September 2017

Staff Paper Series

A Survey of Specialty Food Manufacturers to Assess Whether They Represent an Attractive Outlet for Small and Medium-size Farmers

by

Robert P. King, Larry Lev, Laurie Houston, Gail Feenstra, Shermain Hardesty, and Jan Joannides



College of Food, Agricultural and Natural Resource Sciences

UNIVERSITY OF MINNESOTA

A Survey of Specialty Food Manufacturers to Assess Whether They Represent an Attractive Outlet for Small and Medium-size Farmers

Robert P. King, Larry Lev, Laurie Houston, Gail Feenstra, Shermain Hardesty, and Jan Joannides

Robert P. King, University of Minnesota; Larry Lev and Laurie Houston, Oregon State University; Gail Feenstra and Shermain Hardesty, University of California-Davis; and Jan Joannides, Renewing the Countryside.

The analyses and views reported in this paper are those of the author(s). They are not necessarily endorsed by the Department of Applied Economics or by the University of Minnesota.

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Copies of this publication are available at http://ageconsearch.umn.edu/. Information on other titles in this series may be obtained from: Waite Library, University of Minnesota, Department of Applied Economics, 232 Ruttan Hall, 1994 Buford Avenue, St. Paul, MN 55108, U.S.A.

Copyright (c)2017 by Robert P. King, Larry Lev, Laurie Houston, Gail Feenstra, Shermain Hardesty, and Jan Joannides. All rights reserved. Readers may make copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.

A Survey of Specialty Food Manufacturers to Assess Whether They Represent an Attractive Outlet for Small and Medium-size Farmers

Robert P. King,^{*} Larry Lev, ^{**} Laurie Houston, ^{**} Gail Feenstra, ^{***} Shermain Hardesty, ^{***} and Jan Joannides, ^{****}

*University of Minnesota, **Oregon State University, *** University of California-Davis, **** Renewing the Countryside

This project was supported by Agriculture and Food Research Initiative Competitive Grant no. 2015-68006-22906 from the USDA National Institute of Food and Agriculture.

Introduction

Small and medium-size farmers are important because of their contributions to economic, social, and environmental sustainability. Most of these farmers, however, can't compete with larger producers in producing bulk commodities and while some have been successful selling fresh products through farmdirect and intermediated markets (such as sales to retailers and restaurants), those niches are quite limited. The "Beyond Fresh and Direct" Project explores the opportunities and challenges that small and medium-size farms encounter when they seek to enter the rapidly-growing specialty food marketplace. This sector consists of "...foods that exemplify quality and innovation, including artisanal, natural, and local products that are often made by small manufacturers, artisans, and entrepreneurs."

Survey Design and Implementation

This exploratory survey of specialty food manufacturers (SFMs) and their ingredients purchasing practices was designed to assess whether supplying ingredients to SFMs represents an attractive outlet for small and medium-sized farmers and ranchers. The sample frame was restricted to SFMs that produced products with primary ingredients from one of four categories -- dairy, meat, fruits/vegetables/nuts and grains. This focus provided variation across the subgroupings and limited the scope of the research.

We conducted a survey of 940 SFMs within these four product categories in three regions of the country (Minnesota/Wisconsin, Oregon/Washington, and California) from June to September 2015. These regions were selected because there are clusters of SFMs in various parts of these states that have personal connection with the research institutions in these states. Because of these connections, we expected to generate a higher response rate to our survey than if we had surveyed SFMs elsewhere.

Each region initially identified approximately 350 specialty food manufacturers from various lists and databases including a FoodHub membership directory, organic certification directories, state licensed food processor databases, the Winter Fancy Food Show Directory and other specialty food associations, and existing contacts. For prospective contacts that did not clearly fit our criteria at first glance we visited and reviewed the business's website to be sure it met our criteria. We included all manufacturers with primary ingredients in our four food groups. We excluded manufacturers that processed food that did not meet the Specialty Food Association's definition of a specialty food, if they imported most of their key ingredients from outside the U.S., or if they did not have a website. This resulted in a reduction of the sample from 1050 firms to 940 firms.

We developed the questionnaire to gather data from specialty food manufacturers about the key ingredients in their products, their modes of distribution and sales revenues. We also questioned the firms about their ingredient suppliers, their relationships with suppliers and whether these suppliers were small and medium-size farms that could be identified. The questionnaire also gathered information about the most important factors in choosing suppliers, benefits and challenges of working with small and medium-size farms, possible barriers of purchasing from these farms (if they don't already do so) and future interest in working with them. The questionnaire is included as Appendix A.

All lists were sent to the Oregon State Survey Research Center (SRC), which has an extensive experience in executing surveys. The SRC contacted all of the firms three times by email and once with a postcard with a request to fill out the survey online. Next, the SRC sent out paper copies of the survey to all firms that had not responded. Finally, because many more completed surveys had been received from the

Oregon/Washington region, the Minnesota/Wisconsin and California region representatives (University of Minnesota and University of California-Davis, respectively) phoned non-respondent eligible companies using scripted language and methodology to encourage participation in the study by either completing the survey on the web or submitting a paper survey.

We received 240 completed surveys for a response rate of 26 percent. While the goal was to have an equal number of completed surveys from each region, this was not the case even with the incorporation of the phone calls. The Oregon/Washington region provided 39 percent of the completed surveys followed by 31 percent for California and 30 percent for Minnesota/Wisconsin.

Characteristics of the Survey Respondents

We use responses to two survey questions as the primary basis for categorizing specialty food manufacturers in our sample. Question 1 asked specialty food manufacturers to identify broad product categories for the products they produce. The categories were:

- Dairy (not including fluid milk)
- Grains and/or baked goods
- Processed meats
- Processed fruits, vegetables, nut, herbs

Specialty food manufacturers were permitted to identify more than one product category. Responses to this question served as a reference for questions about the number of SKUs in each product category, modes of distribution, scope of distribution, and total sales revenue.

Question 7 asked specialty food manufacturers to identify a single most important ingredient category. This could be the ingredient purchased in greatest quantity or the ingredient that "defines" the company's set of products. The four key ingredient categories were:

- Milk
- Grain/Flour
- Meat
- Fruit/Vegetable/Nuts/Herbs

Responses to this question served as a reference for all subsequent questions about suppliers and supply chain relationships.

We expect a close but not perfect correspondence between responses to these two questions. Distributions of responses to each question are presented in table 1. Note that the total number of specialty food manufacturers for the product category question is larger than the number for the key ingredient question because a single can produce and sell products in more than one product category. Of the 240 specialty food manufacturers in the sample, 214 sell products only in one category, 20 sell products in two categories and six sell products in three categories.

	Number of Specialty food		Number of Specialty food
Product Category (Q1)	manufacturers	Key Ingredient (Q7)	manufacturers
Dairy	58	Milk	57
Grain and/or baked goods	61	Grain/Flour	46
Processed meats	25	Meat	21
Processed fruit, vegetables, nuts, herbs	128	Fruit/Vegetables/Nuts/Herbs	116

Table 1. Distributions of Specialty Food Manufacturers by Product Categories and Key Ingredients

The cross tabulation of responses to Questions 1 and 7 presented in table 2 shows the relationship between these two ways of classifying specialty food manufacturers in the sample. Most specialty food manufacturers with a product in a particular category identify their key ingredient in the corresponding category. For example, milk is the key ingredient for 54 of the 58 specialty food manufacturers that produce a dairy product; grain/flour is the key ingredient for 46 of the 61 specialty food manufacturers that produce a grain and/or baked goods product; meat is the key ingredient for 21 of the 25 specialty food manufacturers that produce a processed meat product; and fruit/vegetables/nuts/herbs are the key ingredient for 114 of the 128 specialty food manufacturers that produce a processed fruit, vegetables, nut, herbs product. Looking at the diagonal elements of this table and the right hand column of Table 1, we can also infer that only 54 of the 57 specialty food manufacturers that identify milk as their key ingredient produce a dairy product; all 46 of the specialty food manufacturers that identify grain/flour as their key ingredient produce a grain and/or baked goods product; all 21 of the specialty food manufacturers that identify meat as their key ingredient produce a processed meat product; and 114 of the 116 specialty food manufacturers that identify fruit/vegetables/nuts/herbs as their key ingredient produce a processed fruit, vegetables, nuts, herbs product. All three specialty food manufacturers that list milk as their key ingredient but do not produce a dairy product produce a processed fruit, vegetables, nuts, herbs product and two of those specialty food manufacturers also produce a grain and/or baked goods product. Both of the specialty food manufacturers that list fruit/vegetables/nuts/herbs as their key ingredient but do not produce a processed fruit, vegetables, nuts, herbs product produce a grain and/or baked goods product.

