UNIVERSITY OF VERMONT EXTENSION
CULTIVATING HEALTHY COMMUNITIES

Characteristics of Broiler Demand at Small Grocers 2012-2013

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Introduction

In the fall of 2012 University of Vermont Extension distributed a survey to independent grocers and cooperatively-owned grocery stores asking about chicken and egg demand in their stores with a focus on regionally-produced products. Follow-up phone interviews were conducted through the fall of 2013 to get additional feedback from the buyers in these stores. The goal of this work is to understand the demand for local poultry products and to also provide guidance for poultry farmers preparing to conduct their own market research. The research is not intended to propose a specific measure of the volume demanded on a regional basis. This project highlights how specific attributes and service expectations define poultry demand for the farm entrepreneurs who are most likely to access this segment of the market.

Surveys were sent to 40 independent grocers in VT, NH, ME and MA. The survey list was developed from the membership in the Neighboring Food Co-Op Association (which consists of 20 members throughout New England) and included additional independent grocery stores identified in previous farm product research. Twenty four stores were in Vermont and 16 were located in other states. Of the 20 independent grocers who responded, 19 were in Vermont and 1 was in Massachusetts.

How we Defined “local” Poultry Products

This survey did not prescribe a set definition for “local”. There are several definitions proposed by various state or federal agencies but we left the interpretation of “local” up to the retail buyers and asked them to share their own businesses definition of the term. This follows the key assumption that buyers have a practical definition that balances geographic parameters with procurement, supply chain logistics and consumer preferences applicable to their business. The 20 responding stores represent towns with a wide range of population levels. Six towns have a population of less than 2,000 people, 6 towns have a population of 2,000-4,999 people, 4 towns have 5,000-9,999 and 4 towns have over 10,000 people.[1]

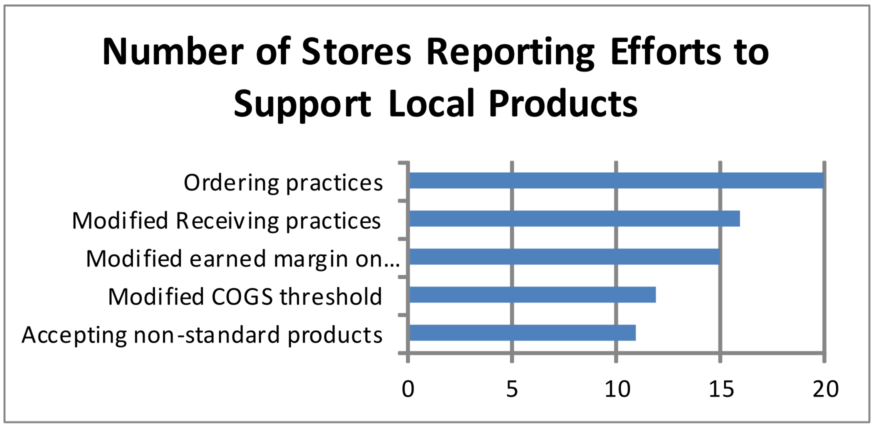
Store Efforts to Source Local Farm Products

All 20 responding stores indicated how they made efforts to support local farm products in their store (Figure 1). The most common accommodations were adjustments to ordering and receiving practices. Over half of the stores reported that they modify their margins, mark-ups or cost-of-goods sold thresholds to support local products in their store. Almost every store had a slightly different definition of local. Five out of 20 stores used a definition similar to the VT state definition, “…. "local," "locally grown," and any substantially similar term shall mean that the goods being advertised originated within Vermont or 30 miles of the place where they are sold…”[2]. The remaining stores indicated a range of guidelines including more stringent guidelines of 30 miles or fewer, strictly distance guidelines of 100 or 200 mile criteria and a mix of state and county boundaries.

