Agribusiness & Applied Economics Report No. 594 **September 2006**

The Development, Operation, and Dissolution of a Value-added Cooperative: United Spring Wheat Processors

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Acknowledgements

The author expresses appreciation to the North Dakota Association of Rural Electric Cooperatives, the North Dakota State Agricultural Experiment Station, and the Quentin Burdick Center for Cooperatives for funding this report. Gratitude is expressed to the former members and employees of the United Spring Wheat Processors cooperative who responded to requests for interviews and information. Appreciation is also expressed to Mr. Bruce L. Dahl, Drs. F. Larry Leistritz, William E. Nganje, and William W. Wilson for helpful comments during the development of this manuscript.

The author accepts responsibility for any errors or omissions.

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Table of Contents

Page

List of Table and Figures

Executive Summary

The United Spring Wheat Processors cooperative was formed in 1996 as a value-added processor of hard red spring wheat. Wheat growers in Montana, North Dakota, South Dakota, and Minnesota formed the cooperative in order to obtain greater returns than from marketing wheat as a commodity alone. The cooperative obtained equity from members in a series of three funding drives. After the first two drives, it purchased a bakery facility in McDonough, GA, and refurbished it for entry into the par-baked dough market.

The idea of the cooperative was first proposed in 1996, with over 4,000 growers expressing interest. Over 3,000 ultimately invested at least $4,000 each in equity. At least $20 million was raised over the three equity and single financing drives, which was used to finance the development of a business plan, acquire assets for production, and conduct baking operations. The cooperative remained operational through 2003.

The cooperative enjoyed some very substantial success. The cooperative entered the market for par-baked dough products during a period of growth in the market, attracted sizeable customers, and developed and executed an identity-preserved grain marketing program. These achievements helped the cooperative progress toward its goal of providing a value-added market for the sale of member-produced hard red spring wheat.

The cooperative stopped operations due to persistent equipment failures, which led to an inability to produce a steady supply of output of consistent quality and a depletion of equity. This problem may have been avoided by a more complete analysis of how adopting a new technology would affect the likelihood the cooperative would achieve profitability. The circumstances that led to the closure of the cooperative can be used to extract important lessons for future value-added ventures.

Abstract

The United Spring Wheat Processors cooperative was formed in 1996 as a value-added processor of hard red spring wheat. It obtained equity from members in a series of three funding drives, used to operate a par-baked dough baking facility in McDonough, GA. Though the cooperative achieved some substantial successes, it ceased operations in 2003 due to persistent technical failures. The circumstances that led to the closure of the cooperative can be used to extract important lessons for future value-added ventures.

Keywords: cooperative, spring wheat, business model, equity drive, par-baked dough

The Development, Operation, and Dissolution of a Value-added Cooperative: United Spring Wheat Processors

Gregory J. McKee[*]

1. Introduction

The overall goal of this case study is to explain the origin of the idea for the United Spring Wheat Processors cooperative, the strategies employed to raise money, the operation, and the shutdown of the enterprise. This report will describe the origin of the idea for the cooperative, its development strategy, the business plan and start of operations, and the shutdown phase of the United Spring Wheat Processors cooperative. It will also describe how its organizational type, a cooperative, affected any of these phases and how it subsequently related to the rest of the industry it participated in. It is hoped that a discussion of the events associated with this cooperative will provide a series of generalizable lessons which can be transferred to current and future cooperative ventures. The information presented in this report can be used to review the decision making process used to form and operate a cooperative and provide organizational and operating guidelines to others with a similar opportunity to form a cooperative.

This is a particularly interesting case to consider for two reasons. First, its approach to funding its business plan development and pre-operation phase was unique relative to other cooperatives previously formed. Through the use of a two-phase equity drive, the cooperative obtained enough money to conduct research on a business plan that would allow wheat producers in Montana, North Dakota, South Dakota, and Minnesota to participate in value-added production for its wheat output. This novel method of fund raising can be compared with other cooperative ventures to describe its effect on the planning, development, and operation of the cooperative. Second, the failure of the cooperative in 2003 was related only to mechanical failure and the incompleteness of the technical assessment of the baking technology used and not its business model or choice of incorporation structure. As such, the unique and generalizable aspects of the formation, operation, and dissolution of a cooperative can be used to benefit other value-added processing ventures.

The initial plans for a value-added processing venture owned by wheat growers were first generated in 1996. After conducting its funding drive plan in 1996 and 1997, the cooperative presented its business plan to its members in 1997 and then started operations in its McDonough, GA, baking facility in 1999. The bakery facility was shut down in 2002, and the cooperative ceased operations in 2003, a result of unforeseen costs associated with complications in using novel equipment in the McDonough, GA, baking facility.

The cooperative was developed by several individuals, each of whom had substantial business experience and could lend expertise and leadership to the proposed cooperative. A CEO was selected. As many as 28 others served on the steering committee during the business plan

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development phase, each of whom had been associated with successful wheat and other commodity production and marketing enterprises in the region surrounding their residence. With the combined experience of these individuals, successful operations were anticipated by the eventual membership.

Though the cooperative established its headquarters in Fargo, ND, it solicited membership from hard red spring wheat growers in Montana, North Dakota, South Dakota, and Minnesota. The cooperative ultimately operated in the identity-preserved grain market and in the par-baked and frozen dough goods market. The cooperative served a useful role in both of the markets. First, the identity-preserved grain market was valuable because it provided profit opportunities associated with vertical differentiation. Second, the market for par-baked products was relatively unconcentrated and the steering committee believed that it could take advantage of economies of scale and become the low-cost producer and dominate the market for par-baked goods.

The steering committee was conscious of the need to utilize any comparative advantage associated with producing hard red spring wheat. This type of wheat has higher protein levels and stronger gluten, making it suitable for par-baked breads, which require higher protein levels in order to preserve quality. Since the upper Midwest produces a large volume of this type of wheat, the par-baked market was a natural fit.

In addition, technology also existed to take advantage of the identity-preserved grain market. This was important because it allowed the cooperative to market wheat to a handful of export markets, such as Spain and southeast Asia. The identity-preserved grain enterprise also utilized the cooperative's perceived ability to acquire high quality grain from members, through its ability to assess the quality of production from the farm to its ultimate sale.

The cooperative operated as a value-added marketer of spring wheat. It was successful in its ability to procure a steady and reliable supply of wheat and capital and to market quality-differentiated goods to a growing market. The steady supply of wheat allowed production to continue at a controlled scale, reducing costs associated with fluctuations in production. The ability to market quality-differentiated grain provided a second market which could be used to dampen small variations in the baking market. Finally, the growth of the par-baked and frozen dough markets provided an opportunity for value-added processing of hard red spring wheat.

Unfortunately, the operations phase of the cooperative revealed problems unrelated to these advantages. First, unanticipated costs associated with operating the largest bakery in the world made it impossible to ever achieve a scale of production that allowed the company to take advantage of economies of scale. Increasing costs associated with persistent equipment failure forced the company to sell its manufacturing assets. Second, the identity-preserved grain portion of the business was stopped in order to concentrate the remaining equity of the firm on the baking. Operations finally ended on December 3, 2003, followed by the sale of the cooperative's assets in 2004. The proceeds from the sale were used to pay debts associated with financing the cooperative had obtained. Members were notified of the effort to sell, but did not receive any proceeds as compensation for investment.