	Product Category (Q1) Grain and/or Processed Processed fruit, vegetable					
Key Ingredient (Q7)	Dairy	baked goods	meats	nuts, herbs		
Milk	54	5	0	8		
Grain/Flour	0	46	2	4		
Meat	0	0	21	2		
Fruit/Vegetables/Nuts/Herbs	4	10	2	114		

Table 2. Cross Tabulation of Specialty Food Manufacturers by Product Category and Key Ingredient

Understanding the relationships among responses to these two questions affects the way questions in the descriptive section of the survey are interpreted. Responses to the question about the number of unique SKUs were permitted to differ by product category and they are normalized by the number of

specialty food manufacturers offering products in each category. We will use responses to Question 1 as the basis for normalization of responses to questions about modes and scope of distribution. In effect, this assumes that all products produced by a specialty food manufacturer have the same modes and scope of distribution. In contrast, counting some specialty food manufacturers two or three times could lead to a distortion of findings on the distribution of specialty food manufacturers across sales classes, so in summarizing responses to this question we normalize both by the number of specialty food manufacturers in each product category and by the number of specialty food manufacturers in each key ingredient category.

Number of SKUs

The number of unique stock keeping units (SKUs) is a measure of product diversity. Table 3 summarizes responses on the number of unique SKUs produced by specialty food manufacturers offering products in each category. The relatively high percentages of specialty food manufacturers in the "None/No Response" category suggests that there may have been some confusion about the meaning of the term *SKU*. The distribution of specialty food manufacturers across the other response categories is quite similar for the dairy, grain and/or baked goods, and processed fruit, vegetables, nuts, herbs product categories, with 6 - 20 being the most common number of SKUs. Specialty food manufacturers selling processed meat products tend to offer more diversity, however, with 21 or more SKUs being the most frequent response.

	Product Category					
Number of SKUs	Dairy	Grain and/or baked goods	Processed meats	Processed fruit, vegetables, nuts, herbs		
None/No Response	14%	11%	8%	14%		
1 - 5	21%	26%	8%	26%		
6 - 20	36%	39%	36%	40%		
21 or more	29%	23%	48%	20%		

Table 3. Number of SKUs by Product Category

Modes of Distribution

Specialty foods are distributed through a variety of retail channels. Table 4 summarizes the retail distribution channels used by the 240 specialty food manufacturers in our sample. Specialty food stores are the most widely used retail channel, closely followed by natural food stores & cooperatives and supermarkets. More than half of the specialty food manufacturers in our sample distribute their products through restaurants. Surprisingly, nearly the same percentage of specialty food manufacturers distribute their products through online channels.

Table 5 shows the usage of retail distribution modes by product category. Specialty food manufacturers that sell dairy products are much more likely than the average specialty food manufacturer in our sample to distribute their products through restaurants and much less likely to distribute their products through online channels. Specialty food manufacturers that sell grain and/or baked good products are much more likely than the average specialty food manufacturer to distribute through specialty food stores and much less likely to sell in farmers markets. Specialty food manufacturers that sell processed meat products are much more likely than other specialty food manufacturers to sell through a store or shop they own and much less likely to sell through specialty food stores, natural food stores &

cooperatives and supermarkets. Finally, specialty food manufacturers that sell processed fruit, vegetables, nuts and herbs use an assortment of retail channels that is similar to sample averages. This is an expected result since they represent the largest group of specialty food manufacturers in our sample. The one noteworthy difference is that they are much less likely than average to distribute their products through restaurants.

Mode of Distribution	Frequency	Percent
Specialty Food Stores	179	75%
Natural Food Stores & Cooperatives	167	70%
Supermarkets	149	62%
Restaurants	134	56%
Online	133	55%
Farmers markets	100	42%
Store/Shop Owned by Our Company	58	24%
Other/No Response	47	20%
Convenience Stores	36	15%

Table 4. Modes of Retail Distribution

Table 5. Modes of Retail Distribution by Product Category

	Product Category				
		Grain and/or	Processed	Processed fruit,	
Mode of Distribution	Dairy	baked goods	meats	vegetables, nuts, herbs	Overall
Specialty Food Stores	78%	82%	52%	75%	75%
Natural Food Stores & Cooperatives	72%	74%	52%	67%	70%
Supermarkets	69%	66%	44%	59%	62%
Restaurants	81%	49%	60%	45%	56%
Online	33%	61%	68%	58%	55%
Farmers markets	45%	31%	48%	42%	42%
Store/Shop Owned by Our Company	22%	26%	56%	21%	24%
Other/No Response	21%	18%	16%	22%	20%
Convenience Stores	22%	16%	16%	11%	15%

Scope of Distribution

Specialty food manufacturers were asked to report the broadest scope of retail distribution. For example, a specialty food manufacturer with both regional and national distribution would select "National". Specialty food manufacturers differ greatly in their scope of distribution, as is shown in table 6 for the 237 specialty food manufacturers that responded to this question. Approximately 31 percent of specialty food manufacturers characterize their scope of distribution as local or state-wide, and another 33 percent distribute at a regional level. Slightly more than one-third of specialty food manufacturers distribute nationally.

Scope of Distribution	Frequency	Percent
Local	58	24%
State-Wide	17	7%
Regional	78	33%
National	57	24%
International	27	11%

Table 6. Scope of Retail Distribution

Table 7 shows how the scope of distribution differs across product categories. Processed meat products stand out for being much more likely than the average specialty food manufacturer to limit the scope of distribution to local, state-wide or regional. Patterns in the scope of distribution for specialty food manufacturers in other product categories are quite similar to those for the entire sample.

		Product Category					
Scope of Distribution	Dairy	Grain and/or baked goods	Processed meats ^a	Processed fruit, vegetables, nuts, herbs	Overall		
Local	28%	23%	40%	25%	24%		
State-Wide	7%	10%	16%	6%	7%		
Regional	33%	38%	28%	31%	33%		
National	25%	23%	16%	22%	24%		
International	7%	5%	0%	16%	11%		

Table 7. Scope of Retail Distribution by Product Category

^a The processed meat category is significantly different from the overall average (p = 0.042).

Size Distribution of Specialty Food Manufacturers

Table 8 summarizes information on size distribution for the 232 specialty food manufacturers in our sample that responded to a question about annual sales. More than 40 percent are very small, with annual sales less than \$100,000, and another 17 percent have annual sales in the range between \$100,000 and \$500,000.

Table 8. Size Distribution of Specialty Food Manufacturers

Annual Sales	Frequency	Percent
Less than \$100,000	100	43%
\$100,001 - \$499,999	41	18%
\$500,000 - \$999,999	19	8%
\$1,000,000 - \$4,999,999	33	14%
\$5,000,000 or more	39	17%

Table 9 shows the size distribution of specialty food manufacturers grouped by product category. It is important to keep in mind that there is double counting, since some specialty food manufacturers manufacture and sell products in more than one product category. Therefore, we also present table 10, which shows the size distribution of specialty food manufacturers grouped by their key ingredient. Relative to percentages of specialty food manufacturers in each size category for the entire sample, specialty food manufacturers that sell dairy products or that identify milk as their key ingredient are much more likely than the average specialty food manufacturers that sell processed fruit, vegetables, nut or herbs or that identify fruits/vegetables/nuts/herbs as their key ingredient are more likely than average to have annual sales of less than \$500,000. Finally, specialty food manufacturers that sell processed meat products or that identify meat as their key ingredient are much less likely than the average to be in the \$100,001 - \$499,999 sales category.

	Product Category ^a				
Annual Sales	Dairy	Grain and/or baked goods	Processed meats	Processed fruit, vegetables, nuts, herbs	Overall
Less than \$100,000	39%	54%	25%	46%	43%
\$100,001 - \$499,999	14%	9%	29%	20%	18%
\$500,000 - \$999,999	7%	11%	13%	6%	8%
\$1,000,000 - \$4,999,999	11%	21%	25%	14%	14%
\$5,000,000 or more	30%	5%	8%	14%	17%

Table 9. Size Distribution of Specialty Food Manufacturers by Product Category

^a The size distributions of specialty food manufacturers that sell dairy, grain and/or baked goods, and processed meat products are significantly different from the overall size distribution at the 0.052. 0.006, and 0.093 levels of significance, respectively.

Annual Sales	Milk	Grain/Flour	Meat	Fruit/Vegetable/ Nuts/Herbs	Overall
Less than \$100,000	36%	49%	25%	48%	43%
\$100,001 - \$499,999	16%	7%	35%	19%	18%
\$500,000 - \$999,999	7%	14%	10%	6%	8%
\$1,000,000 - \$4,999,999	11%	23%	20%	12%	14%
\$5,000,000 or more	30%	7%	10%	15%	17%

Table 10. Size Distribution of Specialty Food Manufacturers by Key Ingredient

^a Collectively, the size distributions of specialty food manufacturers, when specialty food manufacturers are grouped by key ingredient, are significantly different from the overall size distribution at the 0.013 level.

