the meat is dark-red and should also be dry-aged.

	Heard of (%)			Interested (%)			
	Vitello	Vitellone	Manzo	Vitello	Vitellone	Manzo	
Distributors	70	50	20	40	50	20	
Restaurants/IFSP	87	47	33	60	53	33	
Retailers	64	64	36	43	14	14	
All respondents	74	54	31	49	38	23	

 TABLE 5: Knowledge of, interest in three grass-fed beef products

Just under half of all respondents were interested in vitello, more than a third in vitellone, and fewer than a quarter in manzo. One of the concerns raised about vitello and vitellone was that veal is hard to sell, because of "too much bad publicity." A distributor with experience in upscale, natural foods retail said that even when customers claim they want veal raised humanely on pasture, they then don't like the taste … "they don't accept the uniqueness of that product." But some respondents were interested if these products were humanely raised on pasture, or family farmed. "The story matters." A few respondents said they already carry a version of vitello and/or vitellone and were therefore not interested in a new line.

The lack of interest in manzo was, in part, due to concerns about the lack of marbling – "sounds like select beef," said one respondent – and also due to the facilities/cost involved in the recommended dry-aging periods.

Several retailers and distributors said that all three products are more appropriate for chefs, "who can communicate more directly with customers, talk about the preparation, and then can charge for it. You can't do that in retail." In addition, they explained, it can be difficult to educate retail customers on all these points of difference. One retailer said that after a year of education about "never/ever" versus conventional meats, 40% of his customers still did not understand the differences.

How to define "local" for meats

Respondents were asked how they defined "local" for meats, geographically. Answers ranged from "our county" and adjoining counties to "California and Nevada," reflecting a significant lack of consensus. Most definitions tended to be narrower than the whole state of California, such as within a radius of 50, 100, or 200 miles.

How long respondents have carried local meats

Again, answers ranged widely and were complicated by the varying definitions of "local." The eight restaurant/IFSP respondents who buy local meats have done so for as long as 25 years to as recently as within the last year. The twelve retailers buying locally range from 45 years to six months, and the eight distributors buying local meats range from one year to 30 years.

Where they buy local meats

The most common source for local meats was direct from the producer. Of the eight restaurant/IFSP respondents who use local meats, all sourced directly from producers, while five also bought from distributors and one from farmers markets. Of the twelve retailers buying locally, ten bought from producers and two from distributors. All eight distributors who handle local meats bought directly from producers.

Challenges in purchasing local meats

When the many, wide-ranging responses regarding challenges in purchasing local meats were grouped, five basic themes emerged; the frequency of these responses is displayed in the table below.

	Restaurant/IFSP (%)	Retail (%)	Distributor (%)	All (%)
Sufficient volume	33	64	67	53
Consistent volume	27	36	11	26
Quality	53	21	11	32
Cost	33	14	22	24
Processing	13	29	22	21

TABLE 6: Challenges in purchasing local meats

Volume – having enough and having it regularly available – was by far the most cited concern. Respondents said they were unable to source an adequate volume of local meats on a regular basis.

However, some had adjusted. One restaurateur has learned to be flexible with variable supplies: her distributor can only get 20 rabbits each week, "so we take the 20 and use them, and when the rabbit's gone, it's gone." Similarly, a retailer explained that "It's not a bad thing to run out of a product – that means it's in hot demand," and customers will learn when to come in to get it. "I'm not afraid to run out of anything." A distributor said it can be difficult to get enough local product to satisfy his larger accounts; but by working with a number of small, local suppliers, he can usually assemble enough volume.

Under the heading of "quality" – the next most frequent area of concern – respondents noted an array of factors they often found unsatisfactory with niche meats, including taste, texture, size of cuts, fat content, and variability among individual cuts. One retailer said that small, local farms lacked the technology (e.g. tenderness testing or computerized ration management) to raise meats consistent in taste, texture, and size of cuts; for example, he wanted all the lamb carcasses he buys to be the same size, so that all the chops are the same size. "Everything's on computer, so you get a consistent product. Locals can't do that."

Cost, while not the most cited challenge, was still a deterrent. Said one distributor, "It's not that domestic grass-fed is undesirable or low quality. The price is just astronomical." Cost was mentioned the most by restaurant/IFSP. However, some restaurants explained that if certain meats were too costly, they could alter menus to serve them differently, perhaps in smaller portions and/or not as often.

Less cited than the other concerns but still a factor, "processing" was also seen as a challenge for respondents: processing facilities were unavailable, too far away, unreliable, or did not provide desired services, which meant producers were unable to meet the needs of their customers.

Related to processing, one large-scale IFSP respondent said that insurance was the critical challenge: all of its suppliers are required to have liability insurance, to protect all parties in case of food safety problems. However, he explained, many small producers are unable to afford this insurance, so this IFSP often works with regional suppliers, which can provide umbrella liability coverage for multiple producers.