To achieve the overall goal of this report, this study has six objectives. The first objective is to describe the investment climate present in the Montana, North Dakota, South Dakota, and Minnesota wheat producers' market at the time the idea was presented. This is done by reviewing how the opportunity for investment was described and what potential investors believed they were reviewing, the importance of value-added industries in agriculture during the 1990s, the conditions of the wheat market when the idea originated, and the conditions of the par-baked and frozen dough product markets, which were the value-added opportunity selected in this case. The second objective is to recount the development strategy employed by the board of directors and steering committee in launching the United Spring Wheat Processors cooperative. This is done by reviewing how this cooperative was similar to or different from the development of comparable projects, how the steering committee was selected, the communications conducted between the company and its prospective members, and the initial request for funding.

The third research objective is to describe how the company evolved from the planning stage to operations. This is done by describing the cooperative's marketing strategies, methods for obtaining equity and financing, operation strategies, and methodology used to procure management. The fourth research objective is to discuss the period of operation and production. In this section, the financing requirements of the cooperative will be summarized, as well as its financial performance, adjustments to the operation over time, re-capitalization efforts, staffing, equipment and facility performance, and board and management actions to achieve profitability.

The fifth research objective is to describe activities taken by the board and management in the period of time after the conclusion was reached that the operation could not become profitable. To do this, investment values, debt, final agreements with debtors and shareholders, and the role the board of directors played in the shutdown process are summarized. Finally, the advantages or disadvantages created by the cooperative form of business, as applied to this case study, are presented. This includes a discussion of the most plausible reasons for the failure of the business, what actions could have been taken or avoided to insure profitability, and how these were related to the cooperative business model.

2. Methods

The research for this study was completed using the case study technique. Case studies are frequently used to explain "practice-oriented" problems or situations in which a sequence of events is explained using competing explanations. Like other types of research, case studies incorporate elements of problem definition, research design, data collection and analysis, and reporting, in order to provide a rigorous description of these competing explanations and to apply them to other situations (Yin, 1994).

Data collection occurred through interviews with former United Spring Wheat Processors personnel and members and examination of historical documents. The analysis and the unique and generalizable results are presented in a manner that facilitates its use by future participants in cooperative ventures and policymakers. It is anticipated that reading this study will present a set of unique and generalizable issues encountered by United Spring Wheat Processors which can be

transferred to other cooperative ventures. These issues will be extracted from analysis of the development, planning, operation, and shutdown phases of the cooperative. Based on the discussion of these phases of development, specific steps that could be taken under similar circumstances in order to prevent the failure of a similar enterprise are suggested.

3. The Origin of the Idea for the Cooperative

In this section, the investment climate present at the time the idea for the cooperative was presented is discussed. A brief discussion regarding the rationale for value-added processing ventures in agriculture is given. This is followed by a presentation of how the opportunity to invest in a cooperative that provided value-added processing for hard red spring wheat was described and what potential investors believed they were reviewing.

To identify what event or idea sparked the interest in the idea for the cooperative, a short discussion on trends in agriculture as an industry is worthwhile. For many years, the increasing industrialization in agriculture has been related to decreases in the share of retail food prices accruing to the farmer (Sexton, 2000; Gardner, 1975). As a response to these decreasing margins, agricultural producers are participating in more vertically integrated enterprises which, instead of producing bulk commodities, increase returns, or add value, to production by generating goods which are either designed for end consumption or as inputs to other end products. Cooperatives have participated in this trend as well (Cook, 1995).

The value-added processing fever led to the development of several cooperatives in the upper Midwest. Cooperatives which process raw farm goods into final or intermediate goods generally required large up-front investments, relative to the traditional cooperatives which accrued equity over time through equity retains or retained patronage dividends. Two prominent examples include the American Crystal Sugar Company, which was established in the late 1970s to generate refined sugar from sugar beets in the Red River Valley of North Dakota and Minnesota; and Dakota Growers Pasta Company, which began production of pasta from durum wheat in its Carrington, ND, facility in 1993.

As a result of increased revenues made available through value-added business opportunities, wheat producers became interested about developing opportunities to obtain increased revenues. The main idea motivating the start of the cooperative, as stated in the cooperative's 1997 information statement, was to "allow its members to receive additional value from the spring wheat they grow through the processing of that spring wheat into products which incorporate a significant value-added element "(USWP, 1997a). The goal, therefore, was to become the preferred supplier of value-added wheat goods manufactured with hard red spring wheat produced in the region. The cooperative believed that it could provide value at each step of the supply chain between members and consumers. The cooperative perceived the steps in the "supply chain" as the following: (1) members-to-elevators: grain origination and wheat merchandising services; (2) elevator-to-milling: flour merchandising; (3) milling-to-baking: frozen dough and par-baked products; and (4) baking-to-retailing: multi-unit retailing.

As a separate operation for the cooperative, the planners of the cooperative noted that identity-preserved wheat could be marketed based on the ability to differentiate the wheat quality and receive premiums for relatively good quality grain for its members. The idea even addressed the issue of trade in genetically modified wheat. As with other genetically modified foods, some countries would refuse to import genetically modified wheat were it to be produced commercially. In an effort to preserve the marketability of the members' wheat, in May 2002, United Spring Wheat Processors signed an agreement with Monsanto to keep "genetically modified products separate in the marketplace…" (Pates, 2002a). Monsanto had "come to the conclusion that a system of segregation and identity preservation holds the promise of a very important part of getting the benefits of biotechnology established in the wheat market" (Pates, 2002a). The genetically modified wheat could then be used to produce vertically differentiated characteristics (or quality differentiated), such as "[offer] better nutrition or solve allergies" (Pates, 2002a), which could improve the profitability of wheat production relative to traditional commodity wheat farming. Despite early interest, however, Monsanto abandoned the commercialization of genetically modified wheat in 2004.

Although marketing opportunities were available in marketing identity-preserved wheat, the main business opportunity embraced by wheat producers was to supply to the par-baked and frozen dough products market. Information circulated by the cooperative indicated that demand for wheat bread products was strong and increasing. Since the 1970s, total flour consumption has increased over 73%, to 149 pounds per capita (USWP, 1997b),[1] and that flour-based products dominate the list of fastest growing bread products (USWP, 1997b). This growth was attributed to several factors. First, research indicated that consumers typically consumed only 3 to 4, instead of the 6 to 11, servings of grain-based products as recommended by the U.S. Department of Agriculture. Efforts to close this gap could be used by the baking industry as a marketing tool. Second, increased desire to consume grain-based products was becoming an integral part of a healthy diet. Third, an increased variety of convenient foods which use flour were being used to satisfy the consumer preference for spending less time producing food from basic ingredients. Fourth, growth was attributed to the increasing trend in favor of consuming meals outside the home, which require frozen products instead of scratch and mix in order to produce in a timely fashion (USWP, 1997b).

The leaders of the cooperative initially believed that by forming a cooperative in the four-state region, it would gain a comparative advantage. The cooperative's planners anticipated that by attracting members from among the high concentration of producers in the four-state region, it would be able to satisfy consumer demand in a reliable way. Therefore, one of the first actions done by the planners of the cooperative was to hire a team of economists to calculate optimal origination strategies for wheat in the Montana, North Dakota, South Dakota, and Minnesota area. In this study, the authors provided suggestions for optimal wheat procurement by discussing where wheat should be targeted for purchases, the tradeoff among different origination strategies, the cost advantage of relatively unsophisticated strategies which ignore the difference in grain quality across crop reporting districts, and which grain elevators would be best to seek relationships with for origination, with specific reference to their ultimate shipping to the bakery. By identifying the least cost areas for procurement, the optimal elevators were

[1] "Facts about United Spring Wheat Processors," p. 8, contains statistics labeled "per capita consumption," which shows an increase from about 110 to about 150 units between 1972 and 1996, a 36% increase from 1972 levels.

selected. The economists concluded that being able to purchase grain based on its location would generate savings in processing costs and increase the likelihood of meeting end-use requirements (Wilson, Dahl, and Johnson, 1999). Furthermore, the "locations of particular interest… for longer-term origination strategies" lied within the four-state region in which United Spring Wheat Processor members would be found.