[1] US Census, Retrieved online at: http://www.census.gov/popest/estimates.html

[2] Vermont Statute Title 9, Chapter 63, Subsection 2465a. “Definition of local and locally grown”

Figure 1: Number of Stores Reporting Efforts to Support Local Products



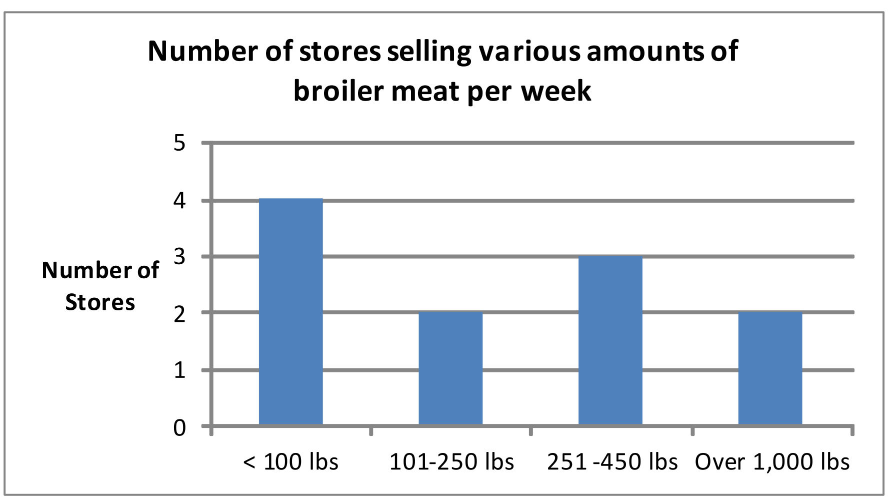
[3]

Market Potential

Eleven stores from throughout Vermont completed the broiler demand portion of the survey.

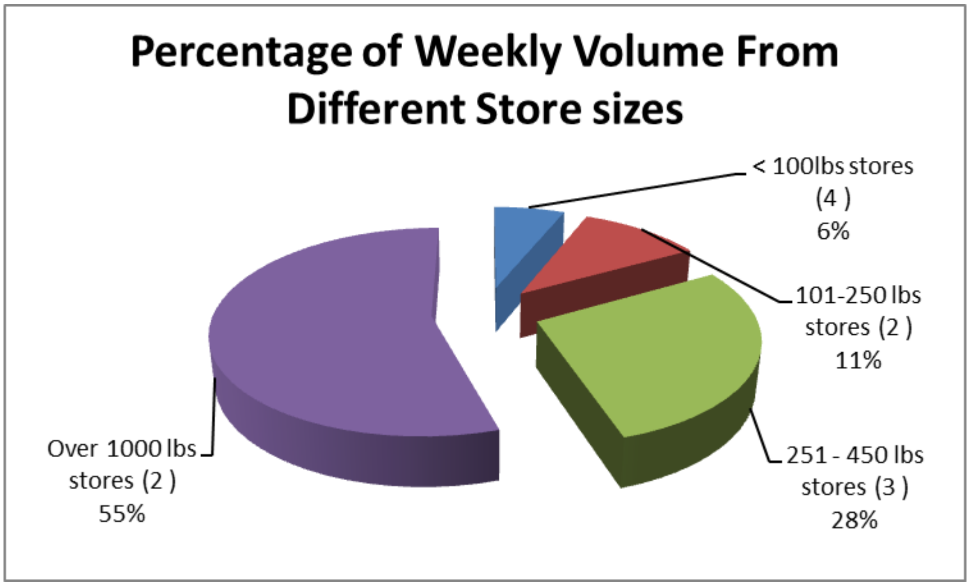
The responding stores sold 3,645 pounds per week, for an average of 331 pounds of chicken sold per store per week. Four stores sell less than 100 pounds per week, two sell between 100 to 250 pounds per week, three sell between 250 to 450 pounds per week, and two sell over 1,000 pounds per week (See figure 2). Over half of the total volume sold comes from only 2 out of 11 stores (see figure 2).

Figure 2: Number of stores selling different amounts of weekly chicken sales



[3] Five attributes were presented to managers that relate to common business issues dictating business to business sales: order/delivery practices, product standards and financial operations of the retailer.

