Fees and Feasibility:
Requirements and Costs to Small Regional Producers Looking to Sell Value-Added Food Products through Various Supply Chains

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Judith Ellen Brienza

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This is to certify that I have examined this copy of a master's thesis by

Judith Ellen Brienza

and have found that it is complete and satisfactory in all respects
and that any and all revisions required by the final
examining committee have been made.

Robert P. King
(Name of Faculty Advisor)

Robert P. King
(Signature of Faculty Advisor)

August 20, 2001
(Date)

Graduate School

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CHAPTER 1
Introduction and Methodology

1.1 Introduction

Across the United States, there is a growing interest in building regional value-added food systems integrating – or reintegrating – smaller producers into a food supply chain increasingly dominated by larger producers. Farmers, consumers and food retailers have all expressed interest in decreasing the distance between the farmer and consumer. At the same time, various organizations and programs have been charged with establishing market linkages between loose grouping of producers and potential customers at the retail, direct-marketing and institutional (foodservice) levels (Feenstra, 1997).

There have been numerous studies examining consumer demand for regional-branded foodstuffs at various points of purchase, e.g. direct marketing, farmers' markets, and retail markets. Ross, et al. noted that consumer surveys undertaken in Maine, Massachusetts, New Jersey, California and Minnesota showed that large majorities of those surveyed preferred products produced in their state. However, the study also noted that convenience was an important component in the decision to purchase regional products, as few consumers would go out of their way to buy regional products (Ross, et al., 1999). Anecdotal evidence also exists of food retailer and foodservice distributor interest in local/regional food products. Retailers and foodservice operators observe that consumer preference for local/regional products as a way to support the local/regional economy is a prime purchase motivator. Retailers have responded by utilizing state-

sponsored promotions like "Minnesota Grown," and seeking out regional-branded products as a way to strengthen the links between consumer, retailer and food source (Vosburgh, 2000).

Independent food retailers are finding that regional-branded products can help them differentiate themselves from larger chains and help build customer loyalty. (Harper, 2000). Regional products are also believed to contribute to increased foot traffic in retail stores that promote their portfolio of local/regional products. Further, regional products brought to market by smaller producers also help create a greater diversity of new product offerings than large food manufacturers are capable or willing to develop (Lo Bosco, 1999).

From the producer perspective, the growth of New Generation Cooperatives (NGCs) in the Midwest United States beginning in the mid-1990's demonstrates farmer interest in getting closer to the end-consumer of agricultural commodities via production of value-added food products. By turning wheat into pasta, corn into ethanol or hogs into pork chops, NGCs are able to gain a larger share of the food dollar, capturing profit otherwise made by food marketing companies which buy lower-value raw commodities from farmers and market processed food products all the way to the consumer. The birth and growth of NGCs signaled to other farmers that moving up the food supply chain was both possible and could lead to a rural renaissance by revitalizing farm-service towns and preserving the rural image in a branded food label (Brienza, 1996).

Westgren (1999) examined a highly successful model for contra-industrial production and marketing of poultry in France. The Label Rouge system Westgren investigated represents the gold standard for localized production and marketing

schemes. The result is a tightly coordinated collaboration between the public and private sectors, marked by high levels of trust among farmers, processors and marketers, with a credible quality-oriented brand label that commands up to 100% price premiums in the marketplace (Westgren, 1999).

It is not likely that the same level of public-private partnership could exist in the US. Yet there is a growing desire among regional producers and consumers in the US generally to foster profitable, collaborative alternative markets for regional agricultural products. However, there is a gap of information available by which producers can assess their alternatives among the various supply chains (e.g. retail outlets, foodservice, E-retailing).

For example, in Southeast Minnesota organizations such as the Midwest Food Alliance and the Land Stewardship Project are working to establishing a regional sustainable-production label and serving a clearinghouse function with respect to linking interested customers with available producers. However, no comprehensive information exists by which producers can holistically assess the costs and constraints associated with participating in each of the available supply chains. This research paper addresses this gap, specifically for Southeast Minnesota producers, but with general relevance for small regional producers in the US.

The retailers, retail food distributors, brokers, foodservice distributors and non-commercial foodservice institutions interviewed as part of this study all reported a need for a more informed base of small producers. Understanding the general requirements and accompanying costs for marketing a value-added food product before approaching a category buyer at a retail food store or foodservice distributor is considered of high

importance to these study participants. Indeed, as more than one study participant reported, one subtle result of food industry consolidation has been to leave less time for category managers to personally educate and foster promising small producers. However, these same category managers remain willing to give a small, regional producer a chance to succeed if the product is right.

The overall objective for the research was to establish a methodology by which local/regional producers can assess alternatives for participating in various supply chains. The research identifies general producer requirements for participating in various supply chains (e.g. promotion, distribution). Further, the research provides a general template by which potential value-added agricultural producers can assess the costs for meeting those requirements and make decisions as to whether or a not participation in a particular supply chain would be feasible and profitable.

1.2 Methodology

The focus of this study is on the requirements for small Southeast Minnesota-based producers' to participate in various food supply chains, specifically: retail food stores, retail food distributors, E-retail, foodservice distributors and direct sales to institutions/restaurants. The study did not seek to measure demand for any potential products, nor generate any demand on behalf of Southeast Minnesota small, regional producers.

Approach

A case study methodology was utilized to identify requirements small, regional producers need to meet in order to participate in various marketing outlets. A case study approach was selected over other approaches because of the limited sample of unrelated

food retailers, retail food distributors, E-retail, foodservice distributors and institutions/restaurants in the targeted geographic area incorporating Southeastern Minnesota, Rochester, MN and the Twin Cities (Minneapolis/St. Paul) metro-area. Further, the case study approach is a common method employed in social science as a way to assess organizational and managerial processes. This study utilized a multiple-case, embedded strategy as outlined by Yin. The study was multiple-case in that it looked at multiple, differentiated, distribution chains, with the investigation approach replicated for each chain. A number of subunits were examined within each chain, such that the chain characteristics and requirements are embedded subunits within the larger unit of study (the supply chain itself) (Yin, 1994).

Study Participants

Study participants were identified through contacts within the Food Industry Center at the University of Minnesota and suggestions from regional producers and customers already participating in various supply chains. Phone calls were placed to identify the appropriate contact person at each prospective participant firm, e.g. a person in a decision-making role regarding specialty foods. Specialty foods in this study were defined as value-added food products that carry some level of differentiation (including, inter alia, regionality, natural, organic, high-end gourmet) that would generally not be considered a so-called national-brand, e.g. Campbell's Soup, Haagen-Dazs Ice Cream, Hormel hams).

An initial letter was faxed or mailed to prospective participants outlining the nature of the study, the relevance of their firm's participation, a general overview of the type of questions to be asked, and a request for the individual to participate in the study

as a representative of their firm. A follow-up phone call was made to secure individuals' participation in the study, and to schedule a 45 minute-1 hour in-person interview. Of the 15 firms approached for participation, 13 agreed to participate.

Participants were given the option as to whether or not their firm would be identified within the study, with the premise that if one firm (regardless of supply chain) declined to be identified, than all firms would remain anonymous within the body of the study. At least one firm did decline to be identified, therefore, no firm is specifically identified within this study.

The three retail participants represent a national chain, a Minneapolis-St. Paul metro regional chain, and a more rural, regional chain. The three retail distributors represent a large national distributor of specialty foods, and two medium-sized, regional (Minnesota/Wisconsin/Iowa) distributors of specialty foods. The E-retail participant operates in the Twin-Cities metro region. The two foodservice distributors represent regional operating divisions of national foodservice distributors. The two institutional/restaurant participants represent Southeast Minnesota regional firms. One specialty food broker was interviewed.

Interview Protocol

The interviews followed a generally uniform set of open-ended questions designed to identify business practices and product requirements that smaller regional producers should adopt to become better aligned with industry best practices.

Questions focused on the individual firm's strategy for regional food products (if any), the decision making process with regard to introducing new product lines and suppliers, supplier requirements (e.g. product and producer quality certification, product

mix, packaging and delivery), and other related information. Participants were asked to outline requirements using the assumption that the potential new product was highly desirable, such that any flexibility in identified requirements would be noted in that context. All interviews were conducted in-person at the participating firm.

Questions were established by conducting a review of existing food supply chain literature and establishing a range of information necessary for producers to understand when making decisions about participating in various supply chains. The set of questions was uniform for each supply chain. [1] Questions fell within two categories: strategic requirements and tactical requirements. They are summarized in Table 1.1

Table 1.1 Questions for Supply Chain Participant Interviews

STRATEGIC	TACTICAL
Existence of Defined Regional Product Strategy	General Service Requirements, including:
How is Buying Decision Made Re; New Product Do Entrance Fees Exist (e.g. free case per store)?	• Expectations around product availability
	• Is a UPC required?
What are expected components of a product promotional program	• Invoicing/Terms
Packaging (marketing) expectations	• Price Movement (+/-)
What are the components of/expectations from an effective sales presentation sales presentation	• What is the order method employed by firm (frequency, transmission (fax, electronic))
	• Lead Time
	• Transportation/Delivery
	• Volume (typical order volumes)
	• Case Size
	• Pallet Requirements (if any)
	• Is storage available for larger orders
	• Is product liability insurance (Hold-Harmless insurance) required?
	• Is there a third-party quality inspection of processing facility?
	• Credit Check/D&B requirements
	• Supplier/product success measurement criteria

[1] The questionnaire was reviewed for relevance and coherence by Professor Robert King at the University of Minnesota, Department of Applied Economics, and Jonathan Seltzer an industry consultant.

Information provided in each interview was transcribed onto a standard table of requirements listed by participant, which was then summarized into a summary table to protect the identity of the participants. Table components follow along the same categories as the interview questionnaire. Responses were in most cases transferred verbatim onto the table, except in cases where a verbatim transcription would compromise the anonymity of the participant. In those cases, specific information was generalized to convey the necessary information without revealing the identity of the participant providing the information.

Cost Analysis and Application

For the purposes of the general supply chain cost comparison, specific costs are not identified, as this portion of the study does not seek to answer specific product questions. Rather, it addresses the general requirements and level of difficulty a small producer should anticipate when deciding between various supply chains. However, a specific application of these findings was undertaken using Farming With Nature (FWN), a small group of pork producers based in Southeast Minnesota, as a case study. FWN is a cooperative of diversified small family farmers[2] using sustainable farming and livestock rearing techniques. FWN is interested, as are many smaller farmers, in capturing a larger portion of the food dollar whilst supporting a contra-industrial agricultural model. Building a regional food identity, tied to the Southeast Minnesota region, is a secondary motivation for FWN, though certainly valued as a point of differentiation for its potential line of products. It should also be noted that the members of FWN have a stated desire to remain small producers. That is, the family farmers comprising FWN look to the

[2] Small family farms are defined as farms with gross sales less than US$250,000 annual, as outlined in the USDA/ERS Agricultural Resource Management Study, 1997.

cooperative as a mechanism by which to more effectively market their products in order to spend more time on the farm rather than at numerous farmers markets selling product. These marketing ambitions, however, do not include investing in significant increases in livestock production by any one FWN producer, although expanding the cooperative to include additional small producers is considered to be a possibility. Therefore, the profitability analysis presented here reflects this self-imposed constraint, represented by limited production capabilities and thus sales volume.

FWN producers are interested in collectively marketing value-added natural pork and beef products. This group was selected as a good candidate for an application of the study's findings because it was poised to make key decisions regarding which supply chain to pursue in its effort to promote any potential value-added pork products. In order to make an informed decision, FWN first needed to identify the requirements associated with each potential supply chain, estimate the cost of meeting those requirements, and ultimately make a decision as to which supply chain(s) and product(s) to pursue. FWN was also at a decision point regarding the degree of internal cooperation required to meet supply chain requirements, including the need for any coordinating institution and/or mechanisms.

In the application phase of the study, the costs of meeting each of the requirements outlined in the supply chain tables were researched and a cost model was built using an Excel spreadsheet format. Researching specific requirement costs consisted of, in some cases, soliciting cost estimates from appropriate suppliers (e.g. packaging, processing, transport) and, in cases where more than one estimate was solicited, taking the average of each of the estimates for a working estimate. Costs were separated into

fixed firm costs and variable per unit costs, using an existing product, wild rice bratwurst, as the product example.

CHAPTER 2
Identifying Supply Chain Requirements

2.1 Overview of the Retail Supply Chain

The retail supply chain is a multi-layered chain with multiple points of entry based on the particular requirements of individual food retailers and the capabilities of an individual producer. In certain cases, where a retailer can accommodate a direct store delivery (DSD) from a producer, the retail supply chain can be very abbreviated, incorporating the value-added processor (in this case, the farmer is also the processor, either by out-sourcing production or by owning the production facility) straight to the retail store(s). Figure 2.1 shows this chain.

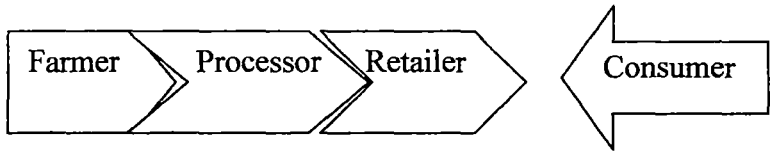

Figure 2.1 Supply chain diagram showing producer sales direct to retail stores.

More typical is the case where a retail store or chain utilizes a third-party retail distributor that manages the delivery of products on an aggregated basis. Retail stores or chains generally purchase from between one and three distributors, with one distributor meeting the great majority of items (e.g. 80 percent) while purchasing the remaining items from the other one or two secondary distributors. In the latter case (or the remaining 20 percent) these items generally constitute specialty food items, defined as value-added food products that carry some level of differentiation (including, inter alia,

regionality, natural, organic, high-end gourmet) that would generally not be considered a so-called national brand. Figure 2.2 shows this chain.

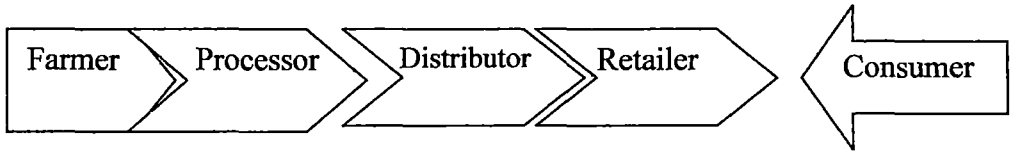

Figure 2.2 Supply chain diagram showing producer sales to a retail food distributor.

In many cases, a broker will also be present, hired by the producing firm to act as a sales agent to either a distributor and/or a retailer. A broker generally handles product sales, orders and billing on behalf of a producer. In cases where a broker is utilized, a typical supply chain would then expand to look like the one depicted in Figure 2.3.

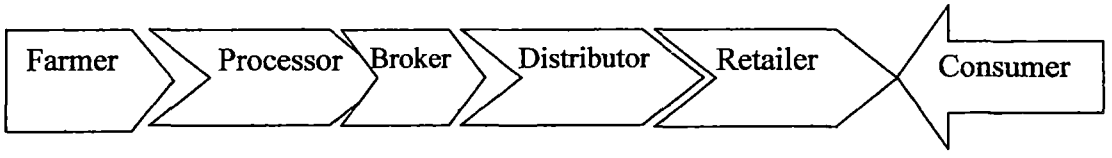

Figure 2.3 Supply chain diagram showing the introduction of a broker into the sales stream.

What is important to remember for small, regional producers (hereafter producers) evaluating options for participation in the retail supply chain is that each link in the supply chain accounts for a certain percentage of the food dollar ultimately paid by the consumer. Since the producer's objective for moving from a supplier of raw inputs to the manufacturing of value-added food products is to capture a larger portion of the food dollar, it follows that the closer a producer gets to the consumer, the larger the share of the food dollar realized by the producer.

Taking again the third supply chain example shown above, the percentage share typically enjoyed by each of the links in the retail food supply chain is depicted in Figure 2.4.

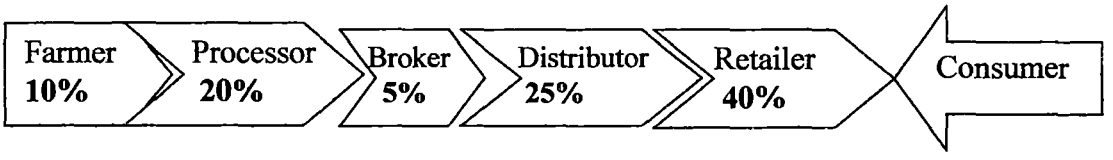

Figure 2.4 Percentage of US food dollar captured by each of the functional links in the food supply chain (USDA, 2000a).

By examining each of the links between the producer and the consumer, the costs associated with capturing the respective portions of the food dollar can be assessed. For example, while bypassing a distributor and working on a Direct Store Delivery (DSD) basis may allow the producer to capture a larger portion of the food dollar, the costs to a small producer of meeting the requirements for doing so could outweigh the additional revenue received.

Producers should have a general understanding of the range of margins that might be applied to a particular product once sold to a retail distributor or retailer. This information is important when pricing a product for sale in order to keep a product price competitive once on the retail shelf. Table 2.1 lists some typical margins by category.

For example, a producer sells a frozen dessert product to a retail food distributor for a price of $2.50/each ($30/case). The retail food distributor then charges the retail food store $3/each ($36/case) for the product. The retailer then sells the product to the consumer for $3.99/each. The retail price of $3.99 represents a 59.6 percent increase over the original producer price.