At the time the cooperative was conceived, several changes were anticipated in its future competitive position as it would become more established in the market. In documents distributed to prospective members during the initial phases of formation, the cooperative stated that "the frozen dough and par-baked products market has been evolving quickly over the last few years … It is a market in transition…." The planners indicated that incumbent producers in the market respond to this trend by simply adding on to existing facilities, instead of accurately calculating the optimal location for facilities and building or acquiring them.

Two statistics describe the competitive environment in the par-baked and frozen dough industry. First, according to the U.S. Census Bureau (1997), there were approximately 2,764 establishments primarily engaged in manufacturing fresh and frozen bread and bread-type rolls and other fresh bakery products (NAICS# 311812) at the time the idea for the cooperative was presented to potential members. Second, according to the *Bakery and Production Marketing* magazine, there were over 331 frozen bakery manufacturers in the United States in 1997 (USWP, 1997a, b). The cooperative's planners anticipated that they could capture a relatively large share of the par-baked and frozen dough market by carefully selecting the optimal location for its firm, acquiring baking equipment that would allow it to produce at lowest cost, and then use its remaining equity and leverage its market share to build additional plants (USWP, 1997b).

Various planners of the cooperative believed there were at least three economic incentives for forming the cooperative in the four-state region that would give it a competitive advantage. First, having the large number of potential investors who were interested in a value-added venture for hard red spring wheat provided a large potential body of equity, with no particular burden on any one person or group. This, the planners believed, would enable the cooperative to operate independently of any financing restrictions imposed by banks and would enable the company to attract business by virtue of acquiring substantial capital prior to starting the business. Second, having a large share of the hard red spring wheat production in the membership area provided a steady supply of quantity and quality needed for anticipated production. This would allow the cooperative to produce at steady volumes throughout the production period. To asses the potential volume of wheat available from members for procurement, the cooperative conducted a survey of spring wheat growers asking what share of their wheat they would commit to value-added ventures in the five years between 1997 and 2002. The cooperative reported that, on average, growers were willing to commit 47% (USWP, 1996a).

Third, since the cooperative's membership could potentially be comprised of 93% (NASS, 2006) of all spring wheat harvested in the United States, the ability to secure a reliable and steady wheat supply was, from a practical standpoint, only limited by random factors such as weather and disease incidence. By contrast, hard red spring wheat producers outside the four-state region, such as in Colorado, Idaho, Nevada, Oregon, Utah, Wisconsin, Wyoming, and Washington, which produced a combined 7% of U.S. harvested spring wheat in 1996, would be

at a relative disadvantage to the production volume of the four-state region since they would have to engage in their own smaller-scale marketing efforts.

As an alternative explanation to establishing a value-added venture, one could ask if any other production or consumption conditions in the market for hard red spring wheat were related to the formation of the cooperative. One possibility is permanent changes in production costs. Although the author is unaware of any significant declines in the cost of production during this period, changes in processing technology did occur. These, however, were endogenous to the creation of the cooperative. The cooperative intended to commission the fabrication of the largest oven in the world, which would allow it to produce a relatively large volume for a single plant. The board identified an oven manufacturer in France to construct this equipment. Though data are not available to compare the cost per unit of production from average par-baked and frozen dough facilities with the ideal cost per unit from the new equipment, since the fixed costs of production were to be averaged out over relatively more production than any other participant in the industry, that the cooperative intended to take advantage of scale economies created by the new technology. Hence, the change in processing was endogenous; technology changed because the company existed.

Another possibility is that growers responded to sudden changes in acres of wheat planted. As shown in Figure 1, harvested acreage of spring wheat in the United States was steadily climbing as a whole. Among the four states considered in the prospective membership, North Dakota and Montana were steadily increasing in harvested acreage prior to 1996, with increases of 66% and 71%, respectively, over 1985 production levels, while South Dakota and Minnesota remained relatively flat, with both increasing harvested acreage by only 5% relative to 1985 production levels. Since membership was contemplated in both relatively high and low growth areas, it does not seem likely that the growers tried to develop a domestic market for a sudden increase in production.

A final possibility considered in this report is that growers responded to a sudden change in yield per acre. It would, again, make sense to look for opportunities to market wheat at increased prices if yields had increased dramatically relative to previous levels. As seen in Figure 2, the yield for spring wheat was not trending upward. This suggests that the formation of the cooperative was not done in response to sudden changes in yield.

Thus, although the anticipated change in technology helped improve the cooperative's expected competitive position, there were no changes in the historical relationship between yields, acreage, or production costs which accompanied the formation of the cooperative. Hence, there were no changes in the economic conditions associated with producing hard red spring wheat which suddenly made it easier for the cooperative to supply large amounts of wheat relative to competing varieties, let alone those which might have been easily substitutable for flour in par-baked products.