Figure 3: Percentage of weekly sales volume for respondents in different sales groups



Ten stores responding to the survey source and sell local chicken. On average, locally produced chicken sales were 33% of all chicken sales across the ten stores but some stores were sourcing up to 100% of their chicken locally. Five of the respondents were sourcing over 80% of their chicken needs locally. This included one of the 1,000+ pounds per week stores. The total amount sourced locally was 2,123 pounds per week or an estimated annual demand of 110,396 pounds. Across these 11 stores this would equal an estimated 27,599 “theoretical” broilers per year (at average 4 lbs carcass weight per bird) if all broiler meat was sold in the form of whole birds. In reality, however, chicken production estimates must factor in the prevailing demand for part/pieces rather than whole chickens. Total production would need to be some factor higher than 27,599 broilers to accommodate for trim out and loss associated with parting birds to meet consumer preferences (see calculations in the Broiler Market Conclusion section).

When asked how much more local product could be sold annually respondents said that local chicken could grow by an additional 21% over current volume sold (see figure 4). For these stores that results in an increase of 23,183 pounds per year.

Pricing

Price information was only gathered for whole chickens. Pricing was based on what the stores were paying for the following types of attributes. Both the “local” and “organic” attribute command prices over $3.00 per pound. “Free-Range” chicken shows higher average prices compared to products labeled “pastured”.

Table 1: Prices Paid for Whole Birds Per Pound

Price Per Pound	Antibiotic Free	Hormone Free	Natural	Pastured	Free Range	Organic	Local
High	$ 3.28	$ 3.28	$ 3.00	$ 3.00	$ 3.28	$ 3.70	$ 4.50
Low	$ 2.10	$ 2.10	$ 2.00	$ 2.00	$ 2.60	$ 2.90	$ 2.60
Average	**$ 2.76**	**$ 2.76**	**2.40**	**2.56**	**$ 2.91**	**$ 3.24**	**$ 3.06**

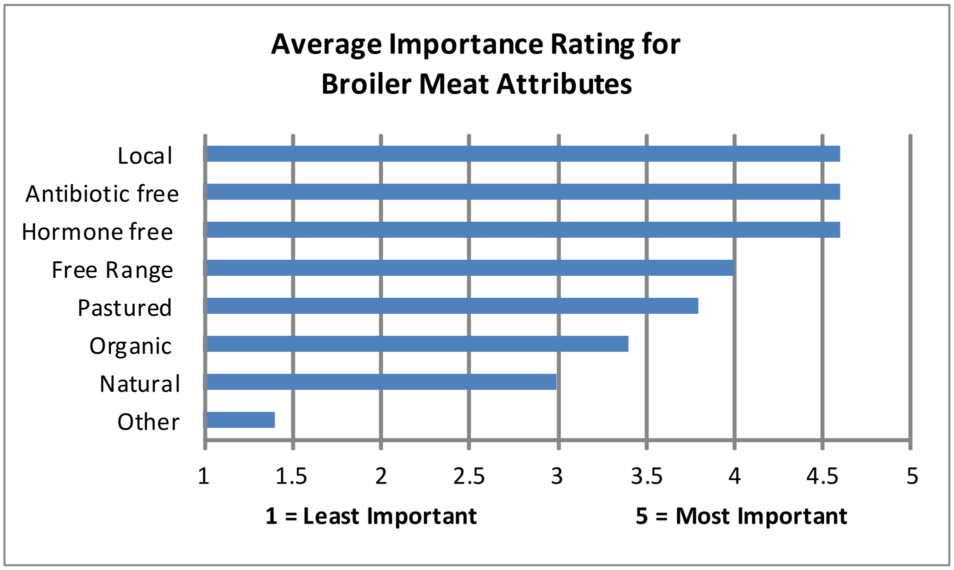
Poultry buyers were asked about price sensitivity and the potential for small, moderate or large changes in demand based on price changes. Seventy percent of stores sourcing local chicken responded that a small decrease in price would result in an increase in demand. Five out of 10 stores felt a *small decrease in price* would result in a small increase in demand and 2 of 10 stores felt a *small decrease in price* would result a large increase in demand. Those 2 stores were also among the largest sellers documented in this research.