It is also interesting to examine how both the mode of distribution and the scope of distribution differ for specialty food manufacturers across the five size categories.

Table 11 shows how the use of retail distribution channels differs for specialty food manufacturers classified by the level of annual sales. Use of convenience stores, natural food stores & cooperatives, and "other" retail channels does not vary significantly across specialty food manufacturer size categories. Use of a store/shop owned by the company is much more prevalent for specialty food manufacturers in the three intermediate size categories and differs significantly across size categories at the 0.01 level of significance. Use of the supermarket channel is relatively low for specialty food manufacturers in the two smallest size categories and is highest for specialty food manufacturers in the two smallest size categories and is highest for specialty food manufacturers in the middle and largest size categories. Usage of three other retail channels – farmers markets, restaurants, and online – differs significantly across size categories at the 0.001 level of significance. As expected, use of farmers markets falls steadily as specialty food manufacturers size increases. Sales through restaurants is generally higher for larger specialty food manufacturers, with usage being highest for the third and fourth sales revenue categories. Finally, use of online channels is highest for specialty food manufacturers in the \$100,001 - \$499,999 annual sales category and then falls steadily as the level of annual sales increases.

		Annual Sales				
	Less than	\$100,001 -	\$500,000 -	\$1,000,000 -	\$5,000,000	
Mode of Distribution	\$100,000	\$499,999	\$999,999	\$4,999,999	or more	Overall
Specialty Food Stores	71%	83%	84%	79%	66%	75%
Natural Food Stores & Cooperatives	65%	78%	89%	67%	68%	70%
Supermarkets**	55%	51%	89%	67%	76%	62%
Restaurants***	40%	59%	74%	76%	66%	56%
Online***	59%	83%	58%	45%	32%	55%
Farmers markets***	53%	54%	37%	33%	16%	42%
Store/Shop Owned by Our Company**	16%	37%	37%	39%	16%	24%
Other	17%	20%	21%	6%	34%	20%
Convenience Stores	12%	10%	26%	12%	24%	15%

Table 11. Mode of Distribution by Size Distribution of Specialty Food Manufacturers

** Use of this mode of distribution differs significantly across size categories at the 0.01 level.

*** Use of this mode of distribution differs significantly across size categories at the 0.001 level.

Table 12 shows how the scope of distribution differs across the specialty food manufacturer size categories. As expected, the scope of distribution generally broadens as the level of annual sales increases. No specialty food manufacturers in the largest size category limit their scope of distribution to local or state-wide sales. Conversely, only two percent of the specialty food manufacturers in the smallest size category sell internationally. These patterns reflect the reality that specialty food manufacturers (SFMs) face as they increase their sales. These are often niche market products that are purchased by only a small percentage of consumers in any location, and demand is often relatively unresponsive to changes in price. Therefore, expanding the scope of the market is often the only realistic way to increase sales.

		Annual Sales ^a					
Scope of	Less than	\$100,001 -	\$500,000 -	\$1,000,000 -	\$5,000,000		
Distribution	\$100,000	\$499,999	\$999,999	\$4,999,999	or more	Overall ^b	
Local	44%	27%	0%	9%	0%	25%	
State-Wide	8%	5%	11%	12%	0%	7%	
Regional	31%	39%	32%	30%	31%	32%	
National	15%	24%	47%	36%	28%	25%	
International	2%	5%	11%	12%	41%	11%	

^a Patterns in the scope of distribution are significantly different at the 0.000 level across annual sales categories.

^b Overall percentages are calculated after excluding non-responses on one or both questions.

Procedures for Sourcing Key Ingredients

The second section of the survey instrument focused on procedures for sourcing the "key ingredient" identified by the respondent. Respondents were asked to identify supplier types for their key ingredient, the nature and duration of their relationship with their principal supplier, their ability to identify farms that produce the key ingredient, and very important factors in choosing a principal supplier.

Supplier Types

Table 13 summarizes responses from 236 specialty food manufacturers to a question about types of suppliers for the key ingredient. Respondents were asked to select all types of suppliers their company used in 2014, so one specialty food manufacturer could have multiple types of suppliers. On average, specialty food manufacturers use 1.8 supplier types and 47.9 percent of specialty food manufacturers use a single supplier type. The most commonly used supplier types are direct purchases from farms and purchases from distributors. In this sample more than one-fourth of specialty food manufacturers procure their key ingredient from a farm owned by their company.

Supplier Types Used	Frequency	Percent
Direct Purchase from Farm(s)	112	47%
Distributor	110	47%
Farm Owned by Our Company	65	28%
Manufacturer	54	23%
Farmer Cooperative	45	19%
Co-Packer	26	11%
Other	12	5%

Table 13. Supplier Types for Key Ingredient

Table 14 shows how the use of supplier types differs across specialty food manufacturers categorized by key ingredient. Procurement from a farm owned by the company and direct purchases from farms are much less common for specialty food manufacturers with grain/flour as a key ingredient, and procurement through a distributor or manufacturer is much more common for these specialty food manufacturers.

Table 15 shows the distribution of principal supplier types – i.e., the single most important supplier type for a company; 239 specialty food manufacturers responded to this question. Distributors are the most common principal supplier type, followed closely by direct purchase from farms and procurement from a farm owned by the respondent's company. Having either a farmer cooperative or a co-packer as a key supplier is relatively rare.

		Ke	ey Ingredie	ent	_
Supplier Types Used	Milk	Grain/Flour	Meat	Fruit/Vegetable/ Nuts/Herbs	Overall
Direct Purchase from Farm(s)***	43%	22%	43%	61%	47%
Distributor ^{***} Farm Owned by Our	18% 36%	60% 9%	43% 38%	56% 29%	47% 28%
Company*** Manufacturer [*]	21%	40%	58% 14%	18%	28% 23%
Farmer Cooperative	25%	16%	5%	20%	19%
Co-Packer	7%	9%	19%	12%	11%
Other	4%	9%	0%	5%	5%

Table 14. Use of Supplier Types for Specialty Food Manufacturers Categorized by Key Ingredient

* Use of this supplier type differs significantly across key ingredient categories at the 0.10 level.

*** Use of this supplier type differs significantly across key ingredient categories at the 0.001 level.

Principal Supplier Type	Frequency	Percent
Distributor	65	27%
Direct Purchase from Farm(s)	60	25%
Farm Owned by Our Company	51	21%
Manufacturer	26	11%
Farmer Cooperative	15	6%
Other	14	6%
Co-Packer	8	3%

Table 16 shows how the distribution of principal supplier types differs across specialty food manufacturers categorized by key ingredient. When grain/flour is the key ingredient, procurement is much more likely to be from a distributor or manufacturer than for other key ingredients. Approximately 70 percent of specialty food manufacturers that identify milk as their key ingredient procure directly from farms or farmer cooperatives. These same specialty food manufacturers are less likely to procure from a distributor or manufacturer than are specialty food manufacturers that list meat and fruit/vegetable/nuts/herbs as their key ingredient. Finally, specialty food manufacturers that list meat as their key ingredient are the most likely to have a farm owned by the specialty food manufacturer as a principal supplier.

		Ke	y Ingredie	ent	
Principal Supplier Type	Milk	Grain/Flour	Meat	Fruit/Vegetable/ Nuts/Herbs	Overall
Distributor	9%	46%	29%	29%	27%
Direct Purchase from Farm(s)	32%	9%	24%	29%	25%
Farm Owned by Our Company	26%	7%	33%	23%	21%
Manufacturer	14%	24%	10%	4%	11%
Farmer Cooperative	12%	2%	0%	6%	6%
Other	4%	9%	5%	6%	6%
Co-Packer	4%	4%	0%	3%	3%

Table 16. Principal Supplier Type for Specialty Food Manufacturers Categorized by Key Ingredient

^a The distributions of principal supplier types across specialty food manufacturers grouped by key ingredient are significantly different from the overall distribution at the 0.000 level.

Table 17 shows how the distribution of principal supplier types differs across specialty food manufacturers (SFMs) categorized by annual sales. The percentage of specialty food manufacturers that identify a farm owned by their company as their key supplier declines fairly steadily as annual sales increases, but often larger specialty food manufacturers substitute direct purchases from farms. Reliance on a farmer cooperative increases steadily across size categories. This makes sense, because larger specialty food manufacturers may require more of a key ingredient than can be produced by a single farm and working with a cooperative lowers transaction costs. Finally, it is noteworthy that specialty food manufacturers in the smallest sales category often rely on a distributor or manufacturer as a principal supplier. These specialty food manufacturers may be too small to buy significant quantities of ingredients from farms or farmer cooperatives. As they grow, they may be more likely to source their key ingredient through direct purchases from farms.