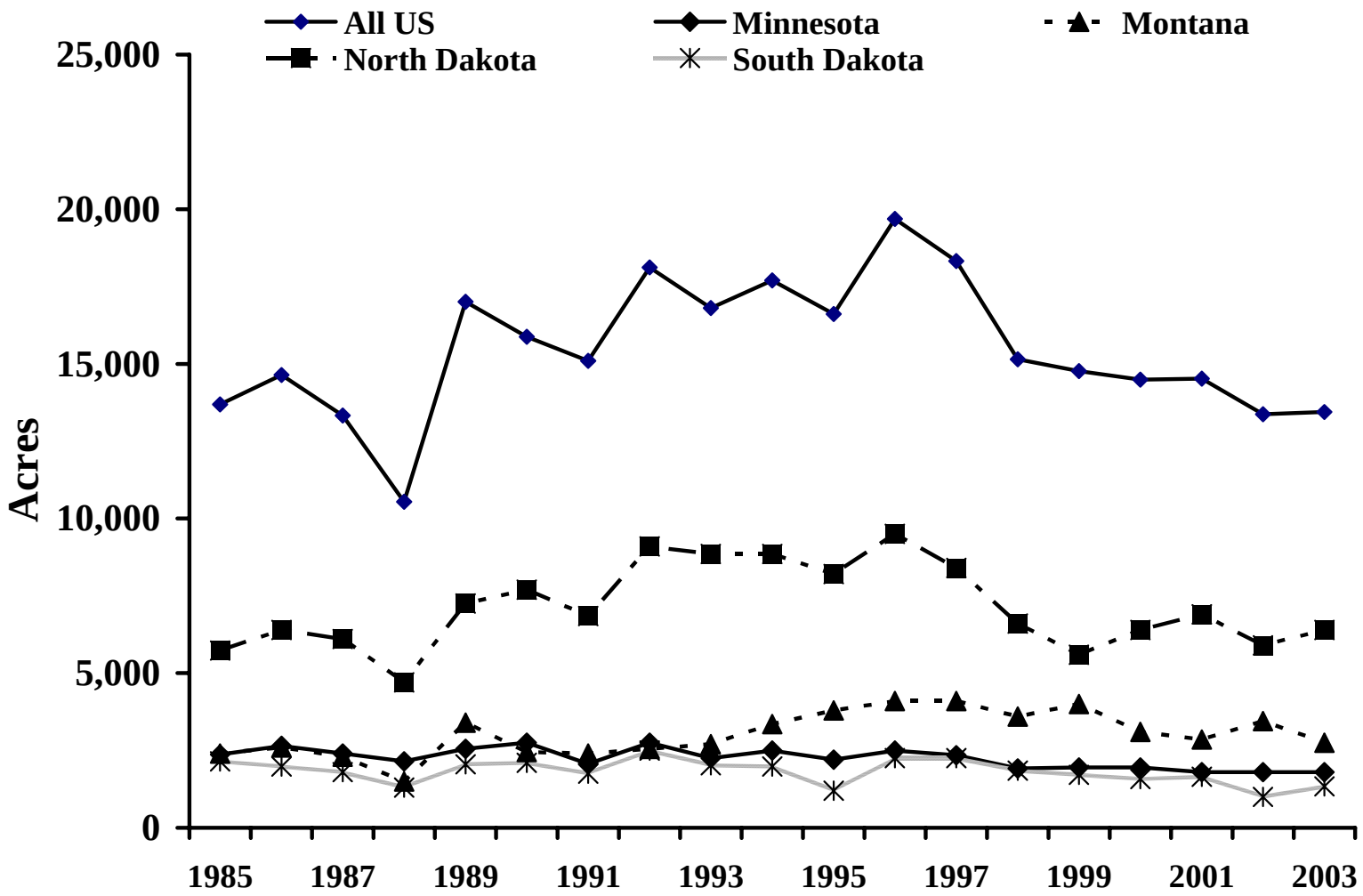

Figure 1. Annual total harvested acreage of spring wheat, for all United States and selected states, 1985-2003. Source: NASS, 2006.

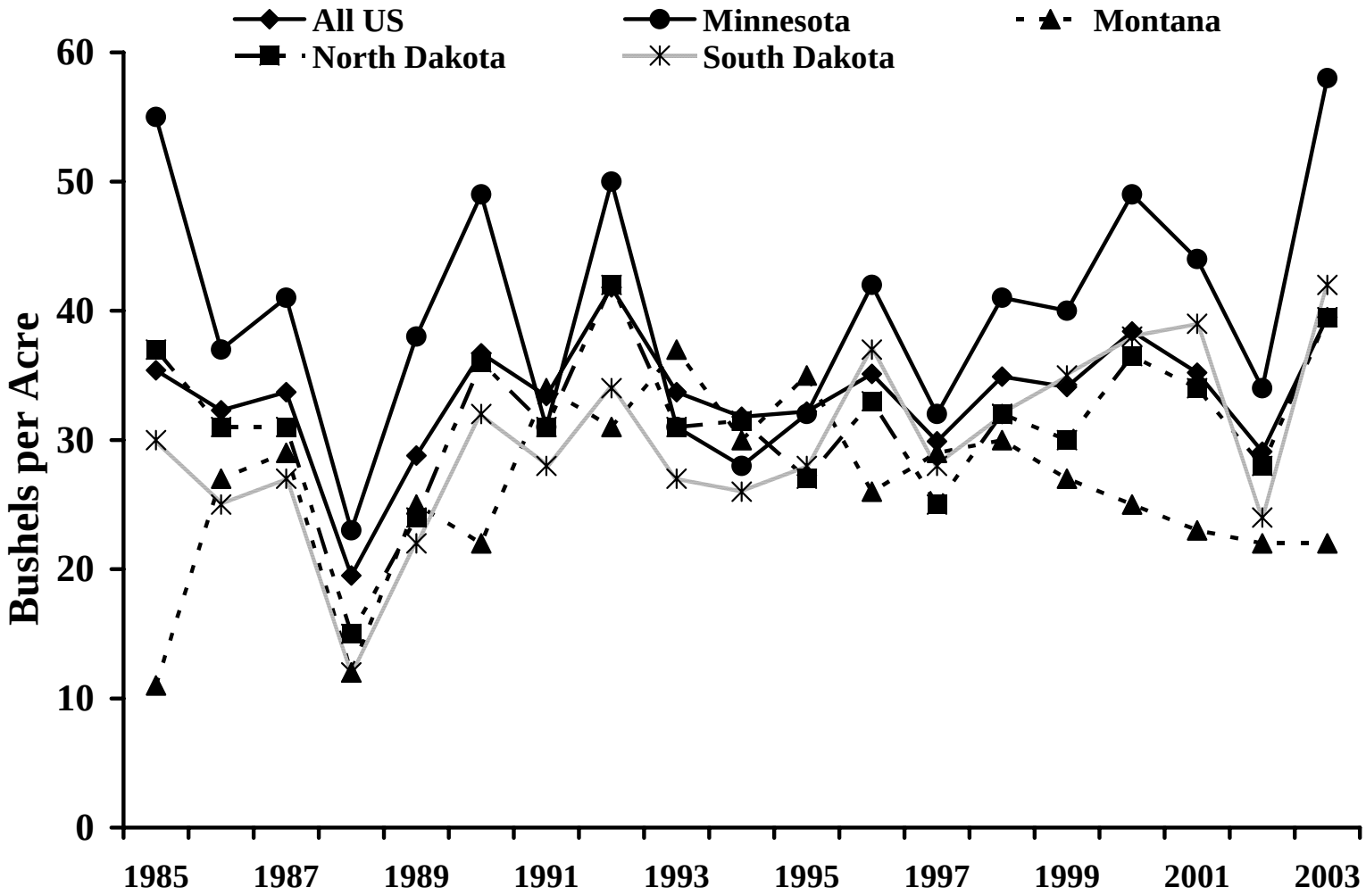

Figure 2. Annual yield of spring wheat, for all United States and selected states, 1985-2003.
Source: NASS, 2006.

4. The Cooperative's Development Strategy

In this section, the development strategy employed by the steering committee and board of directors in launching the cooperative, why the cooperative business form was selected, how the formation of the cooperative was the same as or different from preceding development of similar projects, and how the development of the cooperative was perceived by the potential membership, are discussed. The sequence of events between the first announcement of the potential formation of the cooperative and the success of the cooperative's first request for funding, a seed money drive used to fund organizational expenses, and the development of a feasibility study, are also presented.

A group of spring wheat growers from the four-state region formed to investigate the possibility of a value-added enterprise in the par-baked dough products market. It was anticipated that a product market could be identified in which spring wheat-based products would play a dominant role (USWP, 1997a). Given the geographic concentration of spring wheat growers in the four-state region, it was believed that participating in such a product market would provide a comparative advantage to regional growers, as previously stated. Though the initial planners of the cooperative had not concluded that the par-baked dough product market would definitely be the focus of a value-added venture for marketing member wheat, several interviewees indicated that it was recognized as an attractive possibility from the beginning.

The par-baked and frozen dough market was described by the cooperative as follows. "Almost anything that is first mixed into dough can be shaped into its final form, and then frozen. At the point of consumption, the dough is allowed to thaw-out, rise, and is then baked into a finished product. In addition to bread, other examples of frozen dough products include cake, muffins, pie crust, and pizza crust. Par-baked products take this concept a step further. In the case of bread, the dough is mixed, shaped, and allowed to rise. The dough is then partially baked to between 70 and 90 percent of the total baking time, and then frozen. Again, the product goes through its final baking at the point of sale or consumption. This final bake gives the customer a fresh, hot, visually-appealing product" (USWP, 1997b). "The planners targeted the market for "high quality crusty European and specialty bread products" (USWP, 1997a). Documents from the cooperative indicate that they projected this product market to grow at 5% per year between 1997 and 2002 (USWP, 1997b). Customers would include in-store bakeries at grocery stores, food service operators and distributors (restaurants, institutional feeders), and retail bakeries (USWP, 1997b).