Table 2. 1 Typical Product Margins Applied by Retail Food Distributors and Retail Stores For Selected Categories

Category	Distributor Margin	Retail Store Margin (% above wholesale price)
Dry Grocery	21%	30-33%
Frozen	21%	30-33%
Dairy	--	30-40% (USDA/ERS, 2000b)
Meat (Pork)	32%	25% (USDA/ERS, 2000b)[3]
Bulk	60%	50-70%

While a producer may balk at the difference between the price at which he or she sells a product to a retail distributor or retailer and the price ultimately charged to the consumer, the margins should be considered within the context of the costs associated with the distribution and marketing roles assumed by these links in the supply chain. Essentially, the producer should compare these margins to the costs associated with outsourcing functions such as sales, order management, and broad product distribution versus managing these functions internally.

These costs can be more broadly understood as the marketing costs associated with getting a product from the farm to the consumer. These costs account for 80 percent of the US food dollar while the farm value of goods accounts for the other 20 percent (USDA/ERS, 2000b). Table 2.2 shows a breakdown of marketing costs by expense category.

[3] Based on year 2000 average for pork.

Table 2.2 Components of the US Marketing Dollar

Component	Percent or cents
Labor	39
Packaging	8
Transportation	4
Energy	3.5
Profits	4
Advertising	4
Depreciation	3.5
Rent	4
Interest	2.5
Repairs	1.5
Business taxes	3.5
Other costs	2.5
Total	80

Source: USDA/ERS, 2000b.

The producer's costs for accessing broader markets are incorporated in the margin applied by the food retail distributor and the food retailer, and are likely shown in the marketing bill above as part of the labor component. These costs include sales costs (including calls on headquarters and stores, communications about new products) and operations costs (adding a new product to the distribution system, stocking) (Weiss, 1996).

The following sections detail the requirements reported for each of the supply chains under consideration. It should be noted that the requirements outlined for the retail food distributor, e-retail, foodservice and institutional/restaurant chains follow largely along the same lines as those described for the retail direct chain. This chain is described first. Therefore, for a general outline of requirements the reader is advised to read the retail direct section in detail, and the other chain reports as relevant to specific interest. Specific chain requirements are summarized at the end of each chain section, and all chain requirements are summarized on a master table at the end of this chapter.

2.2 Supply Chain Requirements

2.2.1 Selling Directly To A Food Retailer

This section deals with the specific requirements of getting products into retail food outlets without going through a retail food distributor. The retailers interviewed for this study reported that while regional products are seen as desirable in terms of further product differentiation, there is no defined strategy in place by which regional product offerings are being pursued or incorporated into the retailer SKU portfolio.

The interviews revealed two important points regarding the protocol by which a decision to carry a product in the retail store is made. First, retailers reported a preference for working through an existing distributor to acquire a product. This reflects a desire to streamline supplier management and reduce transaction costs associated with ordering, receiving and billing. Second, decisions to add a new product to the retail shelf are made by a centralized buying team, with the first point of contact the category buyer, who then pleads the case for carrying a new product to a cross-functional buying team. This centralized approach was reported by each of the retailers interviewed. That is, regardless of whether the retailer is a smaller, regional chain, mid-sized metro chain, or national chain, some form of buying team approach, and each of its functional representatives, exists. However, for a single retail store not part of a chain, these functions would typically be handled by the store manager or category manager. A typical retail purchase decision follows the path shown in Figure 2.5.

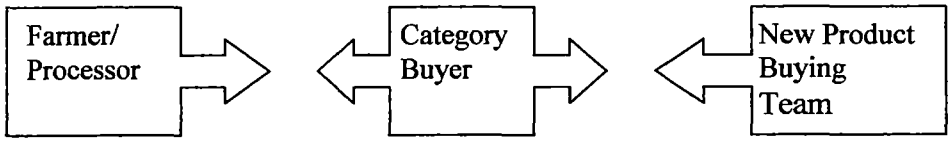

Figure 2.5 Decision path for new product introduction.

The producer or producer group should approach to the retail contact as a cohesive unit. This means the group's representative should be in a position to speak on behalf of all members of a cooperative (if producer is part of such a group). Contact should be made only after the basic requirements for participation in the retail food supply chain (see below) have been reviewed and assessed as feasible by the producer. The specific retailer can be discussed at the time of the producers' presentation. If the producer or producer group is handling sales independently (e.g. not utilizing a broker) the appropriate retail contact can be identified by calling or visiting the local store of the targeted retailer and asking, assuming the process is centralized, for the relevant category contact. An introductory letter can be sent to this contact person, then follow-up phone calls made in an effort to secure an appointment at which a presentation will be made. Polite persistence, as one retail category buyer stated, is important when attempting to get an appointment with a category buyer: thus, the producer must be prepared to make repeated efforts at getting an initial presentation appointment.

The category buyer is the liaison between the producer and the new product buying team. The category buyer is responsible for making a case to an internal team for introducing the producer's product. The producer must make it as easy as possible for the category buyer to champion a potential new product to the buying team by building a relationship with the buyer and building the buyer's confidence in both product and producer through reliable information and well-thought out promotional plans.

The new product buying team is a cross-functional body that meets periodically (e.g. every other week) to consider potential product offerings. The team is usually

comprised of a category manager (an individual responsible for the profit/loss of a retail category), a sales manager, a marketing representative, and in certain cases a representative for store operations. The category buyer is charged with bringing new product ideas in front of the buying team and "selling" the product internally. Once the team issues a decision on a product, the category buyer informs the producer of the team's decision. If the team decides to carry a product, the category buyer will finalize the specific cost, quality and service requirements with the farmer/producer.

Based on interviews with food retailers, producer and product requirements were identified for selling products in a retail store.[4] The requirements are divided into two distinct categories: strategic and tactical. The former address requirements that need to be met by the producer in to order to convince a category buyer and subsequently the new product buying team to add a new product to an already crowded store shelf. The tactical requirements, referred to within this study as general service requirements, are those that must be in place to ensure that a product will be able to move through the retail distribution system.

2.2.1.a Strategic Requirements

Sales Presentation

The importance of a strong product presentation was heavily emphasized by the retail contacts interviewed for this study. Producer knowledge of the category in which their product will compete was identified as extremely important. While smaller, regional producers are not expected to have access to, or the resources to invest in, highly

[4] Interviews were conducted separately with two specialty foods category managers, and one chain owner regarding retailer requirements.

sophisticated market data (such as Nielson Data) some understanding of the local, regional and national market in which a product will compete is expected.[5]

Producers are expected to clearly communicate how their product differentiates itself from similar products already on the store shelf. While differentiation via regionality (e.g. "Direct from Southeast Minnesota") is important, it must be complemented by additional points of difference along cost and quality lines. If funds are available, the producer might consider hiring a market research firm to conduct consumer panels regarding the product as a means to substantiate and benchmark its product versus others in the category.

Study participants noted a strong preference for viewing a mock-up (package sample) of the product at the sales presentation in order to give the category buyer a good idea of how the product would look on-shelf. The producer should be prepared to leave the mock-up with the buyer for use at the new product team presentation, and/or as a future reminder to the buyer of the product. Product samples for tasting at the presentation may also be possible. The producer should arrange with the buyer in advance if a product requires more preparation than opening a jar or box in order to avoid wasting a buyer's valuable time trying to cook or otherwise prepare samples during the presentation.

Product Promotion Plan

At the time of the sales presentation, the producer should be prepared to discuss plans for supporting the product once it is on the retail shelf. The plan should be

[5] In certain cases, Minnesota Department of Agriculture (MDA) grant-funds are available for marketing research under the MDA-administered Value-Added Agricultural Cooperative Grant Program and related programs. For more information, go to <www.mgo.umn.edu/opportunity/>).

reasonable and achievable for a small, regional producer. The producer should have an overall promotional budget established geared toward achieving an overall sales objective. For example, the producer could set an annual promotional budget for a particular retail food store of $50,000 with the objective of moving a sales volume of 100,000 cases of product through that retailer. (Figures used for example purposes only.) The $50,000 would then be used to fund a combination of promotional activities, including entrance fees, Temporary Price Reductions, in-store product demonstrations, and advertising.

Entrance Fees (a.k.a. Slotting Fees): At the time of the sales presentation the producer should be prepared to discuss the costs for securing shelf space in a retail store. These fees, known often as slotting fees or spotting allowances, are fees paid to retailers for carrying a new product or for continuing to carry an existing one. (USDA/ERS, 2000d). It is important, though curious, to note that at the time of the sales presentation the retailer will almost certainly never refer to these fees as "slotting fees," nor should the producer refer to them as such (Weiss, 1996). It is appropriate to let the category buyer raise the subject of fees first, in his/her own terms. These are generally expressed as an advance lump-sum cash payment per SKU per store, but can also be paid, depending on the retailer, by invoice deduction, or with free goods (Weiss, 1996). The retail store participants in this study noted that for small, regional producers with limited resources, retail stores are generally willing to accept a one-time introductory "payment" of a free case per store in lieu of a cash payment. Certain independent food retail stores do not utilize slotting fees.

Food manufacturers rarely have a kind word to say about slotting fees, as many argue that the fees drive up the cost of goods for the manufacturer- and ultimately the consumer, without adding any real value to the product. Retailers maintain that the fees (however they are expressed) are necessary to offset the costs associated with new product introductions and potential product failures (Rao, 2000). Retailers also argue that the fees are necessary to help stem SKU proliferation by essentially requiring "earnest money" from the manufacturer indicating the manufacturers commitment to the product once on shelf. (Meaning, the manufacturer will have an incentive to continue promoting the new product as a means of capturing a return on its slotting fee investment).

Food manufacturers note that slotting fees can account for as much as one-third of the entire promotional budget (Rao, 2000). Smaller producers complain that slotting allowances make it particularly hard for them to compete in the retail chain, especially with respect to introducing products into larger retail chains because of the associated upfront expense. It should also be noted that funding from commercial lenders for this aspect of a marketing plan is difficult to acquire (Weir, 2000).

Temporary Price Reductions: Temporary Price Reductions (TPRs) are an important component of the retail food product-marketing portfolio. TPRs are generally expressed as a set dollar amount off the product's list price for a set period of time (e.g. four weeks). The TPR is expected to generate higher product turn, thus compensating for the lower case cost and generating more revenue overall. The producer should plan for periodic TPRs, e.g. quarterly or in conjunction with a seasonal push, as part of the promotional portfolio.

The retail customer will see the TPR as a tagged item on-shelf (e.g. a large red tag versus the standard white tag). TPRs generally fall into three main categories: off-invoice, bill-back, or scan-based. The method employed generally corresponds to the leverage associated with a specific product or producer (Bruger, 2000).

- *Off-invoice:* This is the method most utilized by small manufacturers. The food manufacturer will offer its retail customer a discount on the per-case invoice price of a product for a period of multiple weeks to a month. This means that every case shipped to the retail customer within the promotion period will be billed at X percentage of the standard invoice price. However, product shipped up to two weeks prior to the promotion period must also receive the discounted price, to account for the fact that that product may be on-shelf during the promotional period. It should also be noted that independent retail stores utilizing a retail food distributor are not obligated to pass along the TPR to the customer, so the store can receive the discounted case price without discounting the consumer price.

- *Bill-Back:* This is the method generally utilized for a moderately strong product or manufacturer. The manufacturer will again offer a per-case discount off the standard invoice price of a product for a set period, e.g. the month of September. In this case, however, the retail store only receives the discount on product sold during the promotion period. For example, if the retailer orders 1000 cases for September 1 delivery to its warehouse, and the on October 1 has an inventory of 200 cases of that product on hand, the retailer will only receive the TPR on the 800 cases used. The remaining 200 will be billed back at the standard invoice price.

- *Scan-based:* This is a more recent TPR mechanism, generally used only by stronger products and producers. The retail store purchases the product at the full invoice price and receives the discounted price only on products sold (scanned at register) during the promotional period. This is the least attractive TPR method to the retailer because it must pay full price for product and the most attractive to producers because it only discounts product sold rather than product shipped during a promotional period.

In-store product demonstrations: Allowing the consumer to sample product is considered a good way to motivate sales. Hence, retail contacts identified in-store product demonstrations as an important component in the product-promotion portfolio. Some retail stores prefer that the producer do the in-store demonstration, while other

stores require that the process be outsourced to a third-party handling all in-store demonstrations for that store or retail chain on a fee-for-service basis. When putting together a plan for executing in-store sampling, therefore, producers should be aware that it may not be possible for them to carry out all the demos required (e.g. for a multiple-store chain), and should budget accordingly. Farmers/processors should also budget for the cost of product used during each demonstration.

Advertising: A product-advertising plan can include radio, television and print promotions as well as joint-promotions with a particular retail store. For the small regional producer, joint-promotions are the most common. Essentially, the producer subsidizes a portion of the retail store's weekly in-store or local newspaper ad in return for having the product listed as a "featured item" at the store. This is often used in conjunction with a TPR period and/or product demonstration.

Product Packaging

Retail buyers described packaging as a key driver of product differentiation. Quality graphics with a coherent and effective layout and colors, as appropriate, should be used to communicate with the consumer and motivate product inventory turn. Packaging should be functionally appropriate, meaning, inter alia, that the retail package should assist in maintaining product shelf-life. Also, both the retail package and the external shipping carton should be capable of withstanding multiple points of handling along the distribution chain. According to the USDA Economic Research Service, packaging accounts for the second largest component of the food marketing bill representing about 10 percent of marketing costs (USDA/ERS, 2000e).

2.2.1.b General Service Requirements

Retail contacts were asked to identify those requirements that must/should be met to ensure that a product can flow efficiently through the retail food supply chain. These address areas such as volume requirements, case size, order and invoice specifications and other logistical information.

UPC Coding

The Universal Product Code (UPC) is a twelve-digit ID Number used by companies to uniquely identify themselves and their products worldwide. Because the retail food supply chain is highly automated, products are increasingly if not exclusively identified by their UPC from the point of entry into a warehouse through the grocery checkout counter. All value-added food products for sale in a retail store must carry a UPC, since this is the way a product will be identified, tracked and communicated about with trading partners.

The UPC must be printed on the retail package. Certain size, placement, color and other scanning-related specifications apply.[6] The UPC is essentially a combination of a unique prefix identifying a firm as the manufacturer of a product and then a unique suffix for each individual product manufactured by that firm. For example, a 6-count package of frozen bratwurst would carry a different code than a 4-count package made by the same manufacturer, although the UPC prefix would be the same for both products. A UPC is easily acquired from the Uniform Code Council. For firms with annual sales of US$0-2 million, the one-time membership fee is less than $1000 dollars. There is no charge for on-going UPC suffix generation (e.g. for each new product or product change).

[6] These specifications can be acquired from the Uniform Code Council (UCC), which administers UPC activities, at www.uc-council.org).

Producers should make sure that label printers or other packaging suppliers can guarantee the scannability of UPC codes they print, as an unreadable UPC at the retail register can in certain cases result in a penalty charge to the producer by the retail store.

U.S. Government Labeling Requirements

Producers should also be aware of federal government requirements for the labeling of food products. The US Food and Drug Administration (FDA) requires that all food products carry the following (FDA, 1999):

- Statement of identity, or name of the food, and the net quantity statement, which must be placed on the portion of the label most likely to be seen by the consumer;
- Name and address of the manufacturer, packer or distributor. Unless the name given is the actual manufacturer, it must be accompanied by a qualifying phrase explaining the firm's relation to the product, e.g., "manufactured for" or "distributed by."
- Street address if the firm name and address are not listed in a current city directory or telephone book;
- City or town; state and zip code.

For smaller producers, it is important to note that a business may be exempt from the requirement of including a "Nutrition Facts" panel on its food packages. This exemption is based on the number of employees and number of product units sold. At present, the exemption applies to businesses with fewer than 100 employees and products with sales of fewer than 100,000 units combined. No exemption may be taken if a company has more than the number of employees listed regardless of number of units produced (FDA, 1999).

However, this exemption deals only with the "Nutrition Facts" panel, and does not exempt producers from the mandatory labeling information (i.e., common name of product, net contents, ingredient statement, name and address of the responsible firm). Businesses must file an annual notice with the FDA explaining that they are claiming an exemption based on number of employees and units of product (FDA, 1999).[7] Further, regardless of firm size and/or annual sales volume, producers making any so-called content claim (e.g., "low fat") or health claim regarding a product are not exempt from carrying nutritional information.

Producers of meat, poultry, or egg products should note that they must also adhere to USDA labeling requirements, which include, amongst other things, carrying a USDA inspection stamp (indicating that product was processed in a federally inspected establishment) on all meat, poultry or egg products. The USDA also adheres to the nutritional content exemption for small producers.

If claims are made on a meat, poultry and egg product label, e.g. health claims as stated above, the label must be reviewed and approved by the USDA Labeling Review Branch. Of particular importance to small, regional producers, the USDA also requires that labels carrying claims related to the geographical origin of a product (e.g. "Straight from Southeast Minnesota to you,") or other claims (e.g. "raised without added hormones," "livestock raised by small family farmers"), must be submitted to the USDA Labeling Review Branch for review. The review will include, among other things, that

[7] For more information on labeling issues, including exemptions, producers can contact the Office of Nutritional Products, Labeling and Dietary Supplements at (202) 205-5229. An exemption form can be obtained on line at http://vm.cfsan.fda.gov/~dms/sbelform.html.

the producer submit affidavits detailing the production methods and other information verifying the relevant claim (USDA/FSIS, 1997).[8]

Order Placement

Orders are generally placed weekly via fax to a central location. This requires the producer to have one fax number with one person/contact responsible for order communication with the retail store. When a product is carried through a retail distributor, the retail order will be placed with the distributor as part of a broader weekly order.