Customer requests for niche meats

The majority of respondents in all three groups reported that their customers did not ask (or asked very rarely) for specific niche meats. In some cases, this was because the respondents already offered a satisfactory array of niche meats. As one restaurateur explained, "Having [a few] niche meats on the menu satisfies the small percentage of people who care, who ask about those issues." In other cases, customers didn't ask, according to respondents, because they were not interested in other options.

Of the five restaurant/IFSP respondents that did receive requests, the majority were for meats with no hormones or antibiotics. "In a meat shop, you have to train your customers to buy what you put out there... if they want something special, we can order it." Only three retailers received requests more than rarely, primarily for organic and grass-fed meats, but also for Halal. One retailer said that grass-fed was "the biggest consumer-driven push in the last 10 years."

Only four of the ten distributors reported requests for a range of products: three varieties of niche pork: never/ever, organic, and heirloom; grass-fed beef; and game (e.g. venison). However, customer demand was acknowledged as a driver of product offerings: "I hear it all. If there's enough demand for something, I'll see what I can do." However, he continued, "We can't be all things to all people."

Niche customer profile (retailers only)

When asked if their customers who bought niche meats had similar characteristics, retailers described them as highly educated, professional, and affluent; health conscious and concerned about the environment and what they feed their children; and focused on their families and involved in their communities. They are educated about and attentive to food-related issues, such as the use of antibiotics and hormones in meat production, humane treatment, and family farming. These customers were also said to have and spend more time (than other customers) on shopping and cooking. One retailer said that, in particular, grass-fed meat customers tended to be younger than other customers, because younger shoppers perceive grass-fed as more valuable and of higher quality than grain-fed.¹¹

Number of meat suppliers

In general, restaurants/IFSP used the fewest meat suppliers, and distributors used the most. Restaurant/IFSP respondents used an average of three, ranging from one to seven, and up to twelve for IFSP. Retailers use an average of twelve suppliers and ranged from three to forty-two. Distributors ranged even more widely, from one to 170.

How respondents identify suppliers to their customers

	Labels	Point of Sale Info	Meet Producer Days	Don't ID	On Menu
Distributors	10	4	4	0	NA
Restaurants/IFSP	0	1	4	5	8
Retailers	13	8	6	2	NA
All respondents	23	13	14	7	8
% of all respondents	58%	33%	35%	18%	47%

TABLE 7: Methods of identifying suppliers to customers

The most common method of identifying suppliers was the product label/invoice, or the menu for restaurants/IFSP. Only half of restaurants put supplier names on their menus; for some, this depended on how well-known the supplier was (Niman would be listed). If not, restaurant staff could often give this information if asked by a customer.

Even though most respondents did not have "meet the producer days" for customers, several retailers and distributors did ask suppliers to meet and train their staff. The majority of respondents did identify suppliers in some way; as one said, "product identity is important."

¹¹ One retailer offered an interesting perspective on niche buyers, which he estimated as about six percent of his customer base. While they do spend a lot of money, not only on meats but on "attributing items" like wine and cheese that go with those meats, they rarely buy large volumes of any item. They also shop more often and require more service per visit, which in the long run means they are more costly to serve than non-niche customers.

Orders and deliveries

Half the restaurant/IFSP respondents made orders and received deliveries of meats every day of the week; the others typically took deliveries at least twice a week. Retailers ranged from once a week to every day, depending on store volume; at least three times a week for half of them. Distributors ordered and received much more often: as needed, every day, "all day," and typically no less than five times a week.

Biggest challenges in purchasing niche meats

Respondents were asked what their biggest challenges were in purchasing niche meats. Responses to this question significantly overlapped with challenges in purchasing local meats, discussed above. Again, the table indicates the number of times each theme was mentioned by respondents.

	Restaurant/IFSP	Retail	Distributor	All
	(%)	(%)	(%)	(%)
Volume (sufficient, consistent)	33	53	90	55
Quality	13	40	30	28
Cost	33	27	0	23
Customer education	27	13	20	20
Supply chain	13	17	10	18

TABLE 8: Challenges in purchasing niche meats

As with local meats, accessing niche meats in adequate volumes (and, for many, consistently over time) was the challenge most often cited by respondents. As one chef said, "We really want this stuff – we need the volume." Distributors were the group most likely to have this problem (90%). One distributor explained that being able to offer a sufficient supply is as important to its customers as price and the niche attribute itself.

Yet there were exceptions to this opinion: one IFSP considered limited supply to be almost a given with niche products: "you get what you can get, when you can get it. Is it okay to have it on the menu and then run out? Sure. You have to educate the consumer and the [unit] operator on how best to manage it."

Cost was only slightly more important than quality (again, encompassing a range of factors, from taste and texture to consistency in individual cut size and shape). A retailer said, "People will pay extra for something they value" and may even accept slightly reduced quality in exchange for other perceived values. "These niches will sell if the product quality is consistent and the supply is consistent and large enough."