Hard red spring wheat is particularly useful for par-baked and frozen dough products because "of its high protein and gluten strength. Dough made from spring wheat flour is able to stand-up to the mixing, handling and freezing process, and the final bread product maintains its high quality characteristics. [In contrast], dough made from wheat with lower protein and gluten tends to break down and not rise properly, resulting in inferior product quality" (USWP, 1997b).

Growth was anticipated in the market for par-baked and frozen dough prior to the start of the cooperative. When performing analyses of the western and southeastern areas of the United States for optimal plant location, assumptions of 5% growth per year for frozen dough products and 15% per year for par-baked products were integrated into the final recommendations

(Wilson and Janzen, 1998). Research suggests that shipments of refrigerated and frozen dough and batters (SIC 20415 and SIC 20450 combined) grew by 20% between 1987 to 1996, which led up to the period during which the cooperative was contemplated (Holcomb and Rayas-Duarte, 2004).

It is interesting to ask why the group decided to form a cooperative, instead of some other legal structure, such as a partnership, limited liability partnership, or a limited liability company. A partnership is an incorporation option in which two or more people own and control a business, but dissolves with death of the owners. A limited liability partnership is like a partnership, but provides some liability protection to those who participate in the business. Limited liability companies are not corporations, but the participants enjoy personal liability from the suits addressed to the business, allow unlimited types of organizations to become owners of the business, and have the advantage of flow-through taxation, similar to the cooperative structure.

The reason may lie in the historical precedent for similar value-added ventures in the four-state region. A series of recent successes in establishing cooperatives generated momentum for the idea of another cooperative geared to value-added production of hard red spring wheat. Several interviewees indicated that after the success of the American Crystal Sugar Company, which processes sugar beets into refined sugar, and the Dakota Growers Pasta Cooperative, which processes durum wheat into pasta products, it was largely believed that it was time that hard red spring wheat, a commodity widely produced in the area, receive attention or focus in its own value-added venture. Several interviewees indicated that it was always considered that this value-added venture into marketing products made with hard red spring wheat would be farmer-owned, and that the decision to use this type of corporation was based on their previous experience with these successful ventures. The interviewees also indicated that they expected that the planners had learned from, and would be able to improve upon, the recent failures of other cooperatives which had failed just prior to this time.

The cooperative model was finally selected based on the belief that by being member-owned, they could remove “disconnects” in selling wheat. It would be able to control the quality of production and sell it not as a commodity, but rather as an ingredient to a product used for final consumption. This, the group felt, would eliminate operational inefficiencies, out-of-position plants, product quality control problems by coordinating wheat production standards from the farm to the bakery, inventory problems, and distribution plans out of synch with customer demand (USWP, 1997b).

Another reason to select the cooperative business model was to take advantage of certain tax benefits. “Under subchapter T [, section 521, of the federal income tax code, a] cooperative can deduct from taxable income non-patronage income distributed to patrons on a patronage basis and dividends on capital stock, in addition to qualified patronage refunds and per-unit capital retains” (Royer, 1989). By selling hard red spring wheat, the cooperative met the requirements to qualify for section 521 status. To qualify for this status, a cooperative must (1) be an organization formed to market farm supplies, (2) have at least 85% of the voting stock owned by the agricultural producers who market through the cooperative, (3) limit dividends on capital stock to 8%, or the legal limit of the state, (4) maintain financial reserves at or below the

level required by law, (5) have at least 50% of business done with members, and purchases for people who are neither members nor producers cannot exceed 15% of total purchases, (6) treat non-members the same as members with respect to business transactions, and (7) keep records of patronage and equity of each member (Royer, 1989). By meeting these conditions, the cooperative could save the money associated with filing with the SEC for permission to issue capital stock. The cooperative took advantage of this exception soon after its incorporation.

In addition to the tax advantages of operating as a section 521 cooperative, the planners also took advantage of exemptions provided by the Securities and Exchange Commission to this type of cooperative. The Securities and Exchange Act of 1933 requires that a substantial amount of detail be included when submitting an application in order to approve an issue of stock and its accompanying prospectus. Because of the level of detail associated with completing the application, and the vital role of an attorney in assisting the applicant in successfully completing the process, the expense associated with the application can be substantial. The Act grants, however, an exception to the requirement to file a business prospectus if a corporation is a farmer-owned cooperative with section 521 tax status.

There was, however, no historical precedent for a cooperative in the par-baked and frozen dough market, according to former members and staff. The cooperative model, planners perceived, would take advantage of the fact that members would interact directly with the firm and, therefore, could be enticed to provide farm-specific wheat quality data, allowing control of the production process from the farm to the freezer. This was anticipated to be seen as an advantage by some customers of the bakery since it provided a reason to believe that product quality was more likely to be consistent given that the cooperative could access the best quality grain more easily than those operating under an alternative business model. In addition to this benefit from being a cooperative, some of the interviewees indicated that the farmer-owned cooperative concept was sufficiently uncommon that the idea of working with farmers attracted the attention of other groups. To that end, the cooperative was incorporated on March 5, 1996 (USWP, 1997a) and called itself United Spring Wheat Processors.

In order to proceed with the venture, two formal, but separate groups were formed. A committee of ten growers first met in 1996. Its members had previous experience on cooperative boards of directors in other operations. The initial mission of this group was to secure funding for a future value-added business venture. This was done so as to generate a corpus of funds from which they could finance activities associated with developing a business plan. A second concern was to then develop and execute a business plan (USWP, 1997b).

The second group, called the “steering committee,” was a team of 28 wheat growers scattered throughout North and South Dakota and Minnesota. While not directly involved in the planning of the cooperative’s operations, this group helped encourage support for the idea of the cooperative through personal notoriety among nearby growers. Ultimately, this support was designed to encourage local growers to attend local membership recruitment meetings, which the steering committee members organized. Ultimately, each member of the committee formed their own opinion about the potential success of the cooperative, with some never contributing more than an initial minimum amount, while others eventually became members of the board of directors.

The members of the executive and steering committees had varying levels of experience with cooperatives, ranging from membership and management, to experience with other forms of ownership. As a whole, the group considered itself experienced enough with the cooperative business model to believe that it understood how to develop one, to utilize the relative advantage the cooperative model enjoyed (such as user and owner benefits), and to publicize their experience effectively enough to convince members to join the cooperative and become a reliable producer of par-baked dough products.

The committees began to approach growers of hard red spring wheat to learn their disposition towards the idea of a value-added venture. This was done in a series of at least 24 meetings between March 7 and April 10, 1996, in North Dakota, and Minnesota. Bankers were invited to 4, and growers to the rest. Since the committee members intended to only approach agricultural producers as members, as discussed above, only growers who had the capacity to produce spring wheat were approached. Outside of the steering and executive committees, the author knows of no one who was approached about the investment opportunity until the first round of seed money meetings.

During meetings across the four-state region, the status of the market for baked wheat products, the amount of production in the four-state region, the popularity and success of value-added ventures, and the anticipated success of a farmer-owned cooperative taking advantage of a value-added opportunity for spring wheat was presented. A typical meeting was started by having the local steering committee member introduce a member of the executive committee who would provide an overview of what was happening in the wheat business, milling, bread manufacture, and bakeries. This was then followed by a discussion of the possibilities in a value-added venture.

During these meetings, wheat growers were also invited to become members of the future cooperative. This was to be done in two steps. First, the prospective member was invited to contribute a non-refundable investment of $200 which would be used to finance the organization of the cooperative and its development of a business plan and feasibility study. These contributions were originally to be collected by April 30, 1996, but later changed to May 1, 1996, after an error in the press. [2] By contributing $200, the grower would then have the opportunity to make an additional investment of $4,800 to provide equity for the cooperative, making a total investment of $5,000. The request for the second set of money was to be made contingent on the successful completion and presentation of an acceptable business plan to the prospective members in the fall of 2006. Furthermore, the cooperative set a goal of a minimum of 2,000 investors to show support for the project.