The buyers participating in follow-up interviews further described the impact of price on overall demand. In general, buyers agreed that local poultry prices are perceived to be high and they limit demand. They explained that there is only a small population of consumers whose purchase behavior is not influenced by prices. There is also a small group of consumers who push for very specific production attributes, but they do not represent the majority of consumer feedback that the buyers in this research shared. The majority of consumer feedback via respondent buyers indicates that price premiums on local poultry limit their ability to access the products. A buyer summed it up with a bit of sarcasm to the local-vore movement and reference to the prices of retail chicken cuts, "We need frugal-vore budget cuts…in our economically-disadvantaged county."

Product Attributes Consumers Desire

Survey respondents indicated that the 3 most important attributes influencing consumers' decision-making on poultry purchases are; local, antibiotic-free and hormone-free. These three attributes received an equal ranking across all respondents. Lower-ranked attributes (after the top 3 listed above) are listed in decreasing order of importance: free range, pastured, organic, and natural (figure 4)

Figure 4: Average importance rating for broiler meat attributes



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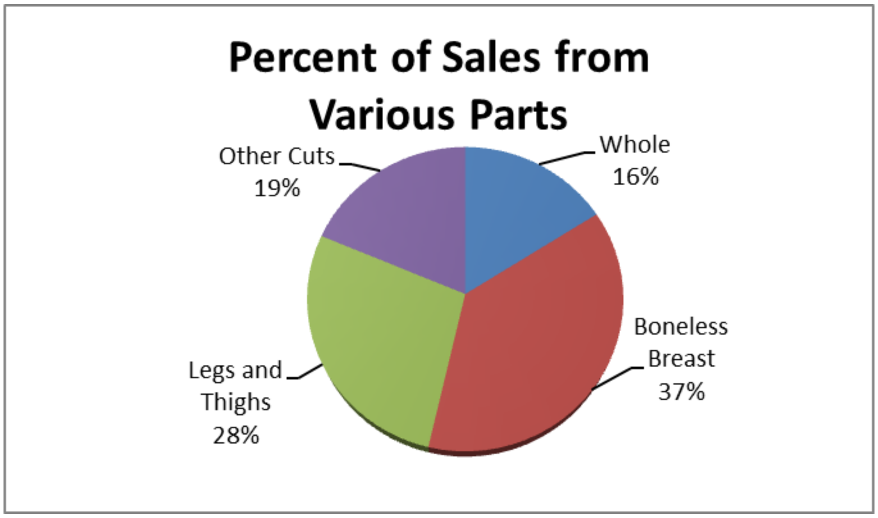
Parts and Pieces

The stores we surveyed indicated the percentage of their overall poultry sales attributed to various parts and pieces (figure 5). On average, the greatest percentage of sales comes from boneless breasts (39% of poultry sales per store) and the lowest percentage of sales comes from whole birds (16% of poultry sales per store). Sixty five percent of sales came from legs/thighs and boneless breasts. The survey did find two small stores (selling less than 100 pounds per week) that sold a much greater percentage of whole birds. These stores had an average of 35% of total chicken sales from whole birds. Stores were not asked about the “other cuts” category.

