Demand Analysis Methodology

Summary

The project team sought to estimate demand for grass-fed beef and dairy products in the Illinois market. We contacted eight experts in the grass-fed industry spanning private market research companies, university researchers, and US Department of Agriculture (USDA) economists. We also conducted desktop research for demand data such as point of sale (POS) data and consumer expenditure surveys but also included willingness to pay and, menu trends, and USDA's producer and pricing data to elucidate the breadth of publicly available information. Information on demand and other end-market assessments are generally more available for consumer goods, and not producer goods, therefore this analysis focuses on consumer goods.

Key findings

- Existing POS, consumer expenditure and other survey data is primarily available for the national, Midwest, or Chicago markets, with limited information at the state level.
- National trends indicate grass-fed products are in the adoption phase, with grass-fed beef representing just 4% of the total beef industry in the U.S.
- Midwest trends suggest purchasing of and interest in grass-fed products to be low, with 25% of consumers finding availability of grass-fed products to be an important retail service and 22% of consumers intending to purchase grass-fed beef.
- Provided state trends are consistent with regional and national trends, the size of the Illinois market is estimated to be up to $43M and $6.6M for grass-fed beef and dairy, respectively.

Introduction

While this report focuses on Illinois market trends, national estimates provide context and guidance. In 2016, the U.S. grass-fed beef market represented just 4% of total U.S. retail and foodservice beef sales (Cheung and McMahon 2017). Cheung and McMahon estimate 75% of grass-fed products are sold unlabeled as conventional beef, therefore, the majority of the market cannot be captured through end market analysis. For the purposes of this study, we will primarily focus on the labeled market. Cheung and McMahon estimated the sales breakdown for the U.S. grass-fed beef by market channel to be: 46% through foodservice operators, 42% through retail and 12% through direct marketing by sales volume.

Data Availability

Point of Sale data provides the best estimate of demand, however, based on our review, robust information on demand for emerging markets such as grass-fed beef and dairy products at the state level is only provided by private market research companies and is not accessible. Consumer purchasing data at the restaurant level is not tracked, however, syndicated data providers like Technomic can provide estimates of restaurant purchasing volume (which is one step before consumer sales) at the Illinois and Chicago scale. Technomic has no public sources of information on the U.S. grass-fed market. SPINS, a syndicated data provider specializing in natural foods markets, tracks retail sales of grass-fed products and can provide POS data aggregated for the Illinois and Chicago markets. SPINS estimates, at the national level, grass-fed beef and dairy products grew 16% in the last 2 years to reach $1.1B in sales. Grass fed makes up 15% of meat sales in the natural food retail market channel and 1% of meat sales in the conventional retail market channel (Benenson 2019). The size of the Illinois grass-fed beef and milk markets based on SPINS data, is estimated to be $6.3M and $4.3M respectively. Point of sale data from direct marketing channels, such as farmers markets, consumer supported agriculture sales or online stores are not available in aggregate and would entail a separate research effort to estimate.

Based on review of public sources of information, including USDA, Bureau of Labor Statistics, and a review of academic research on grass-fed products, there is limited information on consumer demand for grass-fed products at the state level. USDA National Agricultural Statistics Service (NASS) provides information useful for estimating the production of beef at the state level, including volume and sales for cattle, but not end market consumption. Similarly, USDA Agricultural Marketing Service (AMS) provides data on grass-fed beef prices (retail and wholesale) nationally by cut as well as regionally for four specific prime cuts of beef.

USDA Economic Research Service (ERS) also reports on numerous national indicators for domestic livestock, dairy, and poultry production monthly, although ERS doesn't track grass-fed beef or dairy products specifically. ERS does provide statistics on the disappearance of products (USDA calculates per capita meat disappearance as a measure of total supply per capita), which can be used to estimate per capita consumption of beef overall. Consumer surveys and academic research are limited to national estimates and regional differences, but still provide some information on consumer purchasing frequency, habits, and demographics for grass-fed products.

Grass-Fed Demand Estimates and Market Outlook

In the absence of available point of sale data at the state level, the project team conducted an analysis to estimate the demand for grass-fed products in Illinois based on average per household expenditures. The Bureau of Labor Statistics provides some regional statistics on meat and dairy, but not state summaries, in their consumer expenditure reports. BLS estimates consumer units (i.e. households) in the Midwest on average spent $227 on beef and $137 on fresh milk and cream in 2017. We estimate Illinois consumers spent \$11M-\$43M on labeled grass-fed beef products and \$6.2M-6.6M on grass-fed milk in 2017. Our estimates are based on the BLS Consumer Expenditure Survey (2017) on annual beef expenditures and USDA ERS beef disappearance data. We assume that the Illinois market follows national trends estimated by Cheung and McMahon, where 1% of the beef market is for labeled grass-fed beef products. For further documentation on methods please see Appendix 1.

Additional research on consumer preferences suggests that purchasing frequency of grass-fed beef in the Midwest is low. A thesis focusing on regional differences in the perceptions and consumption of grass-fed beef indicated 22% of Midwestern respondents intended to purchase grass-fed beef and 33% had consumed grass-fed beef in the past month (Crandall 2018). A survey of Illinois, Kentucky, Tennessee, and Ohio, indicated twenty-five percent of Midwestern consumers surveyed found the availability of grass-fed/ free-range meat to be an important service at grocery stores. Mean purchasing frequency tended toward either tried once or tried 2-3 times (Shang-Ho and Woods 2016). Reporting from Datassential shows that 82% of Midwest respondents (n=500) know what grass-fed means, 60% have tried grass-fed products, and 10% have had grass-fed products many times (Datassential 2019).

At the national level, consumers who are married or in a domestic partnership, live in a household with one or two individuals, do not have children or have an income between \$50,000-\$75,000 were more likely to purchase grass-fed beef than other respondents (Crandall 2018). At the Midwest scale, millennials ranked grass-fed meat availability at the grocery store's importance slightly higher than those born before 1980 (Shang-Ho and Woods 2016). Most Midwestern respondents had consumed grass-fed beef in their homes versus at a restaurant (Crandall 2018).

References

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