Several former members described these meetings as very professional, upbeat, and informative. Questions were allowed from the audience, and many potential members left the meeting excited about the opportunity, although a handful of respondents to this study reported disappointment with the idea either because of differences between their preferred business

[2] The original deadline was set for April 30, 1996. However, an AP report about the cooperative that was circulated in the membership area indicated that the deadline was May 1, 1996. The cooperative executive committee agreed to accept contributions that were postmarked by May 1 in order to accommodate the error in the AP report (USWP, 1996c).

practices and those proposed by the cooperative, or hesitation as a result of recent previous failures of other cooperative ventures attempted in the region.

The financing was to take place on the following schedule (USWP, 1996b):

> "March 1, [1996]: Framework for USWP formed."
> "March 11-13, [1996]: Briefing about the project to area lenders."
> "March 13-15, [1996]: Grower meetings in which an initial $200 membership investment will be requested from each grower."
> "April 30, [1996]: Deadline for $200 initial investment."
> "August-September [1996]: Distribution of prospectus/disclosure documents."
> "Fall [1996]: Collect remaining $4,800 investment from each member."

The cooperative then set a deadline of September 30, 1999, to "bring a spring wheat processing project forward" and that generating the capital first would generate the "best potential for establishing a profitable value-added business" (USWP, 1996b).

Upon leaving these meetings, interviewees indicated that prospective members knew there was not a defined plan of business at this point. Prospective members were impressed with the idea of getting hard red spring wheat growers together to work on some sort of project, and to enter some product market with a large enough scale to immediately gain a relatively large market share. A handful of people, however, were skeptical about the success of the cooperative, but only in that it was a new, unproven business and it stood to reason that it was as likely to fail as any other new business.

Thousands of growers attended the informational meetings across the four states. The distribution of members was reported as 57% from North Dakota, 38% from Minnesota, and 5% from South Dakota (*The Forum*, 1996). On May 9, 1996, it was reported that 4,225 had paid $200 in seed money by the April 30, 1996, deadline, totaling $845,000. In a November 6, 1996, press release, the company revised these numbers to indicate that over 4,300 spring wheat growers had contributed seed money by the May 1, 1996, deadline for Minnesota, North Dakota, and South Dakota. Montana growers had until December 15, 1996, to contribute (USWP, 1996d). This exceeded the goal of 2,000 members for the project. The $200 payment, denoted "seed money," allowed each person the opportunity to invest the additional $4,800 and become a member of the cooperative. If all of these had ultimately participated, an escrow fund of over $20 million would have been generated. The sum of the $200 payments was used to generate interest which would fund operational expenses associated with development of a business plan.

This two-step approach to funding the start of the cooperative was described as unique by the interviewees. A traditional cooperative obtains its equity over time through equity retains and retained patronage dividends. In other cases, such as for American Crystal Sugar and Dakota Growers Pasta, a business plan is presented at first and then followed by an equity drive. In this case, a funding drive to generate funds for developing a business plan was presented first, with a commitment to publicize a more specific business plan at a later date. This was viewed with mixed reactions among the participants in the study. Those who remained with the cooperative throughout its lifetime agreed that it was a good idea to ask for money to assemble a detailed

business plan whose broad outline could then be presented and followed up with a request for investment. Among those interviewed who contributed seed money but did not remain with the cooperative, the reaction ranged from disagreement with advertising future requests for money without a business plan at the very beginning, to indifference about not having a business plan at the time future requests for money were advertised.

5. From the Planning to the Operation Phase

In this section, the evolution of the cooperative from the planning stage to operations is described. The marketing plan developed by the cooperative, its efforts to obtain equity, how management was hired, and how members reacted to these events is presented. The sequence of events after the request for seed money through the start of operations is also discussed.

With the apparent success of the first round of meetings, the original executive committee set an objective to generate a business plan for a value-added venture, present it to the prospective members, solicit funding for a closed cooperative, and then execute the business plan. During the meetings in which the board invited prospective members to provide seed money, the leaders advised that if the cooperative were able to approach groups, such as equipment manufacturers and prospective customers with sufficient capital, it would be seen as a credible entrant into the par-baked and frozen dough market.

To start the process of developing a business plan, the executive committee sought a suitable management team. The committee purchased the services of a management recruitment service. After its search, the cooperative hired its first president of the company in November 1996 (USWP, 1996c). Prior to working at the cooperative, the president had high-level experience in the wheat marketing industry. The cooperative perceived that the president's experience with business and market planning, knowledge of the food industry, experience with value-added product sales and marketing support, and strategic planning, would help it "advance [their] goals of bringing forward a large-scale value-added processing opportunity for …spring wheat growers" (USWP, 1996c). The first president worked with the company until July 2001 (Pates, 2002b). The president participated in the formulation of the business plan. In the minutes of the December 2, 1996, executive committee meeting, it was indicated that "a good business plan could be developed in ten to eleven months and that grower meetings could be held as early as October of 1997" (USWP, 1996e) to solicit equity for the business plan. The plan was eventually completed in August 1997 (USWP, 1997a).

The cooperative also employed several technical specialists to begin creating the business. Eide Helmeke PLLP provided accounting services. Doherty, Rumble, and Butler was retained for legal services. Other consultants included representatives of North Dakota, South Dakota, and Minnesota wheat growers associations, a rural development coordinator, a food industry consultant, and a representative from the St. Paul Bank for Cooperatives. Additional staff was hired in August 1998. This included a vice president of operations (Minnesota Association of Wheat Growers, 1998a); a vice president of sales; a plant engineer; a director of grain origination and merchandising; and a controller and director of administration (Minnesota

Association of Wheat Growers, 1998b). In fall 2001, USWP hired a chief financial officer (Pates, 2002b).

The marketing plan for the cooperative was described in four steps. The first was to procure wheat directly from the members. In order to assure sufficient procurement, delivery rights were stated in the shareholder agreement which required the cooperative to take delivery of wheat from members for use by the cooperative (USWP, 1997b). Each share of equity stock represented the right and obligation to deliver up to one bushel of wheat (USWP, 1997b). The delivery did not have to occur all at once, rather three delivery periods of four months each, with one-third of the obligation due each period. Members could deliver the product to any elevator. In its publications, the cooperative reserved the right to set standards for the wheat. If the grower's wheat does not meet the requirements, or the grower is unable to deliver the wheat, "the member may make provisions to acquire other wheat, or the cooperative will aid [them] in doing so" (USWP, 1997b). Interviewees agreed, however, that the cooperative did not reject wheat as a general practice. Once the grain was stored at the elevator, it was accumulated for delivery to a processing facility or merchandised at the elevator by the cooperative (USWP, 1997b).

The second step was to mill the wheat into flour. Cooperative documents indicated that there was no plan to build a mill at the outset, but rather to develop a "toll-milling (an arrangement whereby an existing mill processes the wheat into flour) relationship" (USWP, 1997a). Establishment of these relationships was done on the basis of cost and ability to produce a consistent quality of flour (USWP, 1997b).

The flour was then to be transported to a baking facility, processed, and then distributed to customers within the region. Interviewees stated that in its original contemplation of the cooperative, the executive committee considered building a new facility to bake the dough. Subsequent analysis demonstrated, however, that purchasing and refurbishing an existing facility would reduce costs.