The time required to fulfill an order is normally specified by the producer. However, the lead-time expected by retail stores for most goods is no more than five working days. This means that a weekly order placed on a Friday by a retail store would be expected at the delivery point by the following Friday (the fifth working day after the order was placed). Producers should therefore plan inventory in order to accommodate retail order patterns.

Volume

For specialty foods, retail buyers generally order in case or multiple case quantities per store. A case should consist of a standardized number of product units, such as 12 per case. Mixed cases, containing different products within the same box, are only accepted in very rare circumstances. Retailers that are part of a larger chain expect the product to be available system-wide. For example, a five-store chain in Southeastern

[8] For more information on the specific labeling requirements for meat, poultry and eggs, contact the U.S. Department of Agriculture, Food Safety and Inspection Service at (202) 205-0279. Information can also be found on line at http://www.fsis.usda.gov/OPPDE/larc/policies.htm.

Minnesota would expect the producer to meet the volume and delivery requirements for each of its five stores. In the case of regional-branded products, stores within a chain that operates outside of the region may elect not to carry the product. However, the producer should clearly understand the volume and delivery expectations prior to committing to a supply relationship.

Product Pricing

The producer should set a wholesale price that (a) is competitive with similar products in the retail category, with any variation justified by product differentiation; and (b) will remain competitive once the retail store sets the retail price paid by the consumer. The latter price incorporates the retail store's margin. The wholesale price should be kept firm for an introductory period (e.g. six months); thereafter, wholesale prices are expected to remain firm during any promotional periods such as Temporary Price Reductions or any advertised promotions. Generally speaking, between three to six weeks notice to retailers is required for any wholesale price change (+ or -).

Transportation/Delivery

Retail stores expect product to be delivered to a specified warehouse or store. The wholesale product price (the price the producer charges per case of product) should include the cost of delivery, i.e., there should not be separate invoices for product and delivery. The product must be delivered in an appropriate vehicle. For example, a frozen meat product should be delivered in a clean, temperature controlled truck or it will be rejected at receiving. Delivery hours vary by retail store or warehouse. Retailer storage of larger shipments of product is not available, except in extraordinary cases.

Invoicing

Retail stores can accept paper invoices for product received. An invoice and shipping receipt should accompany each shipment. Invoices should be typed or computer-generated and clearly identify the producer, product, quantity shipped, amount owed and any applicable discounts. Payment terms are generally 30 days from date of invoice. Producers should therefore plan their cash flow accordingly.

Supplier/Product Success Measures

Because category managers seek to maximize their profit given a limited amount of shelf space, product turn, or the rate at which a product moves off the retail store shelf, is considered the most important measurement by which a retail store will judge product success and elect to continue to carry a product. Depending on the product and the store, a retail store would expect a specialty food product to move one to two cases every five to 10 days per store.

Because product turn is likely tied to product promotion, producer participation in product promotion plans (described above) plays an important role in the retailer's decision to continue carrying a product or products from a producer. While no formal mechanism is in place for measuring participation, producers are expected to follow through on the product promotional plan laid out at the sales presentation, and to commit to ongoing product promotion to maintain and build future product sales. Smaller, regional producers are not expected to put forward promotional plans on par with national brands. However, an ongoing commitment to product promotion – with dollars and resources budgeted – is expected.

Adherence to the general service requirements detailed above is also an informal part of a product review process. Products and/or suppliers that add cost to the retail system by varying from the general service requirements may be expected to make up for those higher costs by reducing case costs or extending some type of allowance to the retailer. In some cases, the retail store may seek to recover these above-invoice costs by increasing its margin on the product. If this makes the product no longer price-competitive, the product could be cut.

The requirements for selling directly to a retail food store are summarized in table 2.3.

2.2.2 Selling Through A Retail Food Distributor

As stated above, retailers often, if not exclusively, prefer to work through a distributor as a means of streamlining orders, invoices, and related activities. Food distributors are divided into three main categories: broad line, specialty, or limited-line. Broad line distributors (also known as general-line or full-line) handle a wide variety of groceries, health and beauty aids, and household products. Specialty distributors are firms that specialize in, for example, gourmet food products, meat products, fruits and vegetables, or dairy. Limited-line distributors generally focus on a narrow range of dry groceries, such as canned goods, soft drinks and coffee (USDA/ERS, 2000d). Retail stores work with a combination of all three types of distributors. For small, regional producers of value-added food products (not including produce), a specialty food distributor is likely to be the most appropriate choice for distribution.

When assessing the requirements for working through a retail food distributor it is important to remember that nearly all the requirements outlined above for getting a

Table 2.3 Direct To Retailer Supply Chain Summary

Defined Regional Product Strategy	• Informal/undefined interest • Product must carry further points of differentiation around cost, quality
Buying Decision	• Centralized • Managed by category • Buyer→Buying Team • General preference towards working via distributor (exceptions exist)
Entrance Fee	Expected: • Can be expressed as free case/store • Can be expressed as further hold-back allowance in extraordinary cases
Product Promotion Program	Required: - Temporary price reductions - In-store demos - Advertising
Packaging	• Key driver of product success/differentiation -Quality graphics/colors • Functional appropriateness expected • Government labeling requirements adhered to.
Sales Presentation	Required: • Knowledge of category • Clearly conveyed product differentiation • Reasonable and achievable promotional plan • Price competitiveness • Mock-ups/samples • General service details pinned down (see below)
General Service:	
• Product Availability	Must be available to all stores in division
• UPC	Required: - Retail package - Shipper varies
• Invoicing/Terms	Accepts paper invoices 30 days
• Price Movement (+/-)	• Must remain competitive • Prices firm through introductory period and during promotional periods • Notice requirements vary (3 weeks-6 weeks)
• Order Method	• Via centralized order location • Faxed or electronic transmission
• Lead Time	5 days
• Transportation/Delivery	• Delivered • Clean, appropriate truck
• Volume	Multiple cases
• Case Size	Standardized
• Pallet Requirements	Can accept mixed pallets
• Storage Available	No
• Hold Harmless Insurance	Not applicable
• Credit Check/D&B	No
• Supplier/product measurement	• Turn • Participation in promotional programs • General service requirements met

product on a retail shelf still apply. This is especially true with regard to product promotion. Working through a distributor gives a producer access to a broader based distribution system and generally adds the cost saving benefit of a single delivery point for goods rather than multiple points of delivery.

Like their counterparts at retail stores, the retail food distributors interviewed for this study reported that, while regional products are seen as desirable in terms of further product differentiation, there is no defined strategy in place by which regional product offerings are being pursued or incorporated into the distributor's SKU portfolio. Also like at the retail level, retail food distributors generally make decisions as to whether or not to carry a product via a buying team approach.

2.2.2.a Strategic Requirements

Sales Presentation

The importance of a strong product presentation was heavily emphasized by the retail food distribution contacts interviewed as part of this study. Producer knowledge of the category in which their product will compete was identified as extremely important. While smaller, regional producers are not expected to have access to, or the resources to invest in, highly sophisticated market data (such as Nielson Data) some understanding of the local, regional and national market in which a product will compete is expected.

As with the retail store requirements, producers are expected to clearly communicate how their product differentiates itself from similar products already on the store shelf. Regionality is considered an important point of differentiation, but as above, it must be complemented by additional points of difference along cost and quality lines.

It is again useful to bring a mock-up (package sample) of the product to the sales presentation in order to give the category buyer a good idea of how the product would look on-shelf. The producer should be prepared to leave the mock-up with the buyer for use at the new product team presentation. If the product is accepted for distribution, the retail food distributor may require additional mock-ups, known as sales samples, for use by its sales teams for their presentations to retail category buyers. Producers should keep in mind that sales samples can often be required about 6-8 weeks in advance of the date that the product is scheduled to hit retail shelves.

Product Promotion Plan

The product promotion plan should again incorporate the retail-oriented components of temporary price reductions (TPRs), in-store product demonstrations and advertising. Retail slotting fees should also be addressed and budgeted for. At the distribution level, however, there are generally no additional slotting fees. In certain cases, though, a nominal (e.g. $100) new item fee may be assessed.

At the distributor level, producers should also incorporate plans to participate in merchandising efforts. These include, inter alia, advertising in the distributor's merchandising catalog and participating in regional and/or national food trade shows. (The latter would include travel, booth staffing, product samples, show fees, entertainment expenses and other miscellaneous expenses).

Product Packaging

Retail food distributors, like their retail counterparts, described packaging as a key driver of product differentiation. The same expectations as described at the retail level apply.

2.2.2.b General Service Requirements

Retail food distributor contacts were asked to identify those requirements that must/should be met to ensure that a product can flow efficiently through the retail food supply chain. These address areas such as volume requirements, case size, order and invoice specifications, and other logistical information. In general, these requirements are identical to those required at the store level, with some variation for the special needs of distributors.

UPC Coding

UPC coding is required in the retail distribution chain. Because the product is moving through the system in case quantities, it is very important that the product UPC code appear on the shipper (i.e. corrugated case) as well as on the retail package. The retail distributor will be able to provide any specific requirements with respect to size and placement of the UPC code to meet their tracking needs.

U.S. Government Labeling Requirements

FDA and/or USDA labeling requirements detailed under the direct-to-retail section of this paper apply here as well.

Order Placement

Orders are generally placed weekly via fax to a central location. This requires the producer to have one fax number with one person/contact responsible for order communication with the retail store. As in the case of direct sales to retailers, the amount of time needed to fulfill an order is normally prescribed by the producer. However, the lead-time expected by for most goods is five working days. This means that a weekly order placed on a Friday by a retail food distributor would be expected at the delivery

point by the following Friday (the fifth working day after the order was placed). Producers should therefore plan inventory in order to accommodate retail order patterns.

Volume

For specialty foods, retail food distributors generally order in multiple case quantities. A case should consist of a standardized number of product units, such as 12 per case. Mixed cases, containing different products within the same box, are not accepted except in very rare circumstances. Mixed pallets – pallets carrying cases of more than one product from the same manufacturer, are accepted.

Retail food distributors expect the product to be available system-wide. For example, if a product is to be sold to Retail Store X via the distributor, the product should also be available to the distributor's other customers (i.e. Retail Stores Y and Z). Again, the producer should clearly understand the volume and delivery expectations prior to committing to a supply relationship. A retail food distributor may be willing to carry a product at the request of Retail Store X, but because product turn is the key to the distributor's profit, broader distribution (i.e. incorporating Retail Stores Y and Z) is very important to the distributor.

Product Pricing

The producer should set a wholesale price that (a) is competitive with similar products in the category, with any variation justified by product differentiation; and (b) will remain competitive once the distributor and retailer add in their margins and set the retail price paid by the consumer. The wholesale price should be kept firm for an introductory period (e.g. six months); thereafter, wholesale prices are expected to remain firm during any promotional periods such as TPRs or any advertised promotions listed in

a merchandising catalog. Generally speaking, between three to six weeks notice to retailers is required for any wholesale price change (+ or -).

Transportation/Delivery

Retail food distributors generally expect delivered pricing on products, delivered to a specified warehouse. The product must be delivered in an appropriate truck or vehicle (i.e. temperature controlled truck). Distributor storage of larger shipments of product is not available, except in extraordinary cases. In some cases, distributors will pull from centralized third-party storage sites.

Invoicing

Retail food distributors can accept paper invoices for product received. An invoice and shipping receipt should accompany each shipment. Invoices should be typed or computer-generated and clearly identify the producer, product, quantity shipped, amount owed and any applicable discounts. Payment terms are generally 30 days from date of invoice. Producers should therefore plan their cash flow accordingly.

Other Requirements

In certain cases, to ensure that retail customer's orders will be filled, a retail food distributor may run a credit check on a new supplier to make sure adequate resources are available to produce and deliver product promised. In the case of a new small producer, where a credit rating may not yet be established, it may be necessary to show adequate financial resources to deliver product contracted.

Supplier/Product Success Measures

Because retail food distributors, like their retail store customers, seek to maximize their profit given a limited amount of shelf space, product turn, or the rate at which a

product moves off the retail store shelf, is considered the most important measurement for judging product success and the most important criteria by which a retail food distribution will determine if it will continue to carry a product. Depending on the product, a retail food distributor would expect a specialty food product to move multiple cases every five to 10 days.

Because product turn is likely tied to product promotion, the producer's participation in product promotion plans plays an important role in the distributor's decision to continue carrying a product or products from a producer. While no formal mechanism is in place for measuring participation, producers are expected to follow through on the product promotional plan laid out at the sales presentation, and to commit to ongoing product promotion to maintain and build future product sales.

Adherence to the general service requirements detailed above is also an informal part of a product review process. Products and/or suppliers that add cost to the retail system by varying from the general service requirements may be expected to make up for those higher costs by reducing case costs or extending some type of allowance to the distributor. In some cases, the distributor may seek to recover these above-invoice costs by increasing margin on the product. If this results in making the product no longer price-competitive, the product could be cut.

The requirements for selling through a retail food distributor are summarized in table 2.4.

Table 2.4 Retail Food Distributor Supply Chain Summary

Defined Regional Product Strategy	• Varies by distributor • Specialty distributor carries higher degrees of interest as point of further differentiation from competitors • Product must carry further points of differentiation around cost, quality
Buying Decision	• Centralized by regional division • Managed by category • Buyer→Buying Team
Entrance Fee	• None to very low (e.g. $100 per new item) • Does not take place of retail customer's expectations.
Product Promotion Program	Required: • Same as retail level • Distributor TPRs • Merchandising catalogue ads • Presence at industry food shows
Packaging	• Key driver of product success/differentiation -Quality graphics/colors • Functional appropriateness expected • Government labeling requirements adhered to.
Sales Presentation	Required: • Knowledge of category • Clearly conveyed product differentiation • Reasonable and achievable promotional plan • Price competitiveness • Mock-ups/samples • General service details pinned down (see below)
General Service:	
Product Availability	Must be available system wide
UPC	Required: • Retail package • Generally expected on shipper package (corrugated case)
Invoicing/Terms	• Accepts paper invoices • 30 days
Price Movement (+/-)	• Must remain competitive • Prices firm through introductory period and during promotional periods • Notice requirements vary (3 weeks-6 weeks)
Order Method	• Via centralized order location • Faxed or electronic transmission
Lead Time	5-10 days
Transportation/Delivery	• Delivered • Clean, appropriate truck
Volume	Multiple cases
Case Size	Standardized
Pallet Requirements	Can accept mixed pallets
Storage Available	No
Hold Harmless Insurance	Not applicable
Credit Check/D&B	Varies by distributor
Supplier/product measurement	• Turn • Participation in promotional programs • General service requirements met

2.2.3 Selling To An E-Retailer

The e-retail food supply chain is an emerging opportunity for marketing food products. E-retailing can take various forms, all of which revolve around the consumer utilizing electronic order placement via the Internet. A traditional retail store, for example, may provide a service wherein it accepts Internet orders from a consumer, fulfills that order at the retail store and then delivers the order to the consumer's home. This is quite similar to historic grocery practices, wherein a housewife phoned the local store with a list of groceries and the order was later delivered to the home. A growing trend, however, is for a food e-retailer to build a warehouse system wherein the consumer places an order via the Internet, the order is transmitted to a centralized warehouse serving the region, the order is picked from the stock shelves and delivered to the home. Essentially, this simply removes the retail store from the picture.

The e-retail supply chain is quite similar to that of a retail store, although the centralized warehouse process is more amenable to Direct Store Delivery (DSD) since it removes multiple-delivery points from consideration. The e-retailer interviewed for this study utilizes both DSD and retail food distributors, such that the e-retail chain could follow either of two paths: direct from producer to the e-retailer, or via a distributor servicing an e-retailer (Figure 2.6).

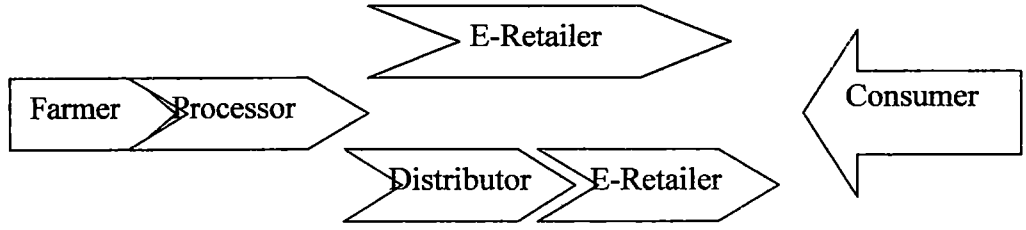

Figure 2.6 Available paths for producer sales to an E-Retailer.

The e-retailer interviewed for this study reported, like its counterparts at retail stores, that while regional products are seen as desirable in terms of further product differentiation, there is no defined strategy in place by which regional product offerings are being pursued or incorporated into the distributor's SKU portfolio. However, the e-retailer did report a preference for locally/regionally produced foods as a way to further differentiate e-retail from traditional retail food stores. The e-retail contact noted a preference for food "with a good story," e.g. a product that can be tied to a particular farm or farm town.

The e-retail format, wherein product details are available on the e-retailer's web page by clicking on the product icon, allows for these types of differentiating details to be explained (without a fee to the producer) to the consumer in ways often not available at the traditional retail store. As with traditional retail stores, decisions as to whether or not to carry a product are made via a buying team approach, with a product category manager as the first interface with the producer, who then sells the product internally to a New Item Committee.