	Annual Sales ^a			_		
	Less than	\$100,001 -	\$500,000 -	\$1,000,000 -	\$5,000,000	
Principal Supplier Type	\$100,000	\$499,999	\$999,999	\$4,999,999	or more	Overall ^b
Distributor	33%	24%	26%	24%	15%	27%
Direct Purchase from Farm(s)	12%	32%	47%	21%	41%	25%
Farm Owned by Our Company	28%	27%	16%	18%	5%	22%
Manufacturer	12%	5%	5%	21%	8%	11%
Farmer Cooperative	2%	2%	5%	12%	18%	6%
Other	9%	7%	0%	0%	5%	6%
Co-Packer	3%	2%	0%	3%	8%	3%

Table 17. Principal Supplier Type for Specialty Food Manufacturers Categorized by Size Distribution ofSpecialty Food Manufacturers

^a The distributions of principal supplier types across specialty food manufacturers grouped by annual sales are significantly different from the overall distribution at the 0.000 level.

^b Overall percentages are calculated after excluding non-responses on one or both questions.

Relationships with Principal Suppliers

Survey respondents who did not identify a farm owned by their company as their principal supplier were asked to characterize their relationship with their principal supplier. Allowable responses were: formal contract; informal commitment or "handshake agreement"; none, purchases made on open market; and other. Specialty food manufacturers that identified a farm owned by their company were classified as being vertically integrated. Table 18 presents the distribution of principal supplier relationships for the 238 specialty food manufacturers that answered this question. It is noteworthy that an informal commitment is the most common relationship and that percentages of specialty food manufacturers with relationships classified as vertical integration, formal contract, and open market purchase are remarkably similar.

Table 19 shows how the distribution of principal supplier relationships differs for specialty food manufacturers grouped by key ingredient. Specialty food manufacturers that identify grain/flour as their key ingredient stand out. They are much less likely than other specialty food manufacturers to be vertically integrated and are much more likely than specialty food manufacturers in the milk and meat key ingredient categories to purchase inputs in open markets. Also noteworthy is the fact that approximately one-third of the specialty food manufacturers in each key ingredient category have informal, "handshake" commitments with their principal suppliers.

Table 20 shows how the distribution of principal supplier relationships differs for specialty food manufacturers grouped by annual sales. Specialty food manufacturers in the largest sales category stand out here. They are much less likely than smaller specialty food manufacturers to be vertically integrated (in the sense that they are the primary supplier of their own primary ingredient) and are much more likely to use formal contracts with their principal suppliers. It is also interesting to note that specialty food manufacturers to purchase their key ingredient through open markets. Finally, a large portion of specialty food manufacturers in each size category have an informal, "handshake" commitment with their principal supplier.

Relationship with		
Principal Supplier	Frequency	Percent
Vertical Integration	51	21%
Formal Contract	54	23%
Informal Commitment	76	32%
Open Market Purchase	55	23%
Other	2	1%

Table 18. Distribution of Relationships with Principal Supplier

		Ke	y Ingredie	ent ^a	_
Relationship with Principal Supplier	Milk	Grain/Flour	Meat	Fruit/Vegetable/ Nuts/Herbs	Overall
Vertical Integration	27%	7%	33%	23%	21%
Formal Contract	27%	26%	19%	20%	23%
Informal Commitment	32%	35%	33%	30%	32%
Open Market Purchase	14%	30%	10%	27%	23%
Other	0%	2%	5%	0%	1%

Table 19. Relationship with Key Supplier for Specialty Food Manufacturers Categorized by Key Ingredient

^a The distributions of principal supplier relationships across specialty food manufacturers grouped by key ingredient are significantly different from the overall distribution at the 0.068 level.

Table 20. Relationship with Key Supplier for Specialty Food Manufacturers Categorized SizeDistribution of Specialty Food Manufacturers

	Annual Sales ^a					
Relationship with	Less than	\$100,001 -	\$500,000 -	\$1,000,000 -	\$5,000,000	
Principal Supplier	\$100,000	\$499,999	\$999,999	\$4,999,999	or more	Overall [♭]
Vertical Integration	28%	27%	16%	18%	5%	22%
Formal Contract Informal	10%	12%	21%	24%	66%	23%
Commitment Open Market	23%	34%	63%	42%	26%	32%
Purchase	37%	27%	0%	15%	3%	23%
Other	1%	0%	0%	0%	0%	0%

^a The distributions of principal supplier relationships across specialty food manufacturers grouped by annual sales are significantly different from the overall distribution at the 0.000 level.

^b Overall percentages are calculated after excluding non-responses on one or both questions.

The duration of a specialty food manufacturer's relationship with its key supplier and the extent to which a specialty food manufacturer concentrates its ingredient purchases with a single supplier are also important for understanding the relationships specialty food manufacturers have with their suppliers. Measuring the duration of the supplier relationship is difficult because it must be done relative to the length of time a specialty food manufacturer has been in business. We did ask the specialty food manufacturers that did not identify a farm owned by their company as their principal supplier how long they had been buying from their principal supplier. We also asked all specialty food manufacturers how long they had been selling products produced with their key ingredient. Response options for both questions were: 1 year or less, more than 1 year to 5 years, more than 5 years to 10 years and more than 10 years. Table 21 shows the frequency of responses to these two questions for the 184 specialty food manufacturers that responded to both questions.¹ It is striking that by far the most common

¹ This excludes all 51 firms that are vertically integrated, since they were not asked how long they had been buying from their principal supplier. Note that six firms reported having bought from their principal supplier for longer than having sold the product made with their key ingredient.

response is that specialty food manufacturers have been purchasing from their principal supplier for as long as they have been making products with the key ingredient (these are the answers on the diagonal). This suggests that supplier relationships are very stable.

-	Years Selling Product Made with Key Ingredient						
Years Buying from Principal Supplier	1 year or less	More than 1 year to 5 years	More than 5 years to 10 years	More than 10 years			
1 year or less	3	5	0	0			
More than 1 year to 5 years	1	56	9	14			
More than 5 years to 10 years	0	3	18	22			
More than 10 years	0	0	2	51			

Table 21. Years Buying from Principal Supplier for Specialty Food Manufacturers Categorized by YearsSelling Product Made with Key Ingredient

We also asked specialty food manufacturers that did not identify a farm owned by their company as their principal supplier what share of the key ingredient is purchased from the principal supplier. The distribution of 236 valid responses is shown in table 22. It is noteworthy that 76% - 100% is the most frequent response, followed closely by 51% - 75%. Nearly half of the specialty food manufacturers in our sample purchase at least half of their key ingredient from a single supplier. Another 21 percent of specialty food manufacturers in the sample are vertically integrated, with a farm owned by their company as their principal supplier. They were not asked to respond to this question, but it is likely that they also source a large share of their key ingredient requirements from a single source.

Table 23 shows how the distribution of key ingredient supplier concentration differs for specialty food manufacturers categorized by key ingredient. Specialty food manufacturers that identify milk and meat as their key ingredient stand out. For specialty food manufacturers in the milk category, 59.6 percent purchase at least half of their milk from a single principal supplier and another 26.3 percent are vertically integrated. For specialty food manufacturers in the meat category, 57.2 percent purchase at least half of their key ingredient requirements from a single principal supplier and another 33.3 percent are vertically integrated.

Share of Key Ingredient Purchases		
from Principal Supplier	Frequency	Percent
1% - 25%	17	7%
26% - 50%	44	19%
51% - 75%	55	23%
76% - 100%	63	27%
Don't Know	6	3%
Vertical Integration	51	22%

Table 22. Distribution of Share of Key Ingredient Purchases from Principal Supplier

Table 23. Share of Key Ingredient Purchases from Principal Supplier by Key Ingredient

Share of Key Ingredient		_			
Purchases from Principal Supplier	Milk	Grain/Flour	Meat	Fruit/Vegetable/ Nuts/Herbs	Overall
		•		•	
1% - 25%	4%	9%	0%	10%	7%
26% - 50%	9%	25%	0%	24%	19%
51% - 75%	23%	18%	30%	24%	23%
76% -m 100%	37%	39%	30%	17%	27%
Don't Know	2%	2%	5%	3%	3%
Vertical Integration	26%	7%	35%	23%	22%
No Response	4%	9%	0%	10%	7%

^a The distributions of principal supplier concentration across specialty food manufacturers grouped by key ingredient are significantly different from the overall distribution at the 0.025 level.