The final step was then to distribute the processed product to outlets. The par-baked and frozen dough products were originally planned for "a variety of outlets on a regional basis." It even considered selling product through "multi-unit retailers – small bakery-oriented chains," which they would plan on building or partnering with (USWP, 1997b). The identity-preserved portion of the business was also thought to improve grower revenue, but this portion of the business was reluctantly abandoned when equity constraints forced the board to focus its financial resources on producing output.

The primary anticipated economic impact of this marketing plan for members was the value-added payment. Paying an above-market price for wheat delivered by the members to the cooperative was never seriously considered since the volume of wheat used as a final product or exported was insufficient to affect market price. The interviewees and cooperative documents indicated that the price paid to growers was to be based upon the current price offered by the elevator on the day of delivery. The payment was essentially an exchange of paper between the producer, elevator, and the cooperative, with payment to be received by the grower within 20 days after the cooperative received notification of delivery (USWP, 1997b).

Financial returns from this plan were expected to accrue to members through patronage dividends, which would be based on the patronage members contributed to the cooperative. Interviewees indicated that while higher prices for grain sold by members to the cooperative was a desired benefit by members, it was rejected in favor of paying the daily market price, and all financial benefits would accrue through dividend checks. Other benefits were to come through appreciation on equity investment. Returns as high as 6% were forecast. These forecasts also showed that if the cooperative expanded over the next five years as predicted, returns as high as 69%, relative to the initial amount paid for shares, would be earned by shareholders (USWP, 1997b).

With the marketing plan well under way, the cooperative turned its attention toward developing a plan to finance the necessary investments and operations. The cooperative expressly stated that it would use a "business development process different from what previous value-added cooperatives have used" (USWP, 1996b). In their prescribed media responses, the board indicated that "from the beginning we have always acknowledged that we had a new and unique approach to the startup of this business. It is essentially said we must have a significant show of capital to demonstrate to potential customers our commitment to getting into the wheat products business. Customers won't talk to potential suppliers that don't have money. With this strategy we remedy that criteria. Considering the size and importance of spring wheat in our regions; we have always felt that she should be able to stand on her own and develop her own business plan. With this level of membership and capital, we more than insure potential customers will take us seriously" (USWP, 1996f). The membership was to be built based on the $200 contributions to future membership. This was followed by a detailed information statement to the members, which each was to review, and then the cooperative would solicit a $4,800 investment, making a $5,000 total investment from each member. The $5,000 would be made available to the cooperative for three years "to decide what kind of processing business to pursue" (*The Forum*, 1996).

The cooperative also anticipated costs associated with planned operations. The cooperative analyzed various transportation cost scenarios from various grain sources to selected mills. Interviewees also indicated that the cooperative fully anticipated purchasing baking equipment which would enable it to produce a high volume of product upon commencement of operations. Although precise cost studies made prior to the operations phase of the cooperative were not available for this study, the cooperative anticipated that such equipment would generate decreasing average costs due to its proposed large scale of production. Available documents from the cooperative indicate that members were informed that the reason for such a large plant was because "the more wheat and flour that is moved though the system, the lower our per-unit cost structure will become" (USWP, 1997b).

The cooperative published a generalized list of expected expenses and preferred equity levels to inform investors about the opportunities available to the company at each level of investment. The following table details the anticipated use of proceed from the sale of equity stock (USWP, 1997a).

Table 1. Anticipated expenses associated with United Spring Wheat Processors' business plan

Category	Approximate Amount, in millions	
	Minimum Desired Total Investment	Maximum Desired Total Investment
Land acquisition and improvements	1.6	1.6
Facility construction	8.6	11.1
Equipment acquisition	9.8	13.6
Working capital	1.9	4.3
Total	21.9	30.6

Source: United Spring Wheat Processors, 1997a.

On October 15, 1997, the official information statement was distributed to its potential members. This statement included details about the equity offering, financial summary, delivery procedures, strategic plan, and information about the market for frozen dough and par-baked products.

In order to fund the expenses listed in Table 1, there were to be two types of stock available for purchase. First was the common stock. This was transformed from the $200 paid by a prospective member for a single share and rights to purchase equity stock later on. The second type of stock was the equity stock. Three pools of equity stock were proposed. First, pool one would allow between 800 and 1,600 shares per member at a price of $6.00/share. With a $4,800 investment in the equity fund, this would represent 800 shares at this price. Second, pool two would allow between zero and 50,000 shares per USWP member from shares remaining from pool one, with a maximum of 5,124,800 equity shares available, again with a price of $6.00/share. Finally, pool three allowed between 800 and 50,000 shares, from those remaining in pools one and two, by wheat producers who did not purchase membership stock during the original drive, met the requirements of USWP membership, and purchased a share of membership stock. In this case, the price would be $7.00/share. The deadline for purchasing stock was December 8, 1997. The $4,800 escrow deposit was the minimum investment required to become a member (USWP, 1997b).

Although the business plan the cooperative presented to prospective members was incomplete, it had little difficulty raising enough capital to meet its minimum goals. In the February 26, 1997, meeting, the board discussed the final results of its membership drive. "[By] February, 1997 the cooperative raised approximately $15,375,000 in escrow funds from prospective members, which … were deposited in an escrow account and income generated therefrom was used to enable the cooperative to develop a detailed business development plan" (USWP, 1997a). The plan was designed to provide members with an established market for the spring wheat they produce, the opportunity to receive a portion of the value-added to the wheat (USWP, 1997a).

Of the 4,770 people who invested seed money, 3,103 invested the minimum $4,800 amount, a 65% retention rate (USWP, 1997c). Among the four states in the membership area, North Dakota had the largest number of members, followed by Minnesota, Montana, and South Dakota (USWP, 1997c). There were several, nearly 600, who sent multiple seed money

contributions. These were more likely to remain with the cooperative (69%) and provide the entire $5,000 investment than were growers who made only a single $200 contribution to the cooperative (63%). Demand for investment opportunities persisted throughout the equity drive. In fact, the cooperative indicated near the close of its equity drive that those who might remain interested in obtaining stock at the same price as at the initial offering were to make that purchase “at this time” (USWP, 1996f). Those who abandoned their seed money contributions were described as part of the common trend for a share of people who indicate interest in a cooperative but never ultimately participate (USWP, 1996f).

At this point, it should be noted that the cooperative did not use any sort of financing to provide capital for its operations. All of the interviewees expressed their approval of the cooperative’s announced goal of funding the activity of the cooperative without any loans. After the end of the equity drive, none of the cooperative was financed due to the level of seed money and equity generated.

After the funds were deposited, the cooperative proceeded with its feasibility study. Note, again, that the first goal of the steering committee was to raise funds in order to create a business plan. Hence, no feasibility study was conducted regarding any business venture prior to obtaining equity for a business plan.

The executive committee held monthly meetings with the general manager and selected consultants to discuss technical details associated with its business plan. Among the topics of these meetings were baking processes, facility location, marketing strategy, legal issues associated with starting the cooperative, and planning the organization and dissemination of relevant information to members. Subsequent study was done on the feasibility of the par-baked venture. This analysis included technical advice from several sources and included information on the structure and growth of the par-baked goods market, competitors in the market, potential locations for processing facilities as determined by changes in demand and input costs, and available technology and processes for producing par-baked goods.

Perhaps the principal investment decision of the cooperative was its selection of facility location for its par-baked and frozen dough production. To assess the feasibility of spring wheat growers from the Montana, North Dakota, South Dakota, and Minnesota area of participating in the par-baked and frozen dough market, one must consider a major cost component: transportation costs. The first cost is associated with transporting the wheat to the processor. This was planned to be done using lower-cost unit trains which would transport wheat from elevators and terminals to the processing facility.