2.2.3.a Strategic Requirements

Sales Presentation

The importance of a strong product presentation was emphasized by the e-retailer interviewed for this study. Producer knowledge of the category in which their product will compete was identified as extremely important. As with the retail store requirements, producers are expected to clearly communicate how their product differentiates itself from similar products already on the store shelf. Producers should bring a product mock-

up (package sample) of the product to the sales presentation in order to give the category buyer a good idea of how the product looks.

Product Promotion Plan

The e-retailer interviewed for this study favored an Everyday Low Price (EDLP) buying regime which streamlines the product promotion plan by eliminating slotting fees, promotional allowances for TPRs and other costs. In return, the e-retailer expects the producer's unit price to reflect the lower cost of product marketing via e-retail.

The e-retailer will work with the producer to promote its product via monthly product features and specials, the details of which are negotiated as part of the sales presentation process. For example, in exchange for the EDLP product price agreed to by the producer, the e-retailer will agree to feature the product in a special "Featured Product" section of its website once every quarter. The e-retailer will agree to periodically sponsor TPRs funded by a reduction in the e-retail margin rather than via a producer funded scheme.

In-store product demonstrations are not applicable in this chain. Coupons are accepted, and may be considered as a producer funded promotion. Print, radio and/or television advertising should be incorporated as appropriate by the producer, but was not heavily emphasized by the e-retailer for regional products.

Product Packaging

While retail product attractiveness is still an important requirement -- i.e., the package should be pleasing to the consumer -- package durability is given higher importance in the e-retail chain. The product package must be able to withstand the e-retail distribution process which consists of the product being received at the e-retail

warehouse, put away on shelf, picked at time of consumer order, dropped in an order-collection tote (after which more products may be dropped on top of the product inside the tote), and then delivered to the consumer, where the product should be received intact. The e-retailer interviewed for this study will, as part of the new product qualification process, run a product through the distribution process to ensure that the package meets durability criteria.

2.2.3.b General Service Requirements

The e-retail contact was asked to identify those requirements that must/should be met to ensure that a product can flow efficiently through the e-retail food supply chain. These address areas such as volume requirements, case size, order and invoice specifications and other logistical information. In general, these requirements were identical to those required by retail stores and retail food distributors.

UPC Coding

UPC coding is required on the retail package, and preferred on the product shipper (i.e. corrugated case).

U.S. Government Labeling Requirements

FDA and/or USDA labeling requirements detailed under the direct-to-retail section of this paper apply here as well.

Order Placement

Orders are generally placed weekly or bi-weekly via fax to a central location. This requires the producer to have one fax number with one person/contact responsible for order communication with the retail store. In the case where a product is carried through

a retail food distributor, the retail order will be placed with the distributor as part of a broader weekly order cycle.

As in previous cases, the amount of time needed to fulfill an order is normally prescribed by the producer. However, the lead-time expected for most goods is five working days. This means that a weekly order placed on a Friday by a retail food distributor would be expected at the delivery point by the following Friday (the fifth working day after the order was placed). Producers should therefore plan inventory in order to accommodate retail order patterns.

Volume

For specialty foods, orders are generally placed for case or multiple case quantities. A case should consist of a standardized number of product units, such as 12 per case. Mixed cases, containing different products within the same box, are not accepted except in very rare circumstances. Mixed pallets – pallets carrying cases of more than one product from the same manufacturer, are accepted.

Product Pricing

The Everyday Low Price (EDLP) pricing regime was discussed above. In addition, the producer should set a wholesale price that (a) is competitive with similar products in the category, with any variation justified by product differentiation; and (b) will remain competitive once the e-retailer adds in its margin and sets the retail price paid by the consumer. The wholesale price should be kept firm for an introductory period (e.g. six months); thereafter, wholesale prices are expected to remain firm for set periods as agreed with E-retailer (e.g. quarterly pricing). Generally speaking, between three to six weeks notice to retailers is required for any wholesale price change (+ or -).

Transportation/Delivery

The e-retailer interviewed for this study utilizes delivered pricing on products, delivered to a specified warehouse. The product must be delivered in an appropriate truck or vehicle (i.e. temperature controlled truck). Distributor storage of larger shipments of product is available. For example, a small producer may wish to deliver a pallet of product rather than a few cases, passing along the storage and delivery savings to the e-retailer as an incentive for larger quantity orders on non-perishable items.

Invoicing

Paper or electronic invoices for product received are accepted. An invoice and shipping receipt should accompany each shipment. Invoices should be typed or computer-generated and clearly identify the producer, product, quantity shipped, amount owed and any applicable discounts. Payment terms are generally 30 days from date of invoice. Producers should therefore plan their cash flow accordingly.

Supplier/Product Success Measures

As with their traditional retail store counterparts, e-retailers rank product turn, or the rate at which a product moves off the retail store shelf, as the most important measurement criteria by which it decides whether will continue to carry a product. Participation in Everyday Low Price programs is also considered very important, as it is tied to generating product turn and hence, e-retailer profitability. Adherence to the general service requirements detailed above is also an informal part of a product review process.

The requirements for selling directly to an e-retailer are summarized in Table 2.5.

Table 2.5 E-Retail Supply Chain Summary

Defined Regional Product Strategy	• Informal/undefined interest • Preference toward local products, especially if it has a "good story"
Buying Decision	• Centralized • Managed by category • Product Manager→New Item Committee
Entrance Fee	None
Product Promotion Program	Required: • Every Day Low Cost pricing • Vendor to pass along savings from no entrance fee, absence of other promotion allowances • Temporary price reductions become responsibility of e-retailer • On-line presentation key driver of success/differentiation
Packaging	• Durable packaging to withstand picking/delivery process • Pleasing to customer • Government labeling requirements adhered to.
Sales Presentation	Required: • Knowledge of category • Clearly conveyed product differentiation • Understand E-retail target market • Price competitiveness (Everyday Low Cost) driving E-retail margin • General service details pinned down (see below)
General Service:	
Product Availability	Not applicable
UPC	• Required • Retail package • Shipper UPC preferred
Invoicing/Terms	• Accepts paper invoices • 30 days
Price Movement (+/-)	• Must remain competitive • Prices firm through introductory period and then firm for agreed to periods • Notice requirements vary (3 weeks-6 weeks)
Order Method	• Via centralized order location • Faxed or electronic transmission
Lead Time	5-10 days
Transportation/Delivery	• Delivered • Clean, appropriate truck
Volume	Multiple cases
Case Size	Standardized
Pallet Requirements	Can accept mixed pallets
Storage Available	Yes
Hold Harmless Insurance	Not applicable
Credit Check/D&B	No
Supplier/product measurement	• Turn • Participation in Everyday Low Cost program • General service requirements met

2.2.4 Selling to a Foodservice Distributor

This section deals with the specific requirements of getting products into the food service supply chain by selling products through a foodservice distributor. The foodservice distributors interviewed for this study reported that while regional products are seen as desirable in terms of further product and distributor differentiation, there is no defined strategy in place by which regional product offerings are being pursued or incorporated into the foodservice distributor SKU portfolio.

Foodservice distributors are organized centrally by operating divisions, meaning that a national food service distribution company makes decisions about product offerings at the regional division level (e.g. Minnesota or Mid-West). Similar to the retail food chain(s), decisions to add a new product to the foodservice distributor's warehouse shelf are made by a centralized, division-wide buying team, with the first point of contact the category buyer, who then pleads the case for carrying a new product to a cross-functional buying team.

2.2.4.a Strategic Requirements

Sales Presentation

The importance of a strong product presentation was heavily emphasized by the foodservice distributors interviewed as part of this study. Producer knowledge of the category in which their product will compete was identified as extremely important. Smaller, regional producers are expected to have some understanding of the local, regional and national market in which a product will compete.

Producers are expected to clearly communicate how their product differentiates itself from similar products already offered by the foodservice distributor. While

differentiation via regionality (e.g. "Direct from Southeast Minnesota") is seen as important, it must be complemented by additional points of difference along cost and quality lines. In the foodservice industry, for example, product yield is an important product sales tool, such that improved product yield over an existing product, and therefore improved value for the customer (institution or restaurant), is the kind of differentiator a distributor will look for. Product samples for preparation and tasting at the presentation may also be an important part of a sales presentation. The producer should arrange with buyer in advance to see if there is interest in a product demonstration as part of the presentation.

Product Promotion Plan

At the time of the sales presentation, the producer should be prepared to discuss plans to support the product once it is in the distributor's portfolio of products. The plan should be reasonable and achievable for a small, regional producer. Included in such a plan should be budgeted Distribution Program Dollars, Temporary Price Reductions, merchandising, and participation in industry food shows.

Distribution Program Dollars: Distribution Program Dollars, also known as Special Marketing Relationship (SMR) dollars, are in some ways the foodservice equivalent of retail slotting fees, in that all suppliers pay them and they arguably serve as a profit center for the foodservice distributor. Hence, program dollars are also referred to as "sheltered income" (Barret, 2001). Foodservice distributors note that Program Dollars are necessary to help subsidize overhead costs and other operational costs otherwise not recovered through product margin, and necessary to keep the distributor profitable and competitive.

Temporary Price Reductions: Temporary price reductions (TPRs) in the foodservice distribution chain function much in the same way as in the retail chain. Producers should plan for periodic TPRs, e.g. quarterly or in conjunction with a seasonal push, as part of the promotional portfolio.

Merchandising Catalog: Foodservice distributors utilize a product catalog system where products and prices are listed. Catalogs are generally by period, e.g. Fall 2001, or on a monthly or bi-monthly basis. As a way to promote their product, producers should plan to incorporate space adverting in these catalogs. Space ads can be run in conjunction with TPRs. Producers should understand that the merchandising schedule runs about 8 weeks in advance of product delivery, so pricing, advertising, TPRs and other promotions should be planned well in advance.

Product Packaging

For the retail foodservice distribution chain, durability and functional appropriateness are the key packaging requirements. There is a heavy emphasis on the external shipper package (e.g. corrugated case) in this chain, as the shipper must (a) be a manageable weight, shape and size for a delivery person to load and unload onto a delivery truck, and (b) be able to withstand multiple points of handling and stacking and still arrive in-tact to the customer. The unit-package should be designed to deliver ease of use to the customer and shelf-life protection.

2.2.4.a General Service Requirements

Food service distribution contacts were asked to identify those requirements that must/should be met to ensure that a product can flow efficiently through the food service

supply chain. These address areas such as volume requirements, case size, order and invoice specifications and other logistical information.

UPC Coding

UPC coding is required on the food service unit package and on the product shipper (i.e. corrugated case). Among other things, foodservice distributors rely on UPCs to eliminate non-value added costs from the distribution chain (e.g. locating product within a warehouse, invoicing errors resulting from a incorrect product code entry). UPCs also allow for improved product demand forecasting which in turn could allow foodservice distributors' to reduce safety stock (Food Institute, 2000).

U.S. Government Labeling Requirements

FDA and/or USDA labeling requirements detailed under the direct-to-retail section of this paper apply here as well.

Liability Insurance

Foodservice distributors require producers to carry product liability insurance and to agree to indemnify and hold the foodservice distributor harmless against damages and claims caused by the producer's actions. A standard product liability policy is designed to cover an insured's liability for injury or damage caused by the product. The foodservice company may also require that the producer carry product recall insurance, which indemnifies an insured for specified expenses incurred in a product recall, including expenses incurred by the foodservice distributor.

This proof of insurance requirement reflects the fact that when a product is being sold through a foodservice distributor, the foodservice distributor's brand equity is more at risk from a food safety/product quality perspective than at the retail level. At the retail

level, the consumer would generally hold the brand-owner (e.g.. the producer) responsible (both legally and from a brand-loyalty perspective) for a quality or food safety issue without placing blame on the retail store where the product was purchased.

Order Placement

Orders are generally placed weekly via fax to a central location. This requires the producer to have one fax number with one person/contact responsible for order communication with the retail store. In certain cases, electronic order placement is preferred.

The amount of time needed to fulfill an order is normally prescribed by the producer. However, the lead-time expected by for most goods is between three and eleven working days, depending on the product. Producers should therefore plan inventory in order to accommodate food service order patterns.

Volume

For non-national branded items, foodservice distributors generally order in multiple case or pallet quantities. A case should consist of a standardized number of product units, such as 12 per case. Mixed cases, containing different products within the same box, are not accepted except in very rare circumstances. Mixed pallets are acceptable.

Foodservice distributors expect a product to be available system-wide. Therefore, distributors generally do not favor so-called back door sales wherein a producer might build a relationship with one of the distributor's customers, who then requests that the distributor stock and service that product. In that case, a product could take up warehouse space and put the distributor in an unprofitable position because the product has only one

customer (resulting in lower product turn), no promotional commitment from the producer, and is not generating any additional income (Program Dollars) from that product.

Product Pricing

As in other cases, the producer should set a wholesale price that (a) is competitive with similar products in the food service category, with any variation justified by product differentiation; and (b) will remain competitive once the distributor sets the price paid by the customer. The latter price incorporates the foodservice distributor's margin. The wholesale price should be kept firm for an introductory period (e.g. six months); thercafter, wholesale prices are expected to remain firm during any promotional periods such as Temporary Price Reductions or any advertised promotions. Generally speaking, between three to six weeks notice to retailers is required for any wholesale price change (+ or -).

Transportation/Delivery

Foodservice distributors vary with regard to delivery requirements. While some prefer delivered pricing with product delivered to a specified warehouse, others prefer to back-haul products when the manufacturing or storage location is on an established route for its trucks. In those cases a freight allowance will be established and deducted from the invoice (delivered) price. If the producer is responsible for delivery, the product must be delivered in an appropriate truck or vehicle. For example, a frozen meat product should be delivered in a clean, temperature controlled truck or it will be rejected at receiving. Delivery hours vary by warehouse and must be respected. Foodservice distributor storage of larger shipments of product is not available.

Invoicing

Foodservice distributors can accept paper or electronic invoices for product received. An invoice and shipping receipt should accompany each shipment. Invoices should be typed or computer-generated and clearly identify the company, product, quantity shipped, amount owed and any applicable discounts. Payment terms are generally 30 days from date of invoice. Producers should therefore plan their cash flow accordingly.

Supplier/Product Success Measures

Foodservice distributors vary with regard to formal "vendor scorecards," with some distributors employing a multi-category system, evaluating vendors along cost, quality and service lines. These could include, inter alia, vendor participation in promotional programs, on-time and complete delivery performance, and unsaleables (unusable product due to, for example, packaging issues). A less structured approach may be employed by a distributor to evaluate vendor and product performance. However, in either case, product inventory turn, or the rate at which a product moves through the distributor's warehouse, is considered the most important measurement by which a category buyer or manager will continue to carry a product. Depending on the product, a foodservice distributor would expect a food product to move multiple cases every five to 10 days per store.

Because product turn is likely tied to product promotion, producer participation in product promotion plans (described above) plays an important role in the foodservice distributor's decision to continue carrying a product or products from a producer. Producers are expected to follow through on the product promotional plan laid out at the

sales presentation, and to commit to ongoing product promotion to maintain and build future product sales. Smaller, regional producers are not expected to put forward promotional plans on par with national brands, however, an ongoing commitment to product promotion – with dollars and resources budgeted– is expected.

Adherence to the general service requirements detailed above is also an informal part of a product review process. Products and/or suppliers that add cost to the retail system by varying from the general service requirements may be expected to make up for those higher costs by reducing its case costs or extending some type of allowance to the foodservice distributor. In some cases, the distributor may seek to recover these above-invoice costs by increasing margin on the product. If this results in making the product no longer price-competitive, the product could be cut.

The requirements for selling directly to a foodservice distributor are summarized in Table 2.6.

2.2.5 Selling Directly to Institutions and Restaurants

This section deals with the specific requirements of selling products directly to institutions and restaurants. Institutions refer to non-commercial foodservice concerns, such as retirement communities, schools, and hospitals.

The institution and restaurant contacts interviewed for this study reported an informal "philosophical" interest in regional food products, reflecting an interest to support farmers and farm communities in Southeast Minnesota. Cost, quality and service caveats were also noted, reflecting the primary concern of institution/restaurant buyers

Table 2.6 Foodservice Distribution Supply Chain Summary

Defined Regional Product Strategy	• Informal/undefined • Possible point of difference for food service firms' product line
Buying Decision	• Centralized by division (operating company) • Managed by category • Category Manager→Buying Team
Entrance Fee	Expected: • Generally expressed in terms of sales % hold-back allowance versus upfront fee
Product Promotion Program	Required: • Merchandising catalogue ads • Temporary price reductions • Presence at industry food shows
Packaging	• Functional appropriateness • Shipper construction very important (repeat handling through system) • Government labeling requirements adhered to.
Sales Presentation	Required: • Knowledge of category • Clearly conveyed product differentiation • Reasonable and achievable promotional plan • Price competitiveness
General Service:	
Product Availability	Must be available division wide
UPC	Required
Invoicing/Terms	• Accepts paper invoices • 30 days
Price Movement (+/-)	• Must remain competitive • Prices firm through introductory period and during promotional periods • Notice requirements vary (3 weeks-6 weeks)
Order Method	• Via centralized order location • Faxed or electronic transmission
Lead Time	3-11 days
Transportation/Delivery	Pick-up preferred
Volume	Multiple cases or pallet quantities
Case Size	Standardized
Pallet Requirements	Can accept mixed pallets
Storage Available	No
Hold Harmless Insurance	Required
Credit Check/D&B	Varies by distributor
Supplier/product measurement	• Turn • Participation in promotional programs • General service requirements met

around price competitiveness, good-high quality products and efficiency-oriented but flexible service criteria.