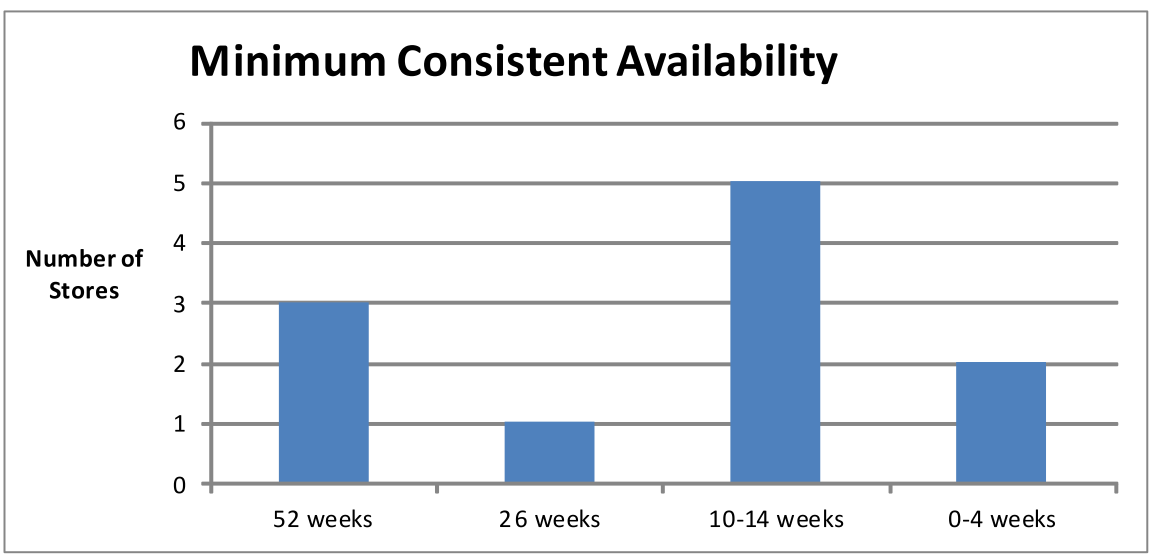
Figure 5: Percent of Store Chicken Sales from Various Parts



Product Availability

Retailers were asked what production volume and availability was needed to establish a relationship. Minimum product availability ranged widely from a minimum of 4 consecutive weeks to a maximum of 52 consecutive weeks. Product availability requirements did not relate to store size directly (figure 6). One of the 1000lb per week stores only required a 12 consecutive week consistency while another larger store required 52 weeks of availability. One of the 80lb per week stores required 52 week consistency.

Figure 6: Minimum number of weeks required to sell to stores



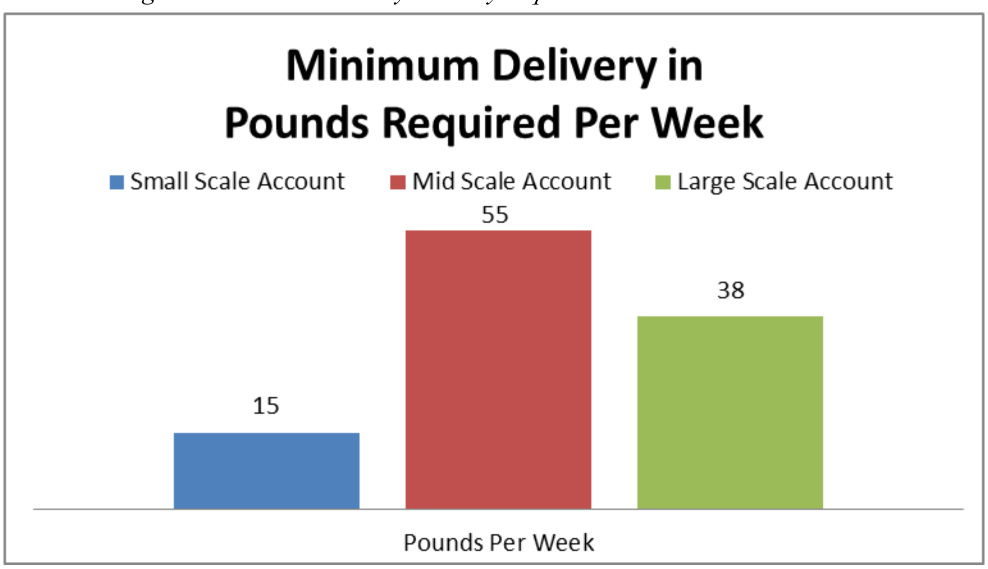
Weekly Supply

Buyers were asked about the minimum volume of weekly product delivery required to start a poultry selling relationship with their store. Total poultry sales were not a great predictor of the minimum weekly delivery volume required.

Five stores (45%) required a minimum of 20 pounds per week, 2 stores (18%) required a 50 pound minimum and 2 stores (18%) required a 260 pound minimum. Two stores had no minimum. Interestingly, the 1000 pound per week stores required only 25 and 50 pound minimums while stores in the 100-450 pound range required the 250 pound minimums.