Table 24 shows how the distribution of key ingredient supplier concentration differs for specialty food manufacturers categorized by annual sale revenue. Here it is noteworthy that the concentration of key ingredient purchases from a single principal supplier declines as annual sales increases. Even specialty food manufacturers in the largest sale category do source a significant portion of their key ingredient requirements from their principal supplier.

In summary, the specialty food manufacturing specialty food manufacturers in our sample often source their key ingredient directly from farms, and more than 20 percent identify a farm owned by their company as their principal supplier. In addition, there are important differences across specialty food manufacturers grouped by key ingredient and by annual sales, Relationships with suppliers are longstanding, and they are frequently based on informal "handshake" commitments rather than on more formal contracts or anonymous open market transactions. Finally, while most specialty food manufacturers appear to have more than one supplier for their key ingredient, about 70 percent of the specialty food manufacturers in our sample are either vertically integrated or purchase at least half of their key ingredient from a single principal supplier.

Share of Key	Annual Sales ^a							
Ingredient Purchases from Principal Supplier	Less than \$100,000	\$100,001 - \$499,999	\$500,000 - \$999,999	\$1,000,000 - \$4,999,999	\$5,000,000 or more	Overall [♭]		
1% - 25%	4%	5%	6%	9%	18%	7%		
26% - 50%	21%	22%	22%	15%	13%	19%		
51% - 75%	21%	20%	11%	30%	37%	24%		
76% - 100%	26%	27%	44%	24%	18%	26%		
Don't Know	0%	0%	0%	3%	8%	2%		
Vertical Integration	28%	27%	17%	18%	5%	22%		

Table 24. Share of Key Ingredient Purchases from Principal Supplier by Size Distribution of SpecialtyFood Manufacturers

^a The distributions of principal supplier concentration across specialty food manufacturers grouped by annual sales are significantly different from the overall distribution at the 0.079 level.

^b Overall percentages are calculated after excluding non-responses on one or both questions.

Ability to Identify Farm Suppliers

Given the focus of this project on examining opportunities for small and medium-sized farms to supply specialty food manufacturers, we next look more closely at the knowledge that the manufacturers have about the farms that supply them with ingredients.

Table 25 shows the distribution of specialty food manufacturers that are able to identify at least one specific farm supplier. Nearly three-quarters of the specialty food manufacturers in our sample say they can identify at least one farm. Table 26 shows how this differs across specialty food manufacturers grouped by key ingredient. Specialty food manufacturers that specify grain/flour as their key ingredient stand out here because they are much less likely than other specialty food manufacturers to be able to identify a farm supplier. As noted earlier, these specialty food manufacturers are more likely to purchase through distributors or manufacturers that might not be able to convey information about farms that produced the raw ingredient. Although the percentage of specialty food manufacturers that can identify a farm supplier is high for all three of the other key ingredients, it is especially high for specialty food manufacturers that identify milk as their key ingredient.

Table 25. Tabulation of Ability to Identify at Least One Farm Supplier

Ability to Identify Farm Suppliers	Frequency	Percent
Can identify at least one farm	173	72%
Cannot identify any farms	67	28%

Table 27 shows how the ability to identify at least one farm supplier differs for specialty food manufacturers grouped by annual sales. It is surprising that there is no clear trend across specialty food manufacturer size categories and that specialty food manufacturers with annual sales below \$100,000 are least likely to be able to identify a farm supplier.

The 173 survey respondents who were able to identify at least one farm supplier or who identified a farm owned by their company as their principal supplier were asked about the predominant size of farms that supply their key ingredient. Responses for the 170 specialty food manufacturers that answered this question are summarized in Table 28. Over half source predominantly from small and medium-sized farms, and nearly 20 percent do not know the predominant annual sales level for the farms that supply them.

Ability to Identify Farm Suppliers		Grain/Flour	Meat	Fruit/Vegetable/ Nuts/Herbs	Overall
Can identify at least one farm	Milk 88%	39%	71%	78%	72%
, Cannot identify any farms	12%	61%	29%	22%	28%

Table 26. Ability to Identify Farm Suppliers by Key Ingredient

^a The distributions of ability to identify farm suppliers across specialty food manufacturers grouped by key ingredient are significantly different from the overall distribution at the 0.000 level.

Table 27. Ability to Identify Farm Suppliers by Size Distribution of Specialty Food Manufacturers

		Annual Sales ^a						
Ability to Identify Farm Suppliers	Less than \$100,000	\$100,001 - \$499,999	\$500,000 - \$999,999	\$1,000,000 - \$4,999,999	\$5,000,000 or more	Overall ^b		
Can identify at least one farm	63%	78%	84%	67%	85%	72%		
Cannot identify any farms	37%	22%	16%	33%	15%	28%		

^a The distributions of ability to identify farm suppliers across specialty food manufacturers grouped by annual sales are significantly different from the overall distribution only at the 0.048 level.

^b Overall percentages are calculated after excluding non-responses on one or both questions.

Table 28. Tabulation of Predominant Size of Farm Ingredient Suppliers

Predominant Size of Farms that Supply Key Ingredient	Frequency	Pct.
Small of medium-sized (annual sales < \$1,000,000)	92	54%
Large (annual sales <u>></u> \$1,000,000)	45	26%
Don't Know	33	19%

Tables 29 and 30 show how the predominant size of farm suppliers differs for specialty food manufacturers grouped by key ingredient and annual sales. The share of specialty food manufacturers that identify small and medium-sized as the predominant size of their farm suppliers is lowest for specialty food manufacturers whose key ingredient is grain/flour and highest for specialty food

manufacturers whose key ingredient is meat, but differences are not statistically significant at even the 15 percent level of significance. In contrast, the share of specialty food manufacturers that purchase predominantly from small and medium-sized farms declines sharply as annual sales increases, and only about one-fourth of the specialty food manufacturers in the largest sales category purchase predominantly from small and medium-sized farms.

Predominant Size of Farms that Supply Key Ingredient	Milk	Grain/Flour	Meat	Fruit/Vegetable/ Nuts/Herbs	Overall⁵
Small or medium-sized (annual sales < \$1,000,000)	56%	29%	60%	57%	54%
Large (annual sales > \$1,000,000)	29%	35%	33%	22%	26%
Don't Know	15%	35%	7%	21%	19%

Table 29. Predominant Size of Farm Ingredient Suppliers by Key Ingredient

^a The distributions of predominant size of farm suppliers across specialty food manufacturers grouped by key ingredient are significantly different from the overall distribution at the 0.249 level.

^b Overall percentages are calculated after excluding non-responses for the farm size question.

	Annual Sales ^a						
Predominant Size of Farms that Supply Key Ingredient	Less than \$100,000	\$100,001 - \$499,999	\$500,000 - \$999,999	\$1,000,000 - \$4,999,999	\$5,000,000 or more	Overall ^b	
Small or medium-sized (annual sales < \$1,000,000)	68%	69%	38%	45%	26%	54%	
Large (annual sales ≥ \$1,000,000)	5%	19%	63%	36%	58%	27%	
Don't Know	27%	13%	0%	18%	16%	18%	

Table 30. Predominant Size of Farm Ingredient Suppliers by Size Distribution of Specialty Food Manufacturers

^a The distributions of predominant size of farm suppliers across specialty food manufacturers grouped by annual sales are significantly different from the overall distribution at the 0.000 level.

^b Overall percentages are calculated after excluding non-responses on one or both questions.

Table 31 shows how the predominant size of farm suppliers differs for specialty food manufacturers grouped by their relationship with their principal supplier. Here it is noteworthy that just over 80 percent of the vertically integrated specialty food manufacturers indicate that they source predominantly from small and medium-sized farms. This may indicate that extension of the farm business into specialty food manufacturing is a strategy being pursued by small and medium-sized farms. Also noteworthy is the small percentage of small and medium-sized farm suppliers for specialty food manufacturers that use formal contracts when purchasing their key ingredient.

In summary, a large share of the specialty food manufacturers in our sample are able to identify at least one farm supplier for their key ingredient, and these specialty food manufacturers often purchase from small and medium-sized farms.

Very Important Factors in Choosing a Supplier

We also asked the respondents to the survey to rate the importance of thirteen factors considered in choosing suppliers for their key ingredient. Table 32 reports the number and percentage of specialty food manufacturers identifying each factor as "very important." Quality is clearly the most important factor, with nearly 90 percent of rims identifying this as "very important." Food safety practices, year-round availability, price, and local or regional sources are also identified as "very important" by more than 50 percent of specialty food manufacturers; and convenience of logistics is identified as "very important" by 40 percent of specialty food manufacturers.