The second transportation cost is associated with delivering the processed product to the final customer. In this case, there were two options for the cooperative – ship wheat far and products close, or ship wheat close and products far. Since it is far cheaper to ship wheat to one or two distant central facilities than to ship processed products long distances to multiple locations, the steering committee selected a processing facility site outside of the four-state region.

The executive board considered several variables containing geographic and demographic information when selecting the location for its processing facility. Studies by Wilson and Janzen (1998) and Wilson and Lou (1997) considered alternative locations on the West Coast and in the southeastern states. In each study, they considered demographic data, "flour costs (including wheat procurement, shipping, milling margins, and millfeed credits), finished product distribution costs, and energy costs." When these were combined, the authors were able to "evaluate alternative location distribution strategies" and then evaluate the financial implications of such an operation (Wilson and Janzen, 1998).

The board considered the conclusions from the authors for each proposed area. In a preliminary assessment of the western states, the authors concluded that the distribution and flour costs were lowest in the Fresno, CA, area, but that average electricity rates for industrial customers favored the Seattle and Vancouver, WA, areas (Wilson and Janzen, 1998). The cumulative weight of their analysis suggested that Fresno had the lowest production costs of any western state, and had "the advantage of being between the largest market area (Los Angeles/Orange County, CA) and the fastest growing market areas (Pacific Northwest) in the West Coast region" (defined as Washington, Oregon, California, Arizona, and Nevada). The authors cautioned, however, that locating a plant in the Fresno area could be challenged by pre-emption by incumbent major competitors in the area.

In a preliminary analysis of the southeastern states, the authors concluded that Atlanta has the lowest costs of the area (defined as Georgia, Alabama, Florida, Tennessee, and Virginia) in terms of distribution, that other areas are similar in costs due to flour or electricity costs, but that the proximity of Atlanta to the "largest and fastest growing market area in the southeast region" has the greatest advantage in terms of location in the southeast. Again, however, the authors cautioned that locating a plant in the Atlanta area could be challenged by incumbent major competitors in the area, but that this would be weakened by their larger relative distance to the larger Atlanta market (Wilson and Janzen, 1998). This caution encouraged a secondary analysis of the western area. In this study, the authors expanded the western states area to include Idaho, Montana, Wyoming, Colorado, Utah, and New Mexico. The primary conclusion of this analysis was that when considering the size of plants, the excess demand, and the possible strategic actions of incumbent producers in the area, the western states region would be "more complex with respect to current and anticipated competitor forces and market/consumption patterns than the southeast U.S. market region" (Wilson and Janzen, 1999).

The evolution in the cooperative's goals for bakery facilities can be seen in two statements. In October, 1997, United Spring Wheat Processors continued to express a preference to build a "modern, high-capacity plant," designed to produce par-baked bread and frozen dough products (USWP 1997a). The second building phase would build a second plant for frozen dough and par-baked bread (USWP, 1997b). By September – October 1998, an already-existing facility had been found. The company indicated that it was its goal to start operations at a plant purchased in McDonough, GA, in the spring of 1999 (Minnesota Association of Wheat Growers, 1998a). In August 1999, the cooperative completed updates to its $20 million facility (Pates, 2002b).

Interviews with former members described that people were optimistic about the operation of the firm, and the first investment request was perceived as necessary to start operations. Members believed the cooperative was sufficiently capitalized such that it could achieve its goal of entering the par-baked dough market at a scale of production such that it would be successful in attracting and maintaining business.

6. The Operational Phase of the Cooperative

In this section, the period of time between start up and shutdown of the cooperative is discussed. This will include a discussion of the initial business results from the cooperative, the major customers it partnered with, its participation in the identity-preserved grain business, changes in its business plan, and hurdles the cooperative encountered.

Upon entry, the cooperative tried to establish itself in the par-baked dough market, as planned. The initial signals from the marketplace were very encouraging for demand for the cooperative's output. When asked if the cooperative needed to expend much effort on promoting the production from the cooperative, multiple interviewees stated that the cooperative needed to do very little to attract business. The interviewees indicated, in summary, that both its anticipated scale and, to a lesser degree, its status as a farmer-owned cooperative attracted business.

Several prospective customers were identified over the course of the life of the cooperative. Interviewees consistently identified Rich's Products Corporation as a major customer. Rich's manufactures and markets quality products including: toppings and icings, breads and rolls, finished desserts and cakes, pizza dough and sweet goods, and several other products (Rich's Products Corporation, 2006). It produces dough and bakery products at facilities throughout the world. At the start of 2006, Rich's Products Corporation had revenues of $2,500 million (Hoover's, 2006a), about one-sixth the size of Kraft Foods at the same time, and approximately 7,000 employees (Hoover's, 2006b). Interviewees also identified the Subway restaurant chain and distributors of frozen pizza crusts as potential customers. The interviewees indicated, however, that most of the business was transacted with the Rich's company.

The ability to attract such a large company could be viewed as a compliment to the cooperative's anticipated ability to produce large quantities at relatively low cost to the market. Alternatively, courting by such a large customer could have been a strategic action by the company to encourage its other suppliers to reduce its costs. The true reasons for the arrangement were not available. To commence this relationship, Rich's Products Corporation is reported to have agreed to purchase all the production the plant could produce, though an undisclosed minimum number was requested in order to provide sufficient supply to justify the continued relationship.

Demand factors affected the sales of the cooperative over time. When considered on a customer basis, interviewees indicated that there was steady demand for output of par-baked dinner rolls from a large customer. Other opportunities for production were sought for a second line of output, including prepared pizza products. Interviewees did indicate, however, their

impression that the low-carb diet craze, which was at its peak between 1999-2004, adversely affected sales and the cooperative's ability to compete.

There seemed to be little major influence on the cooperative's costs from market factors. Although no specific information was available from the cooperative about how changes in the price of wheat affected the source of supply or operations costs, none of the interviewees indicated that changes in costs affected its marketing or procurement decisions, outside of stopping the direct use of grain produced in the four-state membership region due to relatively high transportation costs.

It is unclear whether the timing of the cooperative's entry had any effect on the success of the cooperative. At the time the cooperative entered the industry, there were few large participants in the market. In this sense, the timing of the firm's entry was very conducive to securing a share of the market, since the demand for the par-baked products was expected to grow steadily after entry, and no supplier controlled the market. The cooperative's goal was to become a major supplier in the market by entering at such a large scale that significant cost savings could be realized relative to their competitors. The timing of the change in consumer preferences associated with the low-carb diet craze, was a negative factor in the timing of the cooperative's entry.

A change from the original business plan occurred due to transportation costs. Given the location of the processing plant in McDonough, GA, and the member grain coming from the upper Midwest, the advantage of concentrated production was ultimately unused and likely had no bearing on the fate of the cooperative. Transportation costs made it less expensive to purchase flour from a mill near the baking facility, which was made with wheat blended from both the membership and elsewhere, rather than to ship the wheat to a mill and then to a baking facility. Hence, the wheat origination model developed by the firm had nothing to do with the end product.

The management of the cooperative adapted to the changing needs occasioned by the hurdles its new technology posed. Changes in management occurred twice. The first change occurred in 2001. This change was advertised as taking advantage of personnel who were described as relatively better able to address "operational issues" (Pates, 2001b). The popular press describes that the co-op improved its "efficiencies" during the summer after this change (Pates, 2002b). At this point, the operations were described in terms of decreased waste from the plant and a consistent string of production records. In addition, demand was perceived to be strong, with demand in bread product markets growing 15-17% annually (Pates, 2001b).

The second change occurred in 2002. This change was done in order to oversee a change in production strategy, including producing for multiple customers, as opposed to one major customer, and to develop a private label for Spring Wheat Processors' products (Pates, 2002