Stores were put into three groups based to demonstrate how total chicken purchased relates to minimum delivery required[5] (figure 7).This research did not collect information about how many similar or differentiated chicken brands (farms) were carried by each store.

Figure 7: Minimum weekly delivery required to work with store

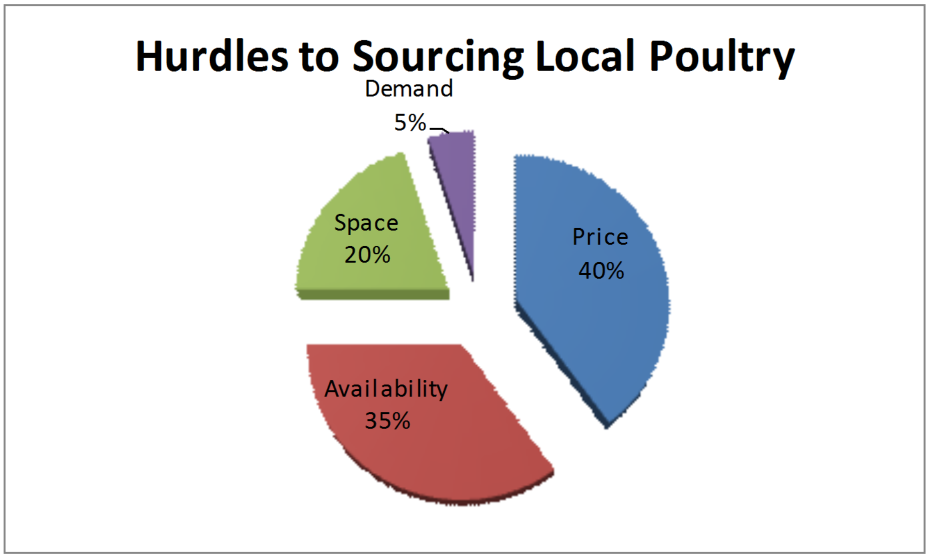


Hurdles to Sourcing Local Poultry

Price and availability were the most common hurdles to sourcing more local poultry for this group of buyers (figure 8).

[5] Account Size based on total weekly chicken sales: Small Scale Account< 100lbs , Mid-Scale 100-999 lbs, Large Scale>1,000 lbs

Figure 8: Hurdles to Sourcing Local Poultry



Broiler Market Conclusions

Responses to this survey and follow-up interviews paint a vivid picture of the tensions between supply and demand for poultry products in Vermont. The participating buyers all indicated accommodations they were making to facilitate the sourcing and sale of local farm products in their stores. We observed variability in the service requirements and expectations between different store-size segments, but these differences were not easily distinguished by store size alone. This highlights the need for producers to be able to take these considerations on a store-by-store basis as they research demand in this segment of the market.

Price is a major factor influencing buying decisions. Follow-up interviews generated numerous comments about prices. While many consumers provided feedback that they want organic chicken, non-GMO fed chicken or air cooled (vs. water cooled) carcasses, the buyers confirmed that their shoppers “are not willing to spend $30 per bird!” to get those attributes. The results of this research indicate that stores and consumers want more supply at lower prices. Such expectations are a commonality in a market economy, as prices go down demand is sure to rise. A unique situation arises as we recognize that local poultry demand has been built on the perceptions of small farms and niche marketing strategies. This tension is consistent with other sectors in VT agriculture today that are trying to expand sales while getting the message that the markets for premium products are shrinking or approaching saturation.

The project also illustrates the power of consumer perceptions as related to poultry products. Several surveys and interviews provide clear judgments on farms being “too big” or “too corporate”. Only a smaller number of surveys and interviews actually reference specific food safety, animal health/welfare or final poultry quality attributes. We also know that the marketplace is full of messaging on retail packaging and farm based promotion that presents products as “antibiotic free” or “produced without the use of added hormones”.

There is a clear opportunity to educate consumers that the United States Food and Drug Administration (FDA) banned the use of added hormones in broiler meat production in the 1950's and that there are legal requirements for poultry products to be free of any antibiotic residues based on required adherence to prescription withdrawal periods after medications are used.