Institution/restaurant food buyers are highly localized, buying for one location. These firms source food products utilizing a combination of foodservice distributors and direct purchasing from wholesalers. The institution contact also reported being a member of a Midwest regional buying group, which uses its combined purchasing leverage to negotiate volume incentives (e.g. monthly and quarterly rebates based on the volume of dollar purchases) with its foodservice distributor. The producer should contact the institution/restaurant to identify the person responsible for purchasing decisions.

2.2.5.a Strategic Requirements

Sales Presentation

Selling directly to an institution/restaurant is a more informal process than those described earlier in the study. Institution/restaurant buyers are most concerned with whether a product is price competitive with similar products already being purchased via a distributor or at a wholesale market. Price competitiveness also incorporates expected "value competitiveness," meaning the product offers comparable or improved yield over the brand the institution/restaurant is currently purchasing. Institution/restaurant buyers are also concerned with assurance of supply, e.g. can they procure what they need when they need it and with relative ease. At the time of the sales presentation, the producer should clearly convey reasons why the institution/restaurant should add an additional supplier to its vendor base, and, perhaps, draw dollar volume away from its volume incentive program with a foodservice distributor.

Institutional/restaurant food buyers place a high emphasis on sampling a product before committing to a purchase agreement. The producer should arrange with the buyer in advance to determine if a product demonstration would be feasible as part of the presentation, or perhaps arrange to leave a sample with the buyer.

Producers should ask in advance of a sales presentation for some key information from the institution/restaurant to ensure an effective sales presentation. This information should include: the institution/restaurant's current foodservice distributor(s), whether or not the institution/restaurant has flexibility in that contract to source certain products from other vendors, whether there is a volume incentive/volume rebate program in place with that distributor (terms are generally proprietary), the institution/restaurant's menu cycle, the number of meals served per week, and the annual dollar volume purchase in the category in which the producer's product competes.

Product Promotion Plan

Selling directly to institutions/restaurants is less promotion intensive than other marketing alternatives. However, it is important for the producer to remember that it must compete with the food buyer's existing supplier base for a share of the institution/restaurant food budget. While there is an absence of slotting fees, promotional allowances and other formalized promotion mechanisms, the producer should remember that competitors (e.g. foodservice distributor) will likely offer temporary price reductions on competing products. Therefore, some promotional planning is needed to remain price competitive and build customer loyalty. The producer might also choose to adopt an Everyday Low Price strategy to build price competitiveness and brand loyalty.

Product Packaging

As in the foodservice distribution chain, durability and functional appropriateness are the key packaging requirements. The unit-package should be designed to deliver ease of use to the customer and shelf-life protection. The external shipper should be capable of withstanding stacking.

2.2.5.b. General Service Requirements

Institution/restaurant contacts were asked to identify those requirements that must/should be met to ensure that a product can flow efficiently through the institution/restaurant food supply chain. These address areas such as volume requirements, case size, order and invoice specifications and other logistical information.

UPC Coding

UPC coding was not an identified requirement in this chain. Some identifying label on the unit-package and external shipper is required.

U.S. Government Labeling Requirements

FDA and/or USDA labeling requirements detailed under the direct-to-retail section of this paper apply here as well.

Liability Insurance

This is not a requirement for doing business with institution/restaurant. (Author's note: producers should be aware of their own business needs with respect to product liability insurance.)

Order Placement

Orders are generally placed weekly via fax or phone to a central location. This requires the producer to have one fax or phone number with one person/contact

responsible for order communication with the institution/restaurant. The time needed to fulfill an order is normally prescribed by the producer. However, the lead-time expected for most goods is between three and five working days, depending on the product. Producers should therefore plan inventory in order to accommodate food service order patterns.

Volume

Institutions/restaurants generally order in multiple units (eaches), case, or multiple case quantities. A case should consist of a standardized number of product units, such as 12 per case. Mixed cases, containing different products within the same box, are accepted.

Product Pricing

Institution/restaurant buyers heavily stressed the importance of price competitiveness. This reflects the fact that institutions/restaurants (a) generally work within a fixed purchasing budget and (b) are unable to easily pass along higher prices to the end-consumer. The producer should set a price that (a) is competitive with similar products available from a foodservice distributor or wholesaler, and (b) offers an incentive to the institution/restaurant to give up dollar volume with its foodservice distributor if enrolled in a volume incentive program (i.e., compensate for institution/restaurant's opportunity cost).

Transportation/Delivery

Institutions/restaurants expect delivered pricing. The product must be delivered in an appropriate truck or vehicle. Delivery hours vary by institution/restaurant and must be

respected. Institution/restaurant storage of larger shipments of product is generally not available.

Invoicing

Paper invoices are standard for institutions/restaurants for product received. An invoice and shipping receipt should accompany each shipment. Invoices should be typed or computer-generated and clearly identify the company, product, quantity shipped, amount owed and any applicable discounts. Payment terms vary between immediate payment to between 10 and 30 days from date of invoice. Producers should therefore plan their cash flow accordingly.

Supplier/Product Success Measures

Consistent product quality, price competitiveness and good customer service were identified by institution/restaurant contacts as the most important criteria by which a supplier/product is measured. This chain allows for a good deal of person-to-person interaction between producer and customer, and thus, an opportunity for frequent feedback and continuous product and producer improvement.

The requirements for selling directly to an institution and/or restaurant are summarized in Table 2.7. A comprehensive chain-by-chain summary of requirements is provided in Table 2.8. Looking across supply chains, some common requirements exist. Within each of the chains described there exists an informal commitment to regional products, however, no set strategy for developing these products exists. Product presentation is considered a key success factor in each of the chains, as are strong presentation skills on the part of the producer. Further, each chain requires the producer to present a promotional plan for their product(s) with dollars budgeted.

Table 2.7 Institution/Restaurant Direct Supply Chain Summary

Defined Regional Product Strategy	• Highest level of informal commitment • Constrained by supply, higher cost
Buying Decision	Localized
Entrance Fee	None
Product Promotion Program	Not required by buyer
Packaging	• Functional appropriateness expected • Government labeling requirements adhered to.
Sales Presentation	Required: • Price competitiveness • Assurance of supply, quality • Samples
General Service:	
Product Availability	Not applicable
UPC	Not required
Invoicing/Terms	• Paper invoices • Terms vary
Price Movement (+/-)	Must remain competitive
Order Method	• Varies by institution/restaurant • Centralized ordering preferred • In-person, phone, fax
Lead Time	1-5 days
Transportation/Delivery	Delivered
Volume	Multiple units or cases
Case Size	• Standardized • Can accept mixed cases
Pallet Requirements	Not applicable
Storage Available	No
Hold Harmless Insurance	Required
Credit Check/D&B	No
Supplier/product measurement	• Consistent product quality and service • Price competitiveness

Table 2.8 Summary Table of Chain Requirements

	RETAIL	RETAIL DISTRIBUTOR	E-RETAIL	FOOD SERVICE DISTRIBUTOR	INSTITUTION/ RESTAURANT
Defined Regional Product Strategy	- Informal/undefined interest - Product must carry further points of differentiation around cost, quality	- Varies by distributor - Specialty distributor carries higher degrees of interest as point of further differentiation from competitors - Product must carry further points of differentiation around cost, quality	-Informal/undefined interest -Preference toward local products, especially if it has a "good story"	- Informal/undefined - Possible point of difference for food service firms' product line	-Highest level of formal commitment - Constrained by supply, higher costing formal/undefined - Varies by institution/restaurant
Buying Decision	- Centralized - Managed by category - Buyer→Buying Team - General preference towards working via distributor (exceptions exist)	- Centralized - Managed by category - Buyer→Buying Team	- Centralized - Managed by category - Product Manager→New Item Committee	-Centralized by division (operating company) -Managed by category - Category Manager→Buying Team	-Localized
Entrance Fee	Expected: - Can be expressed as free case/store - Can be expressed as further hold-back allowance in extraordinary cases	- None to very low (e.g. $100 per new item) - Does not take place of retail customer's expectations.	None	Expected: - Generally expressed in terms of sales % hold-back allowance versus upfront fee - Sometimes referred to as program dollars, justified as subsidy to cover costs of overhead for food service distributor	None
Product Promotion Program	Required: -Temporary price reductions - In-store demos - Advertising	Required: - Temporary price reductions - In-store demos - Merchandizing catalogue ads - Presence at industry food shows	Required: - Every Day Low Cost pricing - Vendor to pass along savings from no entrance fee, absence of other promotion allowances - Temporary price reductions become responsibility of e-retailer - On-line presentation key driver of	Required: - Merchandising catalogue ads - Temporary price reductions - Presence at industry food shows	Not required by buyer

Table 2.8 Summary Table of Chain Requirements

	RETAIL	RETAIL DISTRIBUTOR	E-RETAIL	FOOD SERVICE DISTRIBUTOR	INSTITUTION/ RESTAURANT
			success/differentiation		
Packaging	-Key driver of product success/differentiation -Quality graphics/colours -Functional appropriateness expected - Government labelling requirements adhered to	-Key driver of product success/differentiation - Quality graphics/colours -Functional appropriateness expected - Government labelling requirements adhered to	- Durable packaging to withstand picking/delivery process - Pleasing to customer - Government labelling requirements adhered to	-Functional appropriateness -Shipper construction very important (repeat handling through system) - Government labelling requirements adhered to	- Functional appropriateness expected - Government labelling requirements adhered to
Sales Presentation	Required: - Knowledge of category - Clearly conveyed product differentiation - Reasonable and achievable promotional plan - Price competitiveness - Mock-ups/samples - General service details pinned down (see below)	Required: - Knowledge of category - Clearly conveyed product differentiation - Reasonable and achievable promotional plan - Price competitiveness - Mock-ups/samples - General service details pinned down (see below)	Required: - Knowledge of category - Clearly conveyed product differentiation - Understand E-retail target market - Price competitiveness (Everyday Low Cost) driving E-retail margin - General service details pinned down (see below)	Required: - Knowledge of category - Clearly conveyed product differentiation - Reasonable and achievable promotional plan - Price competitiveness	Required: - Price competitiveness - Assurance of supply, quality - Samples
General Service:					
• Product Availability	Must be available to all stores in division	Must be available system wide	Not applicable	Must be available division wide	Not applicable
• UPC	Required: - Retail package - Shipper UPC varies	Required: - Retail package - Shipper UPC varies	Required - Retail package - Shipper UPC preferred	Required - Unit package - Shipper UPC required	Not required
• Invoicing/Terms	Accepts paper invoices 30 days	Accepts paper invoices 30 days	Accepts paper invoices 30 days	Accepts paper invoices 30 days	Paper invoices Terms vary
• Price Movement (+/-)	- Must remain competitive - Prices firm through introductory period and during promotional periods - Notice requirements vary (3 weeks-6 weeks)	- Must remain competitive - Prices firm through introductory period and during promotional periods - Notice requirements vary (3 weeks-6 weeks)	- Must remain competitive - Prices firm through introductory period and then firm for agreed to periods - Notice requirements vary (3 weeks-6 weeks)	- Must remain competitive - Prices firm through introductory period and during promotional periods - Notice requirements vary (3 weeks-6 weeks)	- Must remain competitive

Table 2.8 Summary Table of Chain Requirements

	RETAIL	RETAIL DISTRIBUTOR	E-RETAIL	FOOD SERVICE DISTRIBUTOR	INSTITUTION/ RESTAURANT
• Order Method	- Via centralized order location - Faxed or electronic transmission	- Via centralized order location - Faxed or electronic transmission	- Via centralized order location - Faxed or electronic transmission	- Via centralized order location - Faxed or electronic transmission	- Varies by institution/restaurant - Centralized ordering preferred - In-person, phone, fax
• Lead Time	5 days	5-10 days	5-10 days	3-11 days	1-5 days
• Transportation/Delivery	- Delivered - Clean, appropriate truck	- Delivered - Clean, appropriate truck	- Delivered - Clean, appropriate truck	Pick-up preferred	Delivered
• Volume	Multiple cases	Multiple cases	Multiple cases	Multiple cases or pallet quantities	Multiple units or cases
• Case Size	Standardized	Standardized	Standardized	Standardized	- Standardised - Can accept mixed cases
• Pallet Requirements	Can accept mixed pallets	Can accept mixed pallets	Can accept mixed pallets	Can accept mixed pallets	Not applicable
• Storage Available	No	No	Yes	No	No
• Hold Harmless Insurance	Not applicable	Not applicable	Not applicable	Required	Required
• Credit Check/D&B	No	Varies by distributor	No	Varies by distributor	No
• Supplier/product measurement	- Product turn - Participation in promotional programs - General service requirements met	- Product turn - Participation in promotional programs - General service requirements met	- Product turn - Participation in Everyday Low Cost program - General service requirements met	- Product turn - Participation in promotional programs - General service requirements met	- Consistent product quality and service - Price competitiveness

CHAPTER 3

Cost Assessment

3.1 Assessing the Costs of Identified Requirements

In this chapter, the costs of participating in each of the alternative supply chains will be analyzed. For each of the requirements identified for supply chain participation, a cost can be assessed. These costs are divided into two categories: fixed costs and variable costs. Fixed costs are costs incurred, even if no or little output is produced, and they do not vary with output. Variable costs vary with output, such that each unit of a product produced carries a cost and the total variable cost of production increases or decreases with total production. Table 3.1 summarizes the identified requirements from the previous chapter, assigning each of the requirements to either fixed or variable costs, and then translating those requirements into specific line items on a cost schedule.

Table 3.1 Translating Requirements to Budget Line Items

Requirement	Budget Line Item	Type
Entrance Fee	Promotional Expenses	Fixed
Product Promotion Program	Promotional Expenses	Fixed
Sales Presentation	Coordination/Sales Office	Fixed
Packaging	Packaging	Variable
General Service:		
Product Availability	Coordination/Sales Office	Fixed
UPC	Coordination/Sales Office	Fixed
Invoicing	Coordination/Sales Office	Fixed
Order Management	Coordination/Sales Office	Fixed
Price Management	Coordination/Sales Office	Fixed
Transportation:		
Coordination	Coordination/Sales Office	Fixed
Delivery	Hired Truck	Variable
Storage:		
Coordination	Coordination/Sales Office	Fixed
Third Party Storage	Storage Costs	Variable
Insurance	Insurance	Fixed
Other:		
Unsaleables	Unsaleables	Variable

There are two other important costs to be considered on the variable cost schedule: input costs and processing costs. This study does not address the producers' decision regarding whether or not to outsource production. Rather the study assumes a charge for processing goods, regardless of where or how the product is produced. Input costs are assumed as provided by the producer, as this study does not address optimal input mix or costs.

Regarding variable costs, a budget for unsaleables must also be allocated (note that unsaleables are included in Table 3.1 under Variable Costs). Unsaleables are product that is returned from a retailer or distributor for various reasons, such as packaging issues that render a product unsaleable to the consumer. This cost can be assessed as a percentage of the production costs, arrived at, until a history of unsaleable product can be developed, by assuming, for example, that for every 100 cases produced, 3 cases will be returned from the customer (e.g. retail store). A budget for general business expenses, e.g. telephone, office supplies, rent, license fees, should also be set. A typical cost schedule for a producer would look like that depicted by Table 3.2.

3.2 Application of Cost Assessment to Farming With Nature

Data from an existing Southeast Minnesota firm, Farming With Nature Coop, are used here to illustrate an analysis of supply chain alternatives. Farming With Nature (FWN) is a cooperative of diversified small family farmers[9] using sustainable farming and livestock rearing techniques. FWN is interested, as are many smaller farmers, in

[9] Small family farms are defined as farms with gross sales less than $250,000 annual, as outlined in the USDA/ERS Agricultural Resource Management Study, 1997.

Table 3.2 Typical Cost Schedule for Small Regional Producer

Small Regional Producer
Product X
Fiscal Year 2002

Fixed Costs (Annual)	Chain X
Promotional Expenses	
Coordination Services	
Telephone	
Supplies (Office & Operating)	
Insurance	
Dues/Subscriptions	
Taxes	
Travel/Entertainment	
Total	$
Variable Costs (Annual)	Chain X
Ingredients/Processing Costs Per Unit	
Packaging	
Storage	
Freight Allowance/Transportation	
Unsaleables	
Unit Cost	
Number of units per case	
Total Per Case Variable Cost/Case	$

capturing a larger portion of the food dollar while supporting a contra-industrial agricultural model. Building a regional food identity, tied to the Southeast Minnesota region, is a secondary motivation for FWN, though this is certainly valued as a point of differentiation for its potential line of products.

FWN producers are interested in collectively marketing value-added natural pork products. FWN was selected as a good candidate for an application of the study's findings because it was poised to make key decisions regarding which supply chain to pursue in its effort to promote value-added pork products. In order to make an informed decision, FWN first needed to identify the requirements associated with each of the supply chains, estimate the cost of meeting those requirements, and ultimately make a decision as to which supply chain(s) and product(s) to pursue. FWN is also at a decision

point regarding the degree of internal cooperation required to meet supply chain requirements, including the need for any coordinating institution and/or mechanisms.

For the purpose of this analysis, certain assumptions were made in assessing cost and revenue for each chain. First, the study considers only a single product, wild rice pork bratwurst, in each of the supply chains. This product was chosen because FWN has a limited history of selling this product sold through an e-retail chain under the FWN label. Case size and volumes by chain, when needed for estimating certain costs (i.e. promotional costs, storage) were assumed based on stated chain requirements. For example, retail food stores, as reported in the requirement section of this study, expect that at least one case of product be sold per week, resulting in a volume estimate of 52 cases/year for a retail store. This number is multiplied by the number of retail stores selling the product -- 16 stores for the hypothetical retail chain considered in this example-- for an annual volume of 52 X 16 = 832 cases annual for the retail food supply chain. Assumptions are detailed in the Comments section of the relevant detailed worksheets in the Appendix.