Table 31. Predominant Size of Farm Ingredient Suppliers by Relationship with Principal Supplier

	Relationship with Principal Supplier ^a					
Predominant Size of Farms that Supply Key Ingredient	Vertical Integration	Formal Contract	Informal Commitment	Open Market Purchase	Other	Overall ^b
Small or medium-sized (annual sales < \$1,000,000)	80%	24%	51%	50%	0%	54%
Large (annual sales <u>></u> \$1,000,000)	20%	58%	23%	12%	0%	27%
Don't Know	0%	18%	26%	38%	100%	19%

^a The distributions of predominant size of farm suppliers across specialty food manufacturers grouped by relationship with principal supplier are significantly different from the overall distribution at the 0.000 level.

^b Overall percentages are calculated after excluding non-responses on one or both questions.

Table 32. Very Important Factors in Choosing a Supplier

Frequency	Percentage
213	89%
180	75%
156	65%
149	62%
142	59%
97	40%
77	32%
72	30%
53	22%
44	18%
40	17%
39	16%
25	10%
	213 180 156 149 142 97 77 72 53 44 40 39

Table 33 shows how "very important" factor ratings differ for specialty food manufacturers grouped by key ingredient. The percentage of specialty food manufacturers identifying year-round availability as "very important" is significantly lower for specialty food manufacturers whose key ingredient is fruit/vegetable/nuts/herbs. The percentage of specialty food manufacturers identifying local or regional sources as "very important" is significantly lower for specialty food manufacturers whose key ingredient is grain/flour or meat. Otherwise differences across specialty food manufacturers grouped by key ingredient are not statistically significant.

		_			
Very Important Factors in Choosing Suppliers	Fruit/Vegetable/ Milk Grain/Flour Meat Nuts/Herbs			Overall	
Quality	82%	93%	100%	88%	89%
Food safety practices	74%	80%	86%	72%	75%
Year-round availability***	75%	87%	90%	47%	65%
Price	54%	74%	57%	62%	62%
Local or regional sources [*]	70%	43%	43%	63%	59%
Convenience of logistics	46%	41%	29%	40%	40%
Non-GMO certification	23%	43%	33%	32%	32%
"Stories" about ingredients used in marketing	37%	22%	43%	28%	30%
Organic certification	21%	22%	5%	26%	22%
Minimum quantity for order	14%	22%	10%	21%	18%
Gluten-free certification	11%	28%	19%	15%	17%
Other certification	21%	11%	29%	14%	16%
Maximum quantity for order	12%	7%	14%	10%	10%

 Table 33. Very Important Factors in Choosing a Supplier for Specialty Food Manufacturers Categorized by Key Ingredient

* Importance of this factor differs significantly across key ingredient categories at the 0.05 level.

*** Importance of this factor differs significantly across key ingredient categories at the 0.001 level.

Tables 34 and 35 show how "very important" factor ratings differ for specialty food manufacturers grouped by annual sales and by relationship with principal supplier. There is only one factor in table 34 – other certifications – for which "very important" ratings differ significantly across specialty food manufacturers grouped by annual sales.

In contrast there are several noteworthy differences in table 35 for specialty food manufacturers grouped by relationship with their principal supplier. Price is significantly less important for specialty food manufacturers that are vertically integrated and specialty food manufacturers that have an informal "handshake" commitment with their principal supplier. Other certifications are significantly more important for specialty food manufacturers that purchase their key ingredient through open market transactions, and minimum order quantity is considerably less important for vertically integrated specialty food manufacturers and more important for specialty food manufacturers that purchase their key ingredient under formal contracts. Finally, "stories" about ingredients that can be used in marketing are considerably more important for specialty food manufacturers that are vertically integrated or procure ingredients under informal "handshake" commitments.

			Annual Sales			
Very Important Factors in Choosing Suppliers	Less than \$100,000	\$100,001 - \$499,999	\$500,000 - \$999,999	\$1,000,000 - \$4,999,999	\$5,000,000 or more	Overall ^a
Quality	87%	90%	100%	91%	90%	90%
Food safety practices	75%	68%	74%	82%	82%	76%
Year-round availability	66%	61%	68%	64%	67%	65%
Price	66%	54%	63%	61%	67%	63%
Local or regional sources	56%	71%	63%	61%	56%	60%
Convenience of logistics	46%	29%	58%	36%	33%	41%
Non-GMO certification	27%	24%	53%	27%	44%	31%
"Stories" about ingredients used in marketing	35%	22%	42%	30%	18%	30%
Organic certification	20%	17%	16%	27%	31%	22%
Minimum quantity for order	25%	7%	11%	15%	18%	18%
Other certification*	11%	12%	21%	15%	33%	16%
Gluten-free certification	15%	12%	21%	12%	23%	16%
Maximum quantity for order	9%	5%	11%	15%	18%	11%

Table 34. Very Important Factors in Choosing a Supplier for Specialty Food Manufacturers Categorized by Annual Sales

^a Overall percentages are calculated after excluding non-responses on one or both questions.

^{*} Importance of this factor differs significantly across sales categories at the 0.05 level.

		_			
Very Important Factors in	Vertical	Formal	Informal	Open	
Choosing Suppliers	Integration	Contract	Commitment	Market	Overall ^a
Quality	86%	93%	93%	80%	89%
Food safety practices	73%	81%	71%	75%	75%
Year-round availability	53%	74%	62%	71%	65%
Price ^{**}	49%	76%	53%	73%	62%
Local or regional sources	69%	63%	58%	49%	59%
Convenience of logistics	43%	41%	39%	40%	41%
Non-GMO certification	37%	30%	33%	25%	31%
"Stories" about ingredients used in marketing ^{***}	53%	22%	32%	13%	30%
Organic certification	22%	26%	22%	18%	22%
Minimum quantity for order [*]	6%	28%	17%	22%	18%
Gluten-free certification	10%	22%	14%	20%	17%
Other certification [*]	27%	20%	16%	4%	17%
Maximum quantity for order	4%	17%	11%	11%	11%

 Table 35. Very Important Factors in Choosing a Supplier for Specialty Food Manufacturers Categorized

 by Relationship with Principal Supplier

^a Overall percentages are calculated after excluding the two "other" supplier relationship responses and non-responses on one or both questions.

* Importance of this factor differs significantly across relationship categories at the 0.05 level.

** Importance of this factor differs significantly across relationship categories at the 0.01 level.

*** Importance of this factor differs significantly across relationship categories at the 0.001 level.

Benefits from and Obstacles to Sourcing from Identifiable Farmer

The last section of the survey focused on benefits from and obstacles to purchasing ingredients that can be traced back to a known farm or farms. Specialty food manufacturers that were able to identify at least one farm supplier for their key ingredient were asked about actual benefits and obstacles; 170 specialty food manufacturers responded to these questions. Specialty food manufacturers not able to identify at least one farm supplier were asked about **potential** benefits and obstacles; 65 specialty food manufacturers responded to these questions.

Table 36 presents information on the number of specialty food manufacturers that identified each actual or potential benefit type as a major benefit, with benefit types ordered by the combined frequency of being identified as a major benefit. Percentages are consistently higher for specialty food manufacturers that can identify at least one farm supplier. Quality assurance, trust, traceability, and reliability are all identified as major benefits by more than 80 percent of specialty food manufacturers that can identify at least one farm supplier. All these also rank high as potential benefits for specialty food manufacturers that are not able to identify at least one farm supplier. Differences between the two groups of specialty food manufacturers are largest for ease of communication, source of differentiation, flexibility in logistics, stronger marketing message, and reliability.

	Can Identify		Cannot Io	dentify		
	Farm Sup	plier(s)	Farm Supplier(s)			
Major Benefit	Frequency	Percent	Frequency	Percent	Difference	
Quality Assurance	151	89%	46	71%	18%	
Trust	147	86%	44	68%	19%	
Traceability	140	82%	44	68%	15%	
Reliability	140	82%	40	62%	21%	
Ease of Communication	123	72%	21	32%	40%	
Flexibility in Logistics	110	65%	26	40%	25%	
Source of Differentiation	104	61%	20	31%	30%	
Stronger Marketing Message	93	55%	22	34%	21%	
Certifications	80	47%	30	46%	1%	

Table 36. Major Benefits from Purchasing Ingredients that Can Be Traced Back to Farm(s)

Table 37 presents information on the number of specialty food manufacturers that identified each actual or potential obstacle type as major obstacles with obstacle types ordered by the combined frequency of being identified as a major obstacle. Percentages are consistently much lower for specialty food manufacturers that can identify at least one farm supplier. Inability to provide products year-round, cost, inability to meet food safety requirements, and inability to meet volume requirements are identified as major obstacles by at least 40 percent of specialty food manufacturers that cannot identify at least one farm supplier. With the exception of inability to meet volume requirements, these obstacles do not rank high for specialty food manufacturers that are able to identify at least one farm supplier. Rather, these specialty food manufacturers most frequently identify lack of trust and liability concerns as major obstacles.