The limited sample of potential buyers represented in our survey makes it difficult to model overall market demand for poultry, and such calculations were not the goal of this project. Given the entrepreneurial nature of local farm product distribution, this project chose to highlight the important elements of poultry products and the important factors contributing to the feasibility of selling to this specific segment of small grocers. Small farms are often introduced to wholesale activity through this easier-accessed segment of buyers. Given the figures from the eleven stores in this survey we calculated that the demand for local poultry might increase 21% or 23,183 pounds annually if prices were to remain the same. Since most chicken is purchased as retail parts/cuts and we know a certain percentage of the carcass is lost through the processing, we know that an estimated 5,795 birds (at 4 lbs each) is an underestimation of the production needed to satisfy this growth. We can make only the broadest conclusion the potential growth at current prices will be larger than 5,795 broilers and that processing of whole birds into parted products will be required.

Public information has shown that at least 3-4 new inspected poultry processing facilities have or will come into business in Vermont by summer of 2014. Farm business experts anticipate these facilities will seek to process at least 10,000 broilers annually or ~40,000 pounds for each facility to recoup the investments made. This additional supply dwarfs the potential growth if prices remain constant. The results of this survey also indicate the majority of buyers, and 2 of the larger volume independent grocers in VT, are sensitive to price. Farm-based poultry processors will be required to find alternative channels to sell premium priced products if cost reduction practices are not realized. The increased transaction costs of delivering to a larger number of small stores across a wider geography might be an issue further complicating any cost/price reduction goals. Seeking alternative channels may mean selling outside this region or finding ways of selling directly to customers. Compliance with federal meat processing inspection in order to sell across state lines will be a new issue that poultry producer/processors will prepare for. Expanding sales to focus on high volume accounts outside the region will also warrant new research on how "local" is defined by an audience potentially 150 or more miles away.

The Vermont Farm to Plate strategic plan[6] estimates that the statewide production gap between native and imported chicken at all venues to be as high as 10 million birds. These venues would include larger chain retailers and institutions that are expected to have far different service expectations, attribute preferences and price points compared to the research offered here. This research helps frame the context of chicken pricing, consumer preferences and potential market strategy for a particular segment of the market. We hope that poultry producers can utilize these results and the framework from this research to evaluate the business opportunities for all types of buyers.

[6] Farm to Plate Strategic Plan, VT Sustainable Jobs Fund, http://www.vsfj.org/project-details/5/farm-to-plate-initiative

Appendix A: Sample Market Research Questions for Retail Establishments

The following questions do not exactly match the complete list of questions included in the market research survey. The survey included questions for regional research aspects of this work versus the primary market research a single farm operator would pursue. These questions can be used as guide for interviews, e-mails or other means of collecting market information for the business.

Retail Establishment:

Does your business have a guiding principal or institutional goal to source regional products?
☐Yes ☐No ☐Not Sure

1. If yes, Please describe that institutional goal more specifically:

2. Indicate if your department makes effort to support regional/local products in the following categories.

Ordering Practices:

☐Yes ☐No ☐Not Sure Explain: ______________________________

Receiving Practices:
☐Yes ☐No ☐Not Sure Explain: ______________________________

Acceptance of Non-Standard Products:
☐Yes ☐No ☐Not Sure Explain: ______________________________

Changing your expected thresholds for the cost of goods you procure:
☐Yes ☐No ☐Not Sure Explain: ______________________________

Changing your earned margin/mark-up on certain products:
☐Yes ☐No ☐Not Sure Explain: ______________________________

3. Please explain any problems or constraints that you experience which prevents you from offering products from small or mid-size poultry farms in New England.

Please explain:

4. Please explain the opportunities or changes that would enable you to better offer products from small or mid-sized poultry farms in New England.

A) Working with Distributors:

B) Working Directly with Farm Producers:

5. What are your estimated gross sales for the entire meat department?
Daily sales: __________ Weekly sales: _________ Annual Sales: _______

6. Please indicate what percentage of total meat department sales can be assigned to the categories of products that you sell.