3.2.1 Deriving Costs

This section details how a line-item cost is derived. A detailed spreadsheet is available in the Appendix.

Promotional Expenses

Promotional expenses include the following: Entrance Fees (e.g. free case per retail store, Special Marketing Relationship dollars), Temporary Price Reductions (TPRs), Advertising (Merchandising Catalog, Newspaper, etc), and Food Industry Shows plus In-Store Product Demonstrations.

Entrance fees were estimated as a free case per store for the retail store direct and retail food distributor chains. Assumptions regarding the number of retail stores or foodservice customers supplied are listed on the detailed Promotion spreadsheet in the Appendix. However, the actual number of retail stores may vary for other producers. Entrance fees for the food service chain were estimated as a percentage of sales, in this case 7.5 percent, which represents the median of the five to ten percent of sales range reported by food service chain respondents in the study. No entrance fee was allocated for the e-retail food chain or institution/restaurant direct.

While TPRs are tied to case volume, they are included here as part of the total fixed promotional budget from which TPR funds will be drawn because they are part of the total product promotional portfolio with a fixed annual budget. Meaning, because the producer has limited funds available, and those funds must also address the other promotional costs associated with marketing a product, the TPR budget must be viewed as part of the overall promotional portfolio. This annual TPR budget will then be amortized across cases of product, and made available as appropriate given the promotional requirements of individual customers.

For example, if a producer has an overall budget of $10,000 to promote a product annually, and, given the costs of the other required promotional components (entrance fees, in-store demonstrations, etc.) the producer has $3,500 dollars remaining to put toward TPRs, the producer would derive a TPR schedule from this dollar amount. That is, divide the $3,500 by the cost per case of the TPR to find the sales volume (number of cases) that will be made available for TPRs over the course of a year. To find the cost per case of a TPR , multiply the wholesale case price by, for example, 0.125 (a standard, but

not definitive, percentage discount). That means, if the per case wholesale price of product is $30, the cost to the producer would be $3.75. This number should be divided into the annual TPR budget of $3500. This equation yields a sales volume of 933 cases that can be made available for TPRs over the course of year. (Note: For the purposes of the application to FWN, because no budget was yet available, to derive the annual cost of TPRs, the TPR cost per case was multiplied by an estimated targeted case sales volume per promotion week. This was then multiplied by the number of promotional weeks annual (assuming six weeks per promotion with three promotions annual)).

Costs for trade shows, when applicable, were estimated by taking the listed costs for booths at trade shows (i.e. the listed cost per vendor for a booth at the annual food show run by one of the study participants), plus the estimated costs for travel and lodging for FWN representatives, plus the cost of product used during the course of a trade show.

Costs for in-store product demonstrations, when applicable, were based on industry-average product demonstration charges (as reported during interviews) multiplied by the industry average number of hours employed per demonstration (six hours), plus the estimated cost of product used per demonstration. This number was then multiplied by the number of stores where a product demonstration would be employed. The sum of these promotional costs was then plugged in as a Fixed Cost line item on the Cost Assessment worksheet.

Coordination Services

The cost for coordination services was determined by estimating the number of hours per week, during standard working hours, that would be needed to staff order management, production planning, delivery scheduling and other customer service issues. It is

important to remember that a coordinator must be available during standard working hours in order to be responsive to customer needs. The number of hours was then be multiplied by an hourly wage equal to the opportunity cost to that individual from working on coordination services versus another wage-carrying activity.

Telephone, Supplies, Rent

These costs can be were estimated using available market information.

Insurance

These costs are based on available market information and include the annual premium for an umbrella policy including catastrophic coverage, workers compensation (to cover direct and indirect employees), general product liability, and marine insurance to cover product in transit.

Regarding hold harmless agreements discussed in the requirements section, a hold harmless agreement is not an insurance plan in itself. Instead, the producer negotiates with the customer (i.e. foodservice distributor) and agrees to hold the customer harmless in case of a product liability issue. On the production side, the small regional producer would negotiate a hold-harmless agreement with the processor as part of a production contract. The processor would agree to add the small regional producer as an additional insured party on its coverage, and would give the producer a certificate showing proof of this insurance. The processing facility that FWN uses does not participate in hold-harmless agreements. Therefore, FWN insurance coverage includes slightly higher liability insurance coverage and premium than might be the case if the processor carried FWN as an additional insured on its policy.

Taxes

This line item includes the costs for any business licenses and payroll taxes. Because FWN is a cooperative, profits are taxed at the member level rather than the firm level.

Travel & Entertainment

A modest budget was set for entertainment expenses, such as lunch meetings with potential distributors or customers. Travel expenses accommodate non-promotional travel expenses. For FWN, and small regional producers generally, this will not be a very large number, ranging from $200 - $500 annually, depending on the supply chain.

Unsaleables

Some money should be budgeted to account for the costs of unsaleable goods. For a new product in a supply chain, production and sales history will help set the average annual dollar amount generally required for this category, which can then be allocated as part of the variable case costs. For FWN initially, a set percentage (three percent) of production was assumed to account for unsaleables, and added as a line item to the variable costs. This does not account for, however, any costs to transport the unsaleable product back from a customer. In many cases, though, the customer will dispose of unsaleable product under instruction by the producer, thus avoiding return charges.

Input and Processing Costs

This line item represents the ingredient costs per case of product produced plus the cost to process the ingredients into the finished value-added product. This number was supplied by FWN and is detailed in a sub-worksheet. A key assumption made for this cost is that FWN will be processing an entire hog, at an average weight of 250 pounds

live weight, yielding 122 pounds net processed meat. From this 122 pounds, 37 pounds will be used for bratwurst production. This cost analysis assumes that the remaining processed meat, comprising various cuts, will be sold on a non-branded basis to a meat wholesaler, who will be responsible for transportation and storage of this product. The likely wholesale prices received for these cuts were supplied by one of the foodservice respondents in this study. The revenues from the sale of these cuts will be used to offset the ingredient (meat) and processing costs for bratwurst production. Table 3.3 shows the estimate yield-by-cut for a 250-pound live weight (122-pound net processed weight) hog.

Table 3. 3 Estimated Yield-By-Cut For 250-Pound Live Weight Hog For FWN

Estimated Yield	**Live Weight: 250 lbs**		
Processed Meat Remaining	122 lbs		
Cut	Lbs per Hog	Wholesale Price/Lb	Revenue
Ham	20	$2.05	$41
Chops	25	$2.75	$69
Roast	30	$2.05	$62
Ribs	8	$2.00	$16
Tenderloin	2	$2.88	$6
Subtotal	85		$193
Remainder to Brats	37		

The processing costs per case of product were taken from list prices at two Southeast Minnesota custom processing facilities. FWN decided for location and service factors, in addition to price, to concentrate production at a custom processing facility in Southeast Minnesota. The facility is USDA inspected and HAACP certified.

It is also important to note at this time that FWN must also consider supply chain participation within the context of its hog production capacity. That capacity, given its member base, ranges from 100 to 600 hogs annually. Table 3.4 shows the hog requirements for different levels of production volume. This shows that FWN would likely make its supply chain decision within the 300 to 1900 case annual volume level.

Table 3. 4 Hog Requirements For Increasing Levels of Production Volume

Case Volume	Hog Requirements
20	6.49
60	19.46
80	25.95
100	32.43
200	64.86
400	129.73
600	194.59
800	259.46
1000	324.32
1200	389.19
1400	454.05
1600	518.92
1800	583.78
2000	648.65

Packaging Costs

Packaging costs on a per case basis include the unit packaging (e.g. carton or film retail package), and, when the unit package is not a printed package, a printed label carrying brand and product information. To arrive at a per-case cost, the per-unit packaging cost is multiplied by the number of units in one case. In the case of FWN, unit-packaging costs are included in the processing cost charged by the processor. The packaging cost listed on the cost schedule is the cost of an external 12-count corrugated case.

Storage

This is the cost charged by either the processor or third-party for storing product. In the case where a processor will store product, this charge is usually assigned a monthly charge per case. The processor selected by FWN, like most custom meat processors, does

not have finished-product storage available. Therefore, a third-party cold storage facility must be employed.

To calculate the associated costs, price quotes were obtained from two storage facilities in Southeast Minnesota and one storage facility in the Minneapolis-St. Paul Metro Area. Storage costs were supplied on a per-pallet or per-pound basis, and then converted to a per-case cost. Based on service considerations (end-customer overlap), the quote from one of the storage facilities in Southeast Minnesota was used as the basis for variable cost calculations.

Transportation/Freight Allowance

Transportation was calculated by taking the average of delivery quotes provided by two trucking firms in the Southeast Minnesota area. Quotes were provided on a less than truckload (LTL) basis, on a minimum poundage basis – meaning, for example, the delivery cost per pound for delivery would be the same for 1000 pounds as for 100 pounds. The costs were the same for pickup and delivery from any points in Southeast Minnesota within a 300-mile radius. The trucking-cost was divided by the estimated number of cases in an average order to arrive at a per-case transportation cost. The quote from a storage facility in Southeast Minnesota was used as the basis for variable cost calculations, based on service considerations (delivery schedule and end-customer overlap).

3.2.2. Calculating Chain Costs

To calculate the cost for participating in a chain, the following formula was applied:

$Cost_i$ = Fixed $Cost_i$ + (Variable Unit $Cost_i$ X Unit Volume)

Where *i* is the particular chain under consideration, and one unit is equal to one case.

Table 3.5 shows the fixed costs and per unit variable costs calculated by per chain.

Table 3.5 Fixed and Variable Cost Schedules By Supply Chain

Farming With Nature Wild Rice Brats, FY 2002					
Fixed Costs (Annual)	**Retail Direct**	**Retail Distributor**	**E-retail**	**Foodservice Distributor**	**Institution-Direct**
Promotional Expenses	9691	44730	0.00	45486.72	2198
Coordination Services	6000	6000	6000	6000	6000
Telephone	1500	1500	1500	1500	1500
Supplies (Office & Operating)	500	500	500	500	500
Insurance	3000	3000	3000	5000	5000
Dues/Subscriptions	600	600	600	600	600
Taxes	900	900	900	900	900
Travel/Entertainment	500	200	200	200	200
Total	$22,691	$57,430	$12,700	$60,186	$16,898
Variable Costs (Per Case)					
Ingredients/Processing Costs Per Unit	1.06745	1.06745	1.06745	1.06745	1.06745
Packaging	0.08333	0.08333	0.08333	0.08333	0.08333
Storage	0.08529	0.08529	0.08529	0.08529	0.08529
Freight Allowance/Transportation	0.03743	0.03743	0.03743	0.03743	0.03743
Unsaleable Allowance (@3% of unit cost)	.038205	.038205	.038205	.038205	.038205
Unit Cost	1.27350	1.27350	1.27350	1.27350	1.27350
Units per case	1.311705	1.311705	1.311705	1.311705	1.311705
Total Variable Cost/Case	$15.74	$15.74	$15.74	$15.74	$15.74

Plugging in the identified costs at various levels of production, a cost schedule is derived for each of the supply chains. This cost schedule is shown in Table 3.6. Variable costs here are identical across chains, reflecting the best available estimates. However, it is likely that there would be some differences in transportation costs to account for direct delivery customers at the retail and institution level, and thus multiple delivery points driving higher transportation costs. Fixed Costs, driven by promotional costs, are likely to be the main barrier to entry for a small firm like FWN. The retail distributor and

foodservice distributor chains are the high cost chains, with the entrance fee and temporary price reduction costs higher than other chains. This is not surprising given the broader distribution demands, and thus broader (in terms of delivering sales volume) promotional demands to support these chains.

Table 3.6 Total Costs By Chain At Increasing Volume Levels

	Costs Per Volume Level	Costs Per Volume Level	Costs Per Volume Level	Costs Per Volume Level	Costs Per Volume Level
Volume (Total Cases)	Retail Direct	Retail Distributor	E-retail	Foodservice Distributor	Institution-Direct
20	$22,931	$57,670	$12,940	$60,426	$17,138
40	$23,171	$57,910	$13,180	$60,666	$17,378
60	$23,411	$58,150	$13,420	$60,906	$17,618
100	$23,891	$58,630	$13,900	$61,386	$18,098
200	$25,091	$59,830	$15,100	$62,586	$19,298
300	$26,291	$61,030	$16,300	$63,786	$20,498
400	$27,491	$62,230	$17,500	$64,986	$21,698
500	$28,691	$63,430	$18,700	$66,186	$22,898
600	$29,891	$64,630	$19,900	$67,386	$24,098
700	$31,091	$65,830	$21,100	$68,586	$25,298
800	$32,291	$67,030	$22,300	$69,786	$26,498
900	$33,491	$68,230	$23,500	$70,986	$27,698
1000	$34,691	$69,430	$24,700	$72,186	$28,898
1100	$35,891	$70,630	$25,900	$73,386	$30,098
1200	$37,091	$71,830	$27,100	$74,586	$31,298
1300	$38,291	$73,030	$28,300	$75,786	$32,498
1400	$39,491	$74,230	$29,500	$76,986	$33,698
1500	$40,691	$75,430	$30,700	$78,186	$34,898
1600	$41,891	$76,630	$31,900	$79,386	$36,098
1700	$43,091	$77,830	$33,100	$80,586	$37,298
1800	$44,291	$79,030	$34,300	$81,786	$38,498
1900	$45,491	$80,230	$35,500	$82,986	$39,698
2000	$46,691	$81,430	$36,700	$84,186	$40,898

Looking at this graphically, as shown in Figure 3.1 we see two distinct classes of costs develop across the various supply chains, with the total costs and volume requirements associated with the broader food retail and foodservice chains significantly higher than those for the retail direct, e-retail and institution/restaurant direct chains.

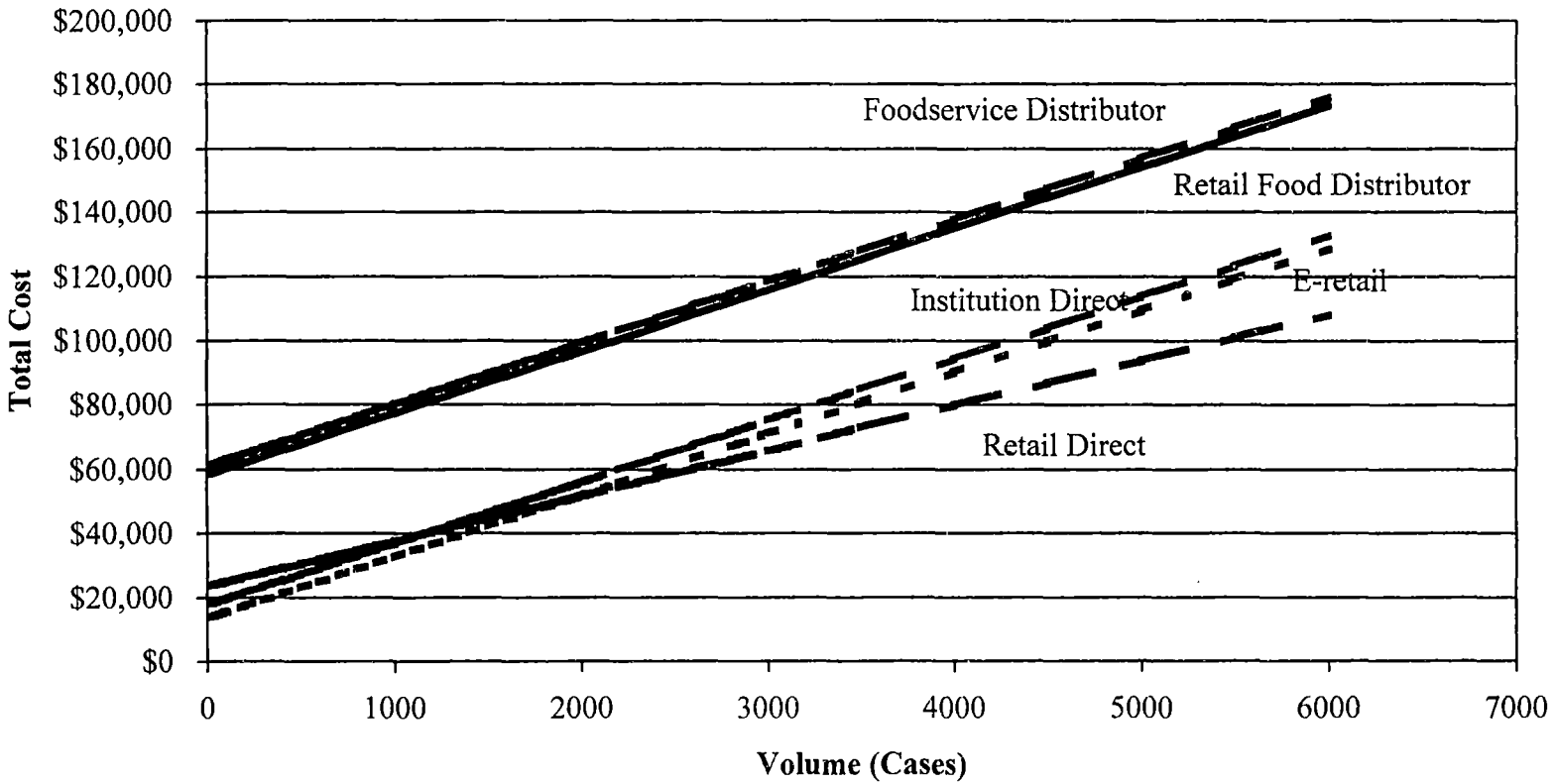

Figure 3.1 Total costs to FWN at increasing volume levels.