Supply chain challenges included several difficulties, including lack of access to appropriate facilities and distribution systems for small producers and the complexity, for buyers, of managing multiple suppliers. Regarding distribution, one chef knew of producers raising high quality meat, "in all the right ways," who then can only "throw it in the freezer" after processing, because they don't have a distribution system to get the meat to local restaurants. Regarding supplier management, the manager of a restaurant group said that each chef had to spend a great

deal of time finding and working with multiple sources: "The chefs do it, and they like it, but it's a big pain."

Respondents discussed two customer education challenges: why niche meats cost more and what all those labels really mean. Customers, respondents said, are confused by the range of definitions, e.g. all the varieties of "natural." One retailer said, "people still don't know what 'marbling' means, what it contributes." For customers to be willing to pay the higher price for niche meats, they need to understand the health and taste benefits. The need for education wasn't limited to customers: respondents said they had to educate their own personnel (especially chefs and kitchen staff) how to handle niche meats.

Another challenge mentioned specifically by retailers (4) was a lack of steady demand. One retailer, typical of those who mentioned this problem, explained that when he considers new suppliers, he looks at their marketing strategy. "Are they using billboards...radio? Are they positioning themselves? Are they creating customer demand? ... If you take up space in my case, it had better sell!" Niche suppliers, he said, typically did not understand that retail is "all about turns: you gotta get it in and out. If I have to do anything to get rid of that product, it's not worth it to me to carry it."

Finally, it is worth noting that two respondents who said they had no challenges in sourcing niche meats attributed this to the solid, long-term relationships they have built and maintained with their suppliers, both producers and distributors.

Conclusions

This market study offers an assessment of demand – and various aspects of that demand – for niche red meats in the greater San Francisco Bay Area and Sacramento metropolitan area. Primary findings are as follows.

The most popular red meats are beef, pork, and lamb, in that order. The most popular niche categories, also in declining order of popularity, are naturally-raised, humanely raised, local and grass-fed; however, there are varying interpretations, among respondents and their customers, over definitions of some niche attributes, including naturally-raised and local (most broadly California but often more narrowly defined). Retail niche meat customers are highly educated, professional, affluent, health-conscious, and care about the environment, their families, and their communities.

The volume of niche meat demand in this geographic area looks promising in terms of supporting a mid-sized processing plant, especially if demand continues to increase, as is predicted by three-quarters of all respondents. Difficulty in obtaining accurate volume data, the varying definitions of specific niche categories, and the fact that many of the retail/restaurant/ IFSP respondents are customers of the distributors interviewed in this study, make it challenging to extrapolate the capacity for a slaughter and processing facility that would best fit near-term demand in this geographic region. However, some tentative estimates can be made.

For example, based on the average volumes of niche beef bought and sold by distributors in this study, ten such distributors would account for more than 14 million pounds of niche beef per year – a substantial portion of the capacity of a plant processing 17.5 million pounds of beef per year (25,000 beef cattle, 700 lbs yield each). A larger plant (e.g. 75,000 head/year) might need to look beyond this region to move all of that meat.

Fresh meats are preferred to frozen. About half of respondents can and do purchase whole carcasses, though primarily smaller stock (pigs and lambs) rather than cattle. Restaurants, IFSP, and distributors are far more willing to work with seasonally available meats than are retailers.

Price premiums (over conventional meats) depend on the specific niche, brand, meat cut, and sometimes time of year; that said, 10-30% premiums were common, and many respondents had to pay far more, especially for organic meats.

The biggest challenge in buying and using niche meats – and local meats more specifically – is obtaining them in adequate and regular volumes. Regional and national chains, in particular, may balk at any product they cannot carry in all of their stores. The ability for a regional plant to satisfy those volumes will, of course, depend heavily on the availability of livestock that meet the desired niche categories. Respondents also discussed challenges regarding meat quality, cost, the need for customer education about niche products, and the supply chain/processing.

One final important finding that emerged during our interviews – and not from a specific question – is the existence of an enthusiastic and already well-functioning link in the niche meat supply chain: distributors. Several of the distributors interviewed were very interested in having a new USDA-inspected slaughter and processing plant in this region; they saw the need from both the customer and livestock producer perspectives. Their interest in niche meats appears to be growing for at least two reasons (apart from an overall rise in demand). First, independent distributors see niche products as a way to differentiate themselves from the more consolidated, corporate distribution companies. Second, as fuel prices rise, retail and restaurant buyers may wish to do more of their purchasing with a single distributor, which means that distributors are looking for a wider range of products, including niche meats.

Clearly, some consumers and restaurants prefer to purchase their niche meats directly from producers. However, distributors have the capacity to handle larger volumes. They are logical alliance partners for a regional niche meats processing facility, in that they already have resources in place – from well-established customer bases and extensive (often decades-deep) market knowledge to fleets of trucks and dry-aging facilities – that would not need to be built from scratch.