		Can Identify Farm Supplier(s)		Cannot Identify Farm Supplier(s)	
Major Obstacle	Frequency	Percent	Frequency	Percent	Difference
Cost	28	16%	30	46%	30%
Inability to Meet Volume Requirements	22	13%	27	42%	29%
Inability to Provide Products Year-Round	20	12%	32	49%	37%
Unreliable Supply	20	12%	25	38%	27%
Lack of Flexibility in Logistics	9	5%	14	22%	16%
Lack of Trust	8	5%	23	35%	31%
Difficulty of Communication	7	4%	13	20%	16%
Poor Quality Assurance	6	4%	18	28%	24%
Lack of Certifications	6	4%	13	20%	16%
Inability to Meet Food Safety Standards	5	3%	29	45%	42%
Liability Concerns	4	2%	25	38%	36%

Table 37. Major Obstacles in Purchasing Ingredients that Can Be Traced Back to Farm(s)

Key Findings

Modes and scope of distribution:

- Specialty food manufactures (SFMs) distribute their products through diverse retail channels (Tables 4 and 5).
- About one-third of SFMs sell only locally while the others sell their products more broadly (Table 6).
- Processed meat products are most likely to be distributed locally (Table 7).
- Larger firms distribute their products over larger geographic areas while the actual types of channels vary in numerous ways across the annual sales classes (Tables 11 and 12).

Sourcing of key ingredients:

- How SFMs source their key ingredients varies by ingredient category with grains more likely to be purchased from distributors and co-ops (Table 14).
- While distributors are the most frequent principal suppliers, this source is followed closely by direct purchases from farms and by vertical integration. Almost half of the manufacturers reported that direct purchases from farms or their own farm represent their principal supplier (Table 15).
- Informal commitments were the most frequent form of relationship with principal suppliers but formal contracts, open market purchases and vertical integration are also common (Table 18).
- The largest SFMs are the least likely to be vertically integrated and the most likely to use formal contracts for their purchases. (Table 20).

- Most of the SFMs can identify at least one farm that supplies them with their key ingredient (Table 25) with purchasers of milk being the most likely and purchasers of grains the least likely (Table 26).
- More than half of the farms that supply these key ingredients are small or medium-sized (Table 28).

Very important factors in choosing suppliers and benefits and obstacles in purchasing from farms:

- Quality, food safety practices, year-round availability, price and local or regional sources were, in this order, the most important factors selected by SFMs (Table 32).
- The firms that could identify farm suppliers were much more likely to list ease of communication, source of differentiation, and flexibility in logistics as benefits of purchasing ingredients that can be traced back to know farms as compared to SFMs who cannot identify farms (these firms responded to a question about potential benefits) (Table 36).
- The firms that cannot identify farm suppliers cited the following obstacles much more frequently than firms that can identify farm suppliers inability to meet food safety standards, inability to provide products year-round, liability concerns, lack of trust, and cost (Table 37).

Overall, the survey responses indicate that the specialty food industry represents an attractive market outlet for small and medium-sized farms. Other project reports discuss how farmers can best take advantage of these opportunities.

Appendix A

Survey instrument: eligible

Beyond Fresh and Direct:

Specialty Food Manufacturer Ingredient Sourcing Survey

Q1. Please indicate whether or not your company produced each of the following broad product categories in 2014. A detailed description of each broad product category follows:

Dairy: Includes cheese, yogurt, kefir, butter, ice cream, other.

<u>Grain & baked goods</u>: Includes bread (loaf, ethnic, rolls), specialty flour, chips, pretzels, popcorn, bars, crackers, rice mixes, grains (quinoa, barley), cookies, cake, cereal, granola, baking mixes, pasta, other.

<u>Processed meats</u>: Includes sausage, ham, bacon, jerky, corned beef, salami, chorizo, pates, terrines, confit, crepinettes, smoked meats, and other processed meats.

<u>Processed fruit, vegetables, nuts and herbs</u>: Includes jam, jelly, preserves, pickles, olives, sauerkraut, beverages, seasoned or roasted nuts, salsa, hummus, fruit or nut candy, nut butters, seasoning mixes, sauces, soups, salad dressing, other.

	Produced in 2014	Not produced in 2014
Dairy (not including fluid milk)	O ₁	O ₂
Grain and/or baked goods	O_1	O_2
Processed meats	O_1	O_2
Processed fruit, vegetables, nuts, herbs	O ₁	O_2

Q2. How many distinct SKUs, if any, did your company market in 2014 in each of the four broad product categories?

	None	1 - 5 SKUs	6 - 20 SKUs	21 or more SKUs
Dairy	O_1	O_2	O_3	\bigcirc_4
Grain and/or baked goods	\bigcirc_{1}	\bigcirc_2	\bigcirc_3	\bigcirc_4
Processed meats	O_1	O_2	\bigcirc_{3}	\bigcirc_4
Processed fruit, vegetables, nuts, and herbs	O_1	O_2	\bigcirc_{3}	\bigcirc_4

Q3. Please indicate the modes of retail distribution for the product categories you produced in 2014. (Check all that apply)



- Q4. What was the geographical scope of your company's distribution for these product categories in 2014? (If more than one product category, please indicate broadest distribution)
 - \bigcirc_1 Smaller than state-wide (local) \bigcirc_2 State-wide \bigcirc_3 Multiple states (regional)
 - O₄ National
 - \bigcirc_{5} International

Q5. What was the total sales revenue from processed food products for your company in 2014?

- $\bigcirc_{1} \text{ Less than $100,000} \\ \bigcirc_{2} \text{ $100,001 $499,999} \\ \bigcirc \text{ $100,001 $499,999} \\ \odot \text{ $100,001 $499,$

- $\bigcirc_{4} $1,000,000 $4,999,999 \\ \bigcirc_{5} $5,000,000 $9,999,999 \\ \bigcirc_{6} $10,000,000 \text{ or more}$
- Q6. For each relevant ingredient category, please indicate your company's approximate 2014 purchase quantity (in pounds), purchase expenditure (in dollars), and number of suppliers for the product categories you produced in 2014. If your company supplies some or all of the ingredients from its own production, please treat as if these were purchases and include in the totals.

	Milk	Grain/Flour	Meat	Fruit/Veg/Nuts/Herbs
Total pounds purchased in 2014:	lbs.	lbs.	lbs.	lbs.
Total expenditures in dollars in 2014:	\$	\$	\$	\$
Total number of suppliers in 2014:				

- Q7. Among the ingredient categories in Q6 purchased to produce your company's products, which is the most important ingredient category? This may be the ingredient your company purchases in the greatest quantity, but it could be the ingredient that "defines" your set of products.
 - O_1 Milk

 \bigcirc_2 Grain/Flour

 \bigcirc_3 Meat

 \bigcirc_4 Fruit/Vegetable/Nuts/Herbs

Please refer to the most important ingredient category (as indicated in Q7) for the remaining questions.

Q7a. How long has your company been selling products produced with this most important ingredient category?

 \bigcirc_1 1 year or less

 O_2 More than 1 year to 5 years

 O_3 More than 5 years to 10 years

- \bigcirc_4 More than 10 years
- \bigcirc_{ς} Don't know

Q8. For your most important ingredient category, please indicate the types of suppliers your company used in 2014. (Check all that apply)

\Box_1 A farm owned by your company	
\square_2 Direct purchase from farmer(s)	
□_ ₃ Farmer cooperative	
□_₄ Distributor	
□_ ₅ Manufacturer	
□ ₆ Co-packer	
□_7 Other (describe	

Q9. In choosing the supplier(s) for your company's most important ingredient category, please rate the importance of each of the following factors.