Product	Percentage	Product	Percentage	Product	Percentage
1☐ Chicken		5☐Lamb		9☐ Butcher Case	
2☐ Turkey		6☐ Frozen Meats		10☐Other	
3☐ Beef		7☐Seafood		11☐Other	
4☐ Pork		8☐ Processed Product (hot dogs, cold cuts, bacon)		12☐Other	
				TOTAL	**100%**

Chicken: Products and Prices

7. What are your estimated gross sales for chicken products for these time periods?
   Daily sales: __________ Weekly sales: _________ Annual sales: ________

8. Indicate what percentage of your weekly chicken sales can be assigned to the top three products? If possible, also include the pounds per week that are assigned to these categories.
   (Example: fresh whole birds = 10%, boneless breast = 40%, bone-in legs = 15%, boneless thighs = 20% ,other = 15%)

Product	Percentage	Pounds per Week	Product	Percentage	Pounds per Week
1☐			3☐		
2☐			4☐ all others	(add this to #1,#2, #3 to equal 100%)	
			TOTAL	100%	

9. With overall chicken sales, what percentage of sales can be assigned to the following attributes:

Attribute	Percentage
1☐ Organic	
2☐ Hormone and/or Antibiotic Free	
3☐ All other	
TOTAL	100%

10. With overall chicken sales, what percentage can be assigned to the “LOCAL” attribute:

Attribute	Percentage
1☐ Local producer within 50 miles	
2☐ All other	
TOTAL	100%

11. Indicate if sales trends/demand for the following attributes is increasing, declining or staying the same.

Attribute	Increasing	Decreasing	The Same	Unsure
Organic	1☐	2☐	3☐	4☐
Hormone and/or Antibiotic Free	1☐	2☐	3☐	4☐
Local (less than 50 miles)	1☐	2☐	3☐	4☐
Cage Free/Free Range	1☐	2☐	3☐	4☐
Other: (*please indicate)*	1☐	2☐	3☐	4☐

12. Using the same categories as Question #4, please indicate the **estimated prices that you pay to procure** these products for your department. Please indicate if your prices reflect a certain attribute (local, hormone free, organic, etc…)

Product	Special Attribute	Price per Pound	Product	Special Attribute	Price per Pound
1☐			3☐		
2☐			4☐		

Chicken: Service and Delivery

13. How many days per week would your ideal chicken meat provider/distributor deliver to your business? _________

14. Ideally, how many consistent weeks of available product do you need to offer a product before any planned interruption or temporary break from availability is experienced? ____

15. Indicate the minimum amount of product a single chicken producer or distributor would need to start a selling relationship to you.

Turkey (non-holiday)

Questions 12-13 are asking about normal, ***non-holiday,*** *time periods of the year.*

16. What are your estimated gross sales for turkey products during non-holiday seasons?
    Daily sales: _________ Weekly sales: ________

17. Indicate what percentage of your total turkey sales can be assigned to your top three selling products?
    (Example: fresh whole birds = 10%, frozen whole birds = 50% ground = 40%)

Product	Percentage	Product	Percentage
1☐		3☐	
2☐		4☐ all others combined	(add this to #1,#2, #3 to equal 100%)
		TOTAL	**100%**

Turkey Products (holiday sales)

18. How many weeks within a 52 week year would you identify as "HOLIDAY" shopping weeks. These are weeks where you experience a large change in the volume of turkey product sales.
    Holiday Weeks: ________

19. What are your estimated gross sales for turkey products during HOLIDAY weeks?
Daily sales: __________ Weekly sales: _________

20. Indicate what percentage of your total turkey sales can be assigned to certain products?
(Example: fresh whole birds = 10%, frozen whole birds = 50% ground = 40%)

Product	Percentage	Product	Percentage
1☐		4☐	
2☐		5☐	(add this to #1,#2, #3 to equal 100%)
3☐		6☐ all other	
		TOTAL	100%

21. Using the same categories as Question #16, please indicate the **estimated prices that you pay to procure** these products for your department. Please indicate if your prices reflect a certain attribute (local, hormone free, free range, etc…)

Product	Special Attribute	Price per Pound	Product	Special Attribute	Price per Pound
1☐			3☐		
2☐			4☐		