3.2.3 Calculating Profit

To calculate the chain profitability, the following formula was applied:

$$Profit_i = (Revenue_i \text{ X Unit Volume}) - (\text{Fixed Cost}_i + (\text{Variable Unit Cost}_i \text{ X Unit Volume}))$$

To calculate revenue, prices were assumed according to the schedule in the following table. These prices were then discounted back from the retail or distributor level to derive a feasible (given the stated chain requirements for price competitiveness) unit price. Table 3.7 shows the basis for price assumption for each chain. Table 3.8 shows the price and margin information by chain for FWN. A profit by volume level comparison is shown in Figure 3.2.

Table 3.7 Price Assumptions By Chain

Chain	Assumption
Retail Direct ($3.99/unit)	Represents the lower of two prices for competitive product currently available in Metro-area: Yorkshire Farms All Natural Frozen Brats at Whole Foods ($3.99 per 16 oz package) and Organic Valley Organic Frozen Brats ($5.69 per 16 oz package at Kowalski's Market).
Retail Distributor ($3.99/unit)	Represents the lower of two prices for competitive product currently available in Metro-area: Yorkshire Farms All Natural Frozen Brats at Whole Foods ($3.99 per 16 oz package) and Organic Valley Organic Frozen Brats ($5.69 per 16 oz package at Kowalski's Market).
E-Retail ($3.99/unit)	Assumed parity with Simon Delivers' fresh, conventional brat price ($3.99 per 16 oz package) and added a $0.50 premium (for regional, natural differentiation) over Johnsonville frozen, conventional pork brat price at $3.49. (Johnsonville frozen bratwurst is listed on the same page as FWN product on E-retail website.)
Foodservice Distributor ($2.29/unit)	Price paid by regional food service firm for similar but conventional product. $2.29/lb represents the high end for bratwurst prices (range $1.69-$2.29/lb), representing highest quality. This was assumed to be equivalent differentiation for regional, natural product.
Institution/Retail Direct ($2.29/unit)	Price paid by regional food service for similar but conventional product. $2.29/lb represents the high end for bratwurst prices (range $1.69-$2.29/lb), representing highest quality. This was assumed to be equivalent differentiation for regional, natural product. Producer margin was then added to this price to reflect the wholesale price.

Table 3.8 Price and Margin Assumptions By Chain

	Retail Direct	Retail Distributor	E-retail	Foodservice Distributor	Institution-Direct
Total Per Case Variable Cost	$15.281	$15.281	$15.281	$15.281	$15.281
Market Price/Unit	$3.99	$3.99	$3.99	$3.21	$3.21
Market Case Value	$47.88	$47.88	$47.88	$38.47	$38.47
Wholesale Case Price	$34.20	$26.31	$34.20	$27.48	N/A
Distributor Price To Market	N/A	$34.20	N/A	N/A	N/A
FWN Margin/Case	$18.918	$11.025	$18.918	$12.198	$23.19

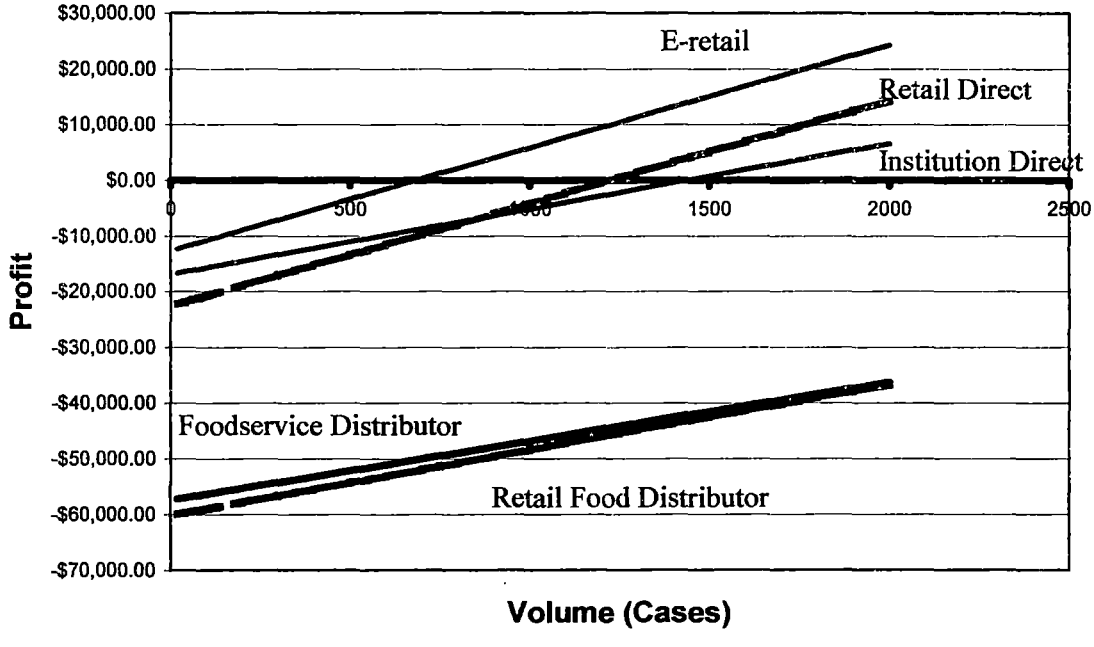

Figure 3.2 Profit by volume level

Figure 3.2 shows that neither the foodservice or retail distribution chain is a profitable choice for FWN, given FWN production constraints. Neither the retail food distributor or the foodservice distributor chain breaks even below the 5,000 case level (not shown on graph). Given the FWN production constraint of processing up to 600 hogs, these chains are not feasible since they would require between 1400 and 2000 hogs

to meet volume requirements. This would require a substantial increase in FWN membership or an increase in the number of hogs per farm required for participation. In an effort to put this in context, Figure 3.3 depicts these potential volume requirements and break-even point associated with participating in the volume-driven retail food distributor and the food service distributor chains.

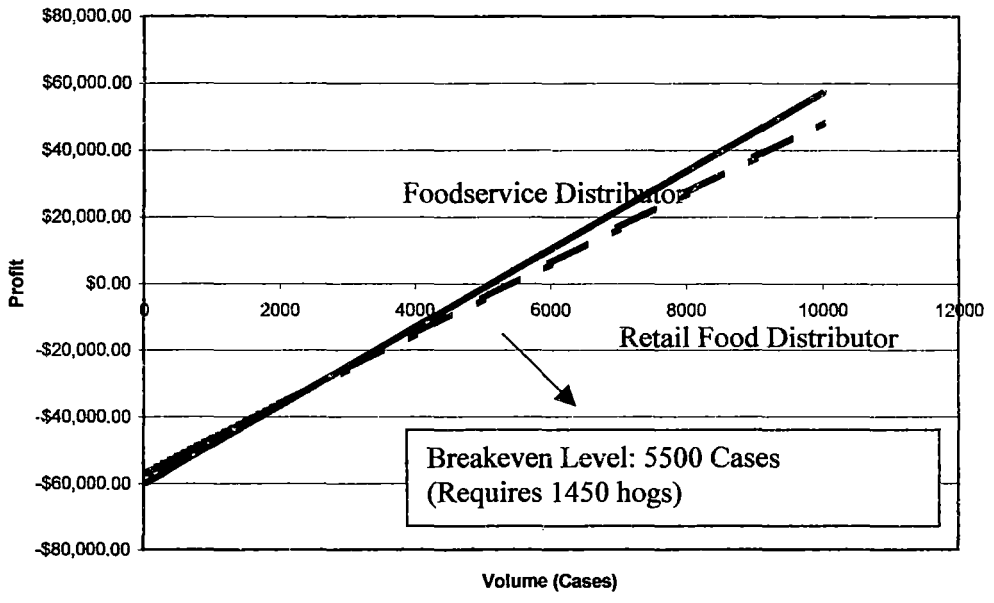

Figure 3.3 Profit by volume level for the retail food and foodservice distributor chains.

As depicted in Figure 3.2, retail direct, e-retail and institution/restaurant direct represent potentially profitable options for FWN, given FWN production constraints. The institution/restaurant direct becomes a profitable option at the 1500 case volume level. This relatively high volume level is driven by the fact that FWN must remain competitive with the price institution/restaurants are paying for similar products from foodservice distributors, thus the benchmark price assumed in the revenue calculation is relatively low compared to the retail direct and e-retail chains.

A closer look at the profit schedule for the e-retail chain shows that it offers the best opportunity for profit at lower volumes. This chain has the lowest entrance costs since it carries no entrance fees, and the Everyday Low Pricing strategy removes the need to fund temporary price reductions. However, the chain is not a profitable option at less than the 800 case level. This level may not be feasible, given that that sales level would require e-retail product turn of about 15 cases per week, substantially more than the two to three cases per month currently sold through that chain by FWN.

The retail direct supply chain turns profitable at the 1300 case level. This is roughly equivalent to a sales volume of 1.5 cases per week at sixteen retail food stores (25 cases per week). This volume level is feasible, however, higher volume levels (and thus, higher profit) may not be feasible without more aggressive marketing (and therefore higher chain costs).

The above analysis considers chain costs and profitability taking each chain as a discrete decision point. That is, we consider our decision in the context of choosing only one chain for product distribution. Therefore, each chain carries a full set of fixed costs associated with distribution. These costs include so-called unique fixed costs – costs associated with product distribution exclusively in the specific chain (e.g. promotion costs), as well as non-unique costs. Non-unique fixed costs include coordination, insurance, telephone and office supply costs could be shared across more than one chain, more than one product, or more than one firm.

3.2.4 Reducing Fixed Costs

To understand the effects of cost-sharing, cost and profit schedules were adjusted to reflect the following scenario. Sales volume for e-retail was set at 200 cases (about

four cases per week), and 100 percent of non-unique chain costs - coordination, insurance, telephone and office supply expenses, were built into the cost schedule for e-retail. This has the effect of producing a loss for e-retail distribution. However, when a second chain is added to the mix, such that the non-unique expenses have already been paid for by the e-retail chain, the combined breakeven level is lower than when fixed costs were not shared. For the combined E-Retail/Retail Direct the breakeven volume moves from 1300 cases to 600 cases (12 cases combined per week). For the combined E-Retail-Institution/Retail Direct, the new breakeven level is 300 cases (6 cases per week). Figure 3.4 shows these new breakeven levels.

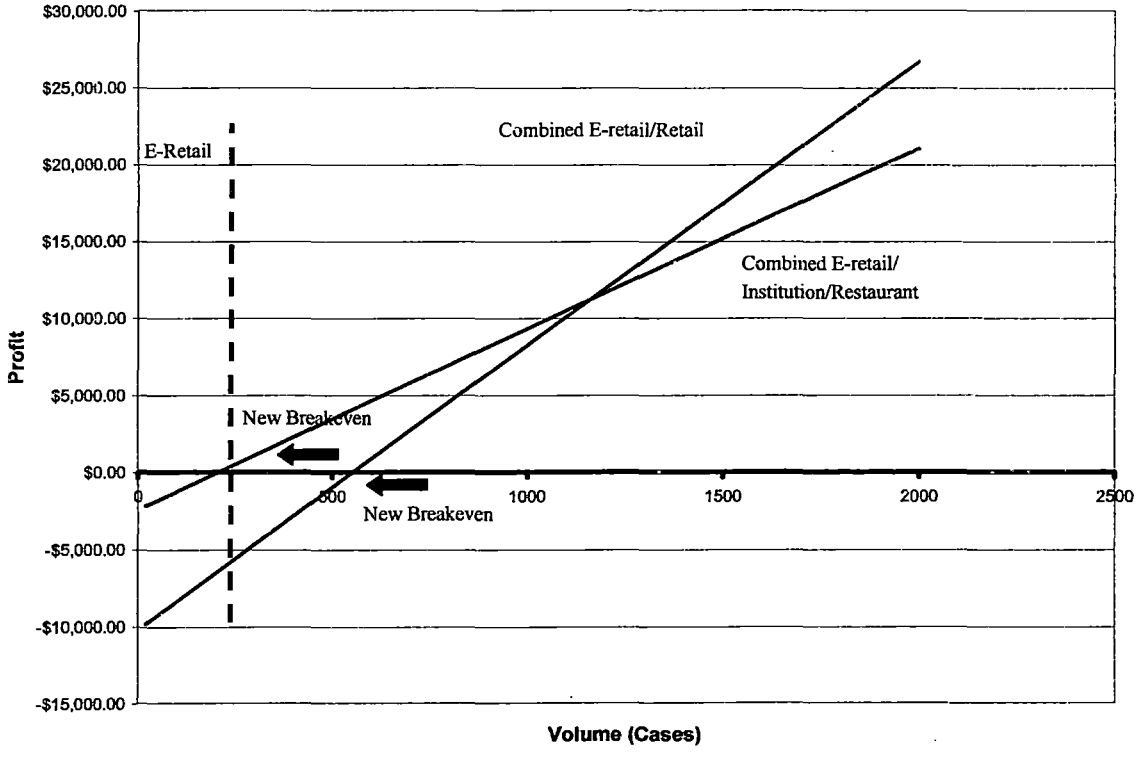

Figure 3.4. Profit by volume level after sharing fixed costs between an additional supply chain, product or firm.

The scenario depicted in Figure 3.4 is arrived at by participating in two chains, with one chain carrying 100 percent of non-unique chain costs. However, the key point is that fixed costs are shared with another entity. Therefore, this could also be accomplished by sharing the non-unique chain costs with another value added branded product. Sharing fixed costs with another small, regional producer would also deliver the same results.

Summary

Is FWN better off by participating in a value-added food supply chain compared to selling hogs directly to hog processors. That is, has the objective of capturing a larger portion of the consumer food dollar been met? As depicted in Figure 3.5, by moving along the supply chain vis a vis value-added hog products, FWN can indeed capture more of the food dollar.

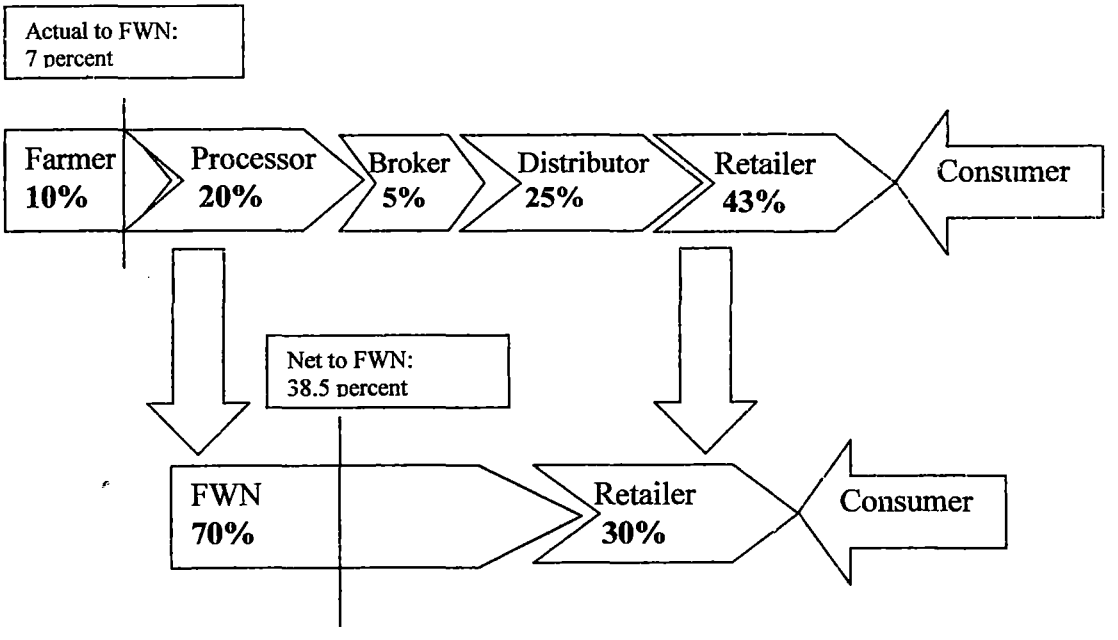

Figure 3.5 Comparison of benefits to producer from various levels of supply chain participation.

By selling directly to a processor, FWN could capture seven percent (or $0.07 per $1.00) of the dollar (assuming $0.50/lb live weight paid to FWN for 250 pound hog, with a 12-count case of value-added product carrying a $47.88 retail value). As shown in Figure 3.5, FWN could now capture 70 percent of the consumer food dollar (at points at or above the breakeven position). This, of course also requires taking on more of the service and functions required to get the product from farm to fork. After accounting for these associated costs of moving up the supply chain, FWN would net 38.5 percent, $0.385, of the consumer food dollar (at points at or above the breakeven position). Therefore, FWN is indeed better off with respect to the share of the consumer food dollar captured.

CHAPTER 4
Summary and Conclusions

This study contributes to Southeast Minnesota's smaller, regional producers' capacity to participate in food supply chains (retail, foodservice, restaurants/institutions) by identifying requirements for entry and competition in those chains and quantifying the costs associated with meeting those requirements. This information is intended to assist small, regional producers in making informed decisions about which chain or chains offer a feasible and profitable mechanism for distributing regionally produced value-added food products.