)

	Very Important	Somewhat Important	Slightly Important	Not at all Important	Not Applicable/Not sure
Year-round availability	O_1	O_2	\bigcirc_{3}	$\bigcirc_{_4}$	O ₅
Price	\bigcirc_1	\bigcirc_2	\bigcirc_{3}	\bigcirc_4	O_5
Quality	\bigcirc_1	O_2	\bigcirc_{3}	$\bigcirc_{_{4}}$	O_{5}
Organic certification	\bigcirc_1	\bigcirc_2	$\bigcirc_{_{3}}$	$\bigcirc_{_4}$	\bigcirc_{5}
Non-GMO certification	O_1	O_2	\bigcirc_{3}	$\bigcirc_{_4}$	O_{5}
Gluten-free certification	O_1	O_2	\bigcirc_3	$\bigcirc_{_4}$	O ₅
Other certification	\bigcirc_1	O_2	$\bigcirc_{_{3}}$	$\bigcirc_{_4}$	O ₅
Food safety practices	O_1	O_2	\bigcirc_{3}	\bigcirc_4	O_{5}
Minimum quantity for order	O_1	O_2	\bigcirc_{3}	$\bigcirc_{_4}$	\bigcirc_{5}
Maximum quantity for order	O_1	O_2	\bigcirc_{3}	\bigcirc_4	O_{5}
Convenience of logistics	O_1	O_2	\bigcirc_{3}	$\bigcirc_{_4}$	O_{5}
"Stories" about the ingredients that can be used to market my products	O_1	O_2	O ₃	$\bigcirc_{_4}$	O ₅
Local or regional sources	O_1	\bigcirc_2	\bigcirc_{3}	\bigcirc_4	O ₅

Q10. Are there any other factors that influence choosing suppliers for your most important ingredient? (Describe)

Q11. Of those that supply your most important ingredient, which was the principal supplier to your company in 2014?

O_1	A farm owned by your company 🔶 GO TO QUESTION 16
	Direct purchase from farmer(s)
- O ₃	Farmer cooperative
$-O_4$	Distributor
$-O_{5}$	Manufacturer
	Co-packer
$-O_7$	Other (describe)

Q12. Which of the following best characterizes the nature of your relationship with your 2014 principal ingredient supplier?

\bigcirc_1 Formal contract	
\bigcirc_2 Informal commitment or "handshake agreement"	
\bigcirc_{3} None, purchases made on open market	
O₄ Other (describe)
Q13. How many years have you been buying from this supplier?	

- \bigcirc_1 1 year or less
- O_2 More than 1 year to 5 years
- O_3 More than 5 years to 10 years
- \bigcirc_4 More than 10 years
- O₅ Don't know
- Q14. In dollar terms, approximately what percentage of your company's most important ingredient category is purchased from this principal supplier?
 - $\bigcirc_1 1\% 25\%$ O₂² 26% - 50% O₃ 51% - 75%
 - O₄ 76% 100%
 - O₅ Don't know
- Q15. Still focusing on the ingredient category you indicated as most important to your business, are you able to identify the farm(s) that produced these ingredients?
 - \bigcirc_1 Yes, can identify at least one farm

 \bigcirc_1 No, cannot identify any farms \longrightarrow GO TO QUESTION 19 ON PAGE 7 \bigcirc_3 Don't know \longrightarrow GO TO QUESTION 19 ON PAGE 7

Q16. What is the predominant size of the farm(s) that produced your most important ingredient category?

 \bigcirc_1 Small or medium-sized (Annual gross sales of less than \$1,000,000) O_2 Large (Annual gross sales at \$1,000,000 or more) \bigcirc_3 Don't know

Q17. Please indicate whether each of the following is a benefit gained by your company by purchasing ingredients that can be traced back to this (these) farm(s).

	A major benefit	A minor benefit	Not a benefit	Not applicable/Not sure
Ease of communication	O_1	O_2	$\bigcirc_{_3}$	$\bigcirc_{_4}$
Quality assurance	O_1	\bigcirc_2	\bigcirc_{3}	\bigcirc_4
Flexibility in logistics	O_1	\bigcirc_2	\bigcirc_{3}	\bigcirc_4
Reliability	\bigcirc_1	\bigcirc_2	\bigcirc_{3}	\bigcirc_4
Source of differentiation for our products	O_1	O_2	\bigcirc_{3}	\bigcirc_4
Certifications (e.g., organic or non- GMO)	O_1	\bigcirc_2	\bigcirc_3	\bigcirc_4
Trust	O_1	\bigcirc_2	\bigcirc_{3}	\bigcirc_4
Traceability	O_{1}	O_2	$\bigcirc_{_3}$	\bigcirc_4
Stronger marketing message	$\bigcirc_{_{1}}$	O_2	\bigcirc_{3}	\bigcirc_4
Other (describe)	O_1	O_2	\bigcirc_{3}	$\bigcirc_{_4}$

Q18. Please indicate whether each of the following has been an obstacle faced by your company in purchasing ingredients that can be traced back to this (these) farm(s).

	A major obstacle	A minor obstacle	Not an obstacle	Not applicable/Not sure
Difficulty of communication	O_1	O_2	O ₃	\bigcirc_4
Poor quality assurance	O_1	O_2	O_3	\bigcirc_4
Lack of flexibility in logistics	O_1	O_2	\bigcirc_3	\bigcirc_4
Unreliable supply	\bigcirc_1	\bigcirc_2	\bigcirc_{3}	\bigcirc_4
Lack of certifications (e.g., organic or non-GMO)	O_1	O_2	\bigcirc_{3}	\bigcirc_4
Lack of trust	O_1	O_2	$\bigcirc_{_3}$	\bigcirc_4
Cost	\bigcirc_1	\bigcirc_2	\bigcirc_{3}	\bigcirc_4
Liability concerns	\bigcirc_1	\bigcirc_2	\bigcirc_{3}	\bigcirc_4
Inability to meet volume requirements	\bigcirc_1	O_2	\bigcirc_{3}	\bigcirc_4
Inability to provide products year-round	O_1	O_2	O_3	$\bigcirc_{_4}$
Inability to meet food safety standards	O_1	O_2	\bigcirc_{3}	\bigcirc_4
Other (describe)	O_1	O ₂	O_3	$\bigcirc_{_4}$

Since you are able to identify at least one farm, please skip questions 19 through 21 and go to question 22.

- Q19. How interested is your company in sourcing ingredients in this category that can be traced back to a farm or farms you can identify?
 - $\bigcirc_{_{1}}$ Very interested

 O_2^{-} Somewhat interested

 \bigcirc_{3} Not too interested

- \bigcirc_4 Not at all interested
- Q20. Although you are not able to directly identify the farm or farms that supply your most important ingredient category, please indicate which factors would be of potential benefit to your company by purchasing ingredients that can be traced back to a farm or farms you can identify.

	A potential major benefit	A potential minor benefit	Not a potential benefit	Not applicable/Not sure
Ease of communication	O_1	O_2	\bigcirc_{3}	$\bigcirc_{_4}$
Quality assurance	O_1	O_2	\bigcirc_{3}	\bigcirc_4
Flexibility in logistics	O_1	\bigcirc_2	\bigcirc_{3}	\bigcirc_4
Reliability	O_1	\bigcirc_2	\bigcirc_{3}	\bigcirc_4
Source of differentiation for our products	O_1	\bigcirc_2	\bigcirc_{3}	\bigcirc_4
Certifications (e.g., organic, non-GMO)	O_1	O_2	\bigcirc_3	$\bigcirc_{_4}$
Trust	O_1	O_2	\bigcirc_{3}	\bigcirc_4
Traceability	O_1	O_2	\bigcirc_{3}	\bigcirc_4
Stronger marketing message	O_1	O_2	\bigcirc_{3}	\bigcirc_4
Other (describe)	O_1	O_2	\bigcirc_3	\bigcirc_4

Q21. Please indicate which factors are obstacles or expected obstacles to purchasing ingredients that can be traced back to a farm or farms you can identify.

	A major obstacle	A minor obstacle	Not an obstacle	Not applicable/Not sure
Difficulty of communication	O_1	O_2	\bigcirc_3	\bigcirc_4
Poor quality assurance	O_1	O_2	O_3	\bigcirc_4
Lack of flexibility in logistics	O_1	\bigcirc_2	\bigcirc_3	\bigcirc_4
Unreliable supply	$\bigcirc_{_{1}}$	\bigcirc_2	\bigcirc_{3}	\bigcirc_4
Lack of certifications (e.g., organic, non- GMO)	O_1	O_2	\bigcirc_{3}	\bigcirc_4
Lack of trust	$\bigcirc_{_{1}}$	\bigcirc_2	$\bigcirc_{_3}$	\bigcirc_4
Cost	\bigcirc_{1}	\bigcirc_2	\bigcirc_{3}	\bigcirc_4
Liability concerns	$\bigcirc_{_{1}}$	\bigcirc_2	\bigcirc_{3}	\bigcirc_4
Inability to meet volume requirements	O_1	O_2	\bigcirc_{3}	\bigcirc_4
Inability to provide products year-round	O_1	O_2	O_3	$\bigcirc_{_4}$
Inability to meet food safety standards	O_1	O_2	O_3	\bigcirc_4
Other (describe)	O_1	O_2	O_3	O_4

Q22. What else would you like to say about purchasing ingredients for your specialty food products or about this questionnaire in general?

Thank you for your time! Please return your questionnaire in the postage-paid envelope provided.