A literature review identified consumer, food retailer and foodservice firm interest in food products produced regionally. The review also identified convenience and price as important drivers in the consumer decision whether to purchase regional food products versus other available alternatives.

Interviews with decision-makers in each supply chain were conducted to identify supplier requirements and industry best practices. These interviews outlined strategic and tactical requirements specific to each chain. They also revealed characteristics or requirements common to each chain. These include an informal commitment to regional products as a way to differentiate product portfolios, but no set strategy. For example, no respondent reported a targeted sales dollar amount or percentage of sales as specifically targeted for representation by regionally produced products. This informal commitment to regional products carries the condition that the regional product also has further points of differentiation, such as quality, price, value, or innovation.

Product promotion plans with dollars budgeted are required in each of the chains except e-retail, where an Everyday Low Price (EDLP) strategy is in place. Promotional plans include entrance fees, temporary price reductions, in-store product demonstrations, advertising and producer presence at industry food shows. Study respondents reported some flexibility for small, regional producers in meeting these promotional requirements, taking into consideration the size and scale of the producer. However, each chain expects some commitment to product promotion.

Certain general service requirements are common to all chains. All chains require that the producer have a central order location, that is, a consistent, responsive location to which orders can be phoned, faxed or e-mailed. All chains can accept paper invoices; electronic data transfer (EDI) capability is not an absolute requirement. All chains (except institution/restaurant direct) require Universal Product Codes (UPC) as a mechanism for product tracking throughout the distribution system. The retail food distributor and foodservice distributor chains generally require higher volumes of product and larger promotional budgets, making this a difficult, but possible, chain for small regional producers.

Margins applied at the retail store or retail/foodservice distributor levels should be considered within the context of the costs associated with the distribution and marketing roles assumed by these links in the supply chain. Essentially, the more outsourcing of services employed by the small regional producer, the greater portion of the food dollar shared with those service providers. Therefore, the small regional producer should compare these margins to the costs associated with outsourcing functions such as sales,

order management, and broad product distribution versus managing these functions internally. Each of the identified requirements can be translated into either a fixed or variable cost. A small, regional producer can assess these costs against potential revenues from product sales to evaluate chain profitability.

This study illustrates a general approach for assessing the producer's decision between distribution chains with an analysis for a specific Southeast Minnesota producer, Farming With Nature. Farming With Nature (FWN) is a small group of diversified family farmers using sustainable farming and livestock techniques to produce value-added pork products. FWN currently markets some product at regional farmer's markets, which requires a high level of farmer participation (i.e. time spent at each of the farmer's markets each week) with little or no assurance of future production needs. FWN is interested in participating in other available distribution chains to decrease the amount of time spent away from the farm, increase the reliability of production (i.e. sales forecasts) and at the same time allow the group to capture a higher percentage of the food dollar than if their hogs were sold to a processor. FWN is also interested in building a regional food identity (e.g. a regional food label) and supporting a contra-industrial agribusiness model. It is also important to note that the individual members comprising FWN have a self-imposed constraint of wanting to remain smaller farmers, i.e., this set of farmers wants to maintain a rural lifestyle supporting the small family farm model, which, in turn, carries with it certain production constraints.

Given the requirements of each chain, the specific production constraints for FWN, and the likely prices received for its product, the application section concludes that the E-Retail and Retail Direct chains were the best options for FWN participation. Retail

Food Distributor and Foodservice Distributor chains are not feasible for FWN given the high volume requirements and associated high fixed (promotional) costs. When non-unique chain fixed costs - coordination, insurance, telephone and office supply costs - are shared across more than one chain, product or firm, FWN can achieve profitability at lower aggregate volume levels in either the E-Retail, Retail Direct or Institution/Restaurant Direct distribution chains.

The application section of the paper looks at the chain decision for one specific product – a one-pound package of natural, wild rice bratwurst, given the specific constraints associated with Farming With Nature operations. Therefore, the specific findings for FWN may not be applicable to other firms or products; however, the methodology developed for this study can be used for other firms and products.

Some general conclusions can be drawn from this study. Given the requirements outlined for each of the supply chains and the costs associated with those requirements, it is feasible and profitable for small regional producers to participate in the supply chains considered in this study. Production constraints may drive the decision as to which chain is feasible for participation, with the retail food distributor and foodservice distributor chains representing the high volume and high cost chains. Sharing fixed costs across chains, products or firms offers an opportunity for improved producer profitability.

Sharing fixed costs also presents an opportunity for regional cooperation, wherein a group of small producers could share coordination and other expenses through a regional marketing cooperative. Under such an arrangement customer service, invoicing, and production could be coordinated for a number of Southeast Minnesota firms by one coordinating organization, funded by, for example, prorated contributions from each of

the participating small regional producers. Essentially equivalent to a broker function, this role could be alternatively facilitated through a third party such as a non-profit group serving a coordination and business development function, or perhaps attract private sector interest in the region. The spillover benefits, not captured in the quantitative evaluation above, could include more efficient customer service, opportunities for regional product promotions (i.e. complete meal promotions at retail stores) leading to higher volumes, and/or reduced promotional costs. Finally, this approach could form the foundation for regional brand equity in value-added food products.

The requirements and feasibility assessment template outlined in this paper, while developed specifically for regional producers in Southeast Minnesota, is easily transferable to applications in other regions of the United States. The cost, quality and service requirements outlined by retailers, retail food distributors, e-retailers, foodservice distributors and institutions and restaurants are not, for the most part, specific to the Southeast Minnesota region or the individual firms which contributed to this paper. While feasibility for smaller producers' participation in value-added food supply chains is largely tied to the existing regional distribution infrastructure, e.g. refrigerated storage, or trucking routes, the method of assessing cost and profitability does not vary with region. Therefore, regional producers should adjust the templates developed here to best reflect their particular circumstances.

Appendix 1
Cost and Margin Calculations
By Chain

Farming With Nature					
Wild Rice Brats					
Fiscal Year 2002					
Fixed Costs (Annual)	**Retail Direct**	**Retail Distributor**	**E-retail**	**Foodservice Distributor**	**Institution-Direct**
Promotional Expenses	9691	44730	0	45486	2198
Coordination Services	6000	6000	6000	6000	6000
Telephone	1500	1500	1500	1600	1500
Supplies (Office & Operating)	500	500	500	500	500
Insurance	3000	3000	3000	5000	5000
Dues/Subscriptions	600	600	600	600	600
Taxes	900	900	900	900	900
Travel/Entertainment	500	200	200	200	200
Less Prorated Coordination Expenses	10000	10000	10000	11600	11600
Total	**$22,691**	**$57,430**	**$12,700**	**$60,186**	**$16,898**
Variable Costs (Annual)	**Retail**	**Retail Distributor**	**E-retail**	**Foodservice Distributor**	**Institution Direct**
Ingredients/Processing Costs Per Unit	1.0675	1.0675	1.0675	1.0675	1.0675
Packaging	0.08333	0.08333	0.08333	0.08333	0.08333
Storage	0.08529	0.08529	0.08529	0.08529	0.08529
Freight Allowance/Transportation	0.03743	0.03743	0.03743	0.03743	0.03743
Unsaleables (@ 3% of unit cost)	0.03821	0.03821	0.03821	0.03821	0.03821
Unit Cost	1.31175	1.31175	1.31175	1.31175	1.31175
Number of units per case	12	12	12	12	12
Total Per Case Variable Cost/Case	**$15.74102**	**$15.74102**	**$15.74102**	**$15.74102**	**$15.74102**
Margin/Case	$18.45898	$10.56668	$18.45898	$11.73898	$11.73898
Wholesale Case Price	$34.20	$26.31	$34.20	$27.48	$27.48
Distributor Price To Retailer	N/A	$34.20	N/A	N/A	N/A
Retail Case Value	$47.88	$47.88	$47.88	$38.47	$38.47
Retail Price/Unit	$3.99	$3.99	$3.99	$3.21	$3.21

Appendix 2
Promotional Budget Calculations

EXAMPLE					
Wild Rice Brats Promotional Budget					
Fiscal Year 200X					
Marketing Collaborative Promotional Expenses (Annual)	Retail Direct	Retail Distributor	E-retail	Foodservice Distributor	Institution-Direct
Entrance Fees (e.g. slotting, SMR/program dollars)	547.2	6840	0	17897.724	0
Temporary Price Reductions (TPRs)	3693.6	11839.5	0	16488	2198.4
Advertising (Merchandising Catalog, Newspaper, etc)	2600	2300	0	2800	0
Food Industry Shows	0	8300	0	8300	0
In-Store Product Demonstrations	2850	15450	0	0	0
Total	$9,690.80	$44,729.50	$0.00	$45,485.72	$2,198.40

Appendix 2
Promotional Budget Calculations
(continued)

Entrance Fee Calculation	Formula	Chain Cost	Notes
Retail Direct	Case Cost x Number of Stores	547.2	Assumes: 1 free case per store, DSD sales to 16 retail stores; $34.20/case value
Retail Distributer	Case Cost x Number of Retail Stores Requesting Entrance Fee	6840	Assumes: 1 free case per store, distributed to 200 retail stores; $34.20/case value
E-retail	Not Applicable	0	Assumes: Every Day Low Pricing (EDLP)
Foodservice Distributer	Case Cost x 7.5% (est.) x Expected Number of Cases Sold Annual	17897.724	Assumes: 167 cases sold per week x 52 weeks; $27.48/case value
Institution/Restaurant	Not Applicable	0	
Temporary Price Reduction Calculation	**Formula**	**Chain Cost**	**Notes**
Retail Direct	Case List Price x .125 (est) x Targeted Promotion Case Sales Volume per Promotion Week x Number of Promotion Weeks Annual: (6 weeks per Promotion x 3 Promotions Annual)	3693.6	Assumes: DSD sales to 16 retail stores;10 cases /week; $34.2/case list price
Retail Distributer	Case List Price x .125 (est) x Targeted Promotion Case Sales Volume per Promotion Week x Number of Promotion Weeks Annual: (6 weeks per Promotion x 3 Promotions Annual)	11839.5	Assumes: distribution to 200 stores; 300 cases/week; $26.31/case list price
E-retail	Not Applicable If Utilizing Every Day Low Pricing (EDLP)	0	Assumes: Every Day Low Pricing (EDLP)
Foodservice Distributer	Case List Price x .125 (est) x Targeted Promotion Case Sales Volume per Promotion Week x Number of Promotion Weeks Annual: (4 weeks per Promotion x 4 Promotions Annual)	16488	Assumes: 250 cases/week; $27.48/case list price
Institution/Restaurant	Case List Price x .125 (est) x Targeted Promotion Case Sales Volume per Promotion Week x Number of Promotion Weeks Annual: (6 weeks per Promotion x 4 Promotions Annual)	2198.4	Assumes: 40 cases/week; $27.48/case list price

Appendix 2
Promotional Budget Calculations
(continued)

Merchandising/Newspaper Joint Feature Ads Calculation	Formula	Chain Cost	Notes
Retail Direct	Average Weekly Ad Cost: ($400) x Four Ads Annual + Annual Ad Development Cost: (Photography + Camera Ready Art Work = $1000)	2600	
Retail Distributer (Monthly Merchandising Catalog)	Average Monthly Ad Cost: ($650) x Two Ads Annual + Annual Ad Development Cost: (Photography + Camera Ready Art Work = $1000)	2300	
E-retail	Not Applicable	0	
Foodservice Distributer	Average Monthly Ad Cost: ($650) x Four Ads Annual + Annual Ad Development Cost: $200	2600	
Institution/Restaurant	Not Applicable	0	

Food Show Participation Calculation	Formula	Chain Cost	Notes
Retail Direct	Not Applicable	0	
Retail Distributer (Monthly Merchandising Catalog)	Booth Cost: $2500 x Two Time Annual + Travel Costs: $750/person (Transportation, Hotel, Meals (Depending on Location)) x Two Times Annual + Cost of Product Used During Show ($300)	8300	
E-retail	Not Applicable	0	
Foodservice Distributer	Booth Cost: $2500 x Two Time Annual + Travel Costs: $750/person (Transportation, Hotel, Meals (Depending on Location)) x Two Times Annual + Cost of Product Used During Show ($300)	8300	
Institution/Restaurant	Not Applicable	0	

In-Store Prodcut Demonstration	Formula	Chain Cost	Notes
Retail Direct	(Industry Average Hourly Demo Charge($25) x 6 Hours per demo) x Number of Stores + (Cost of Product Used x Number of Stores)	2850	Assumes: Third Party demo-service employed; demos at 16 stores; $75 worth of product used per demo per store
Retail Distributer (Monthly Merchandising Catalog)	(Industry Average Hourly Demo Charge($25) x 6 Hours per demo) x Number of Stores + (Cost of Product Used x Number of Stores)	15450	Assumes: Third Party demo-service employed; demos at 100 stores; $75 worth of product used per demo per store
E-retail	Not Applicable	0	
Foodservice Distributer	Not Applicable	0	
Institution/Restaurant	Not Applicable	0	

Appendix 3

Input and Processing Cost Calculations

Input Costs		$$/Lb.	Number of Lbs.	
Live Weight	Price paid to coop member	0.5	250	
Hanging Weight Shrink	.50 lb live weight price/ hanging weight equivalent	0.704225352	123.2394366	
Dressing	List price	0.12	30	
Cut, Wrap, Freeze	List price	0.33	40.425	
Processing Shrink	1 lb hanging/dressed meat/.7 processed equivalent	1.64889336	122.5	
Total Input Cost		1.580934176		
Total Hog Processing Cost			193.6644366	
Estimated Yield	250 lb live weight hog yeilds 122 lbs processed meat.			
Cuts From Processed Meat	Number of Pounds Per Hog			
Ham	20			
Chops	25			
Roast	30			
Ribs	8			
Tenderloin	2			
Subtotal	85			
Remainder to Brats	37.5			
Estimated Yield	Live Weight: 250 lbs			
Processed Meat Remaining	122 lbs			
Cut	**Lbs per Hog**	**Wholesale Price/Lb**	**Revenue**	
Ham	20	$2.05	$41	
Chops	25	$2.75	$69	
Roast	30	$2.05	$62	
Ribs	8	$2.00	$16	
Tenderloin	2	$2.88	$6	
Subtotal	85		$193	
Remainder to Brats	37.5			
Whole Hog Processing Cost	$193.6640			
Revenue Received From Other Cuts	$193			
Net Processing Cost	$0.66			
Pounds Of Brats	37.5			
$/lb Base Brat Processing	$0.0177			
BRAT PROCESSING COST		Base Cost/lb	Specialty Processing/Lb	Total Cost/lb
Factoring for sales of other cuts	(Total hog processing cost - revenue received for remaining cuts of hog divided by pounds of bratwurst) + specialty processing charge @1.05/lb.	$0.0177	1.05	1.06770667

Works Cited

Barret, Stanley. Membership Director, Food Distributors International, Falls Church, VA. Interview by author, December 12, 2000.

Brienza, Judith E. "Bringing It All Back Home: New Generation Cooperatives." Unpublished, 1996.

Burger, Paige. Regional Sales Manager, The Pillsbury Company. Interview by author, November 14, 2001.

Feenstra, Gail W. 1997. Local food systems and sustainable communities. *American Journal of Alternative Agriculture*. 12(1): 28-36.

Food Institute. "Efficient Food Service Response." *Food Institute Report*, April 3 2000.

Harper, Roseanne. "Home Advantage." *Supermarket News*, January 3, 2000.

Lo Bosco, Maryellen. "Eating Out At Home." *Supermarket News*, December 6 1999.

Rao, Akshay R. and Humaira Mahi. "Slotting Allowances: Empiracal Evidence on Their Role in New Product Launches." Working Paper, The Retail Food Industry Center, University of Minnesota, 2000.

Ross, Nancy J. Molly D. Anderson, Jeanne P. Goldberg, Robert Houser, and Beatrice Lorge Rogers. 1999. Trying and buying locally grown produce at the workplace: Results of a marketing intervention. *American Journal of Alternative Agriculture*. 14(4): 171-179.

US Department of Agriculture (USDA), *Contribution of the food and fiber system to the US economy*, Economic Research Service (ERS), Washington DC, 2000a.

USDA. *Food Marketing and Price Spreads: USDA Marketing Bill*, ERS, Washington DC, 2000b.

USDA. *Food Market Structures: Food Retailing and Food Service*, ERS, Washington DC, 2000c.

USDA. *Food Market Structures: Food Wholesaling*, ERS, Washington DC, 2000d.

USDA, Food Safety and Inspection Service, Office of Policy, Program Development and Evaluation, Labeling and Consumer Protection Staff. FSIS 7234-1. Washington DC, 1997.

U.S. Food and Drug Administration, Center for Food Safety & Applied Nutrition. Food Labeling Guide. Washington DC, 1994 (Revised June, 1999).

Vosburgh, Robert. "Greetings From The Produce State." *Supermarket News,* October 30 2000.

Weir, Tom. "Slotting in the spotlight." *Supermarket Business,* July 15 2000, pp. 1, 10-14.

Weiss, David A. and Bruce Corson. *How To Get Your Product Into Supermarkets.* New York: Packaged Facts, Inc., 1996.

Westgren, Randall E. "Delivering Food Safety, Food Quality, and Sustainable Production Practices: The Label Rouge Poultry System in France." *American Journal of Agricultural Economics.* 81(5): 1107-1111.

Yin, Robert K. *Case Study Research Design and Methods.* Thousand Oaks: Sage Publications Inc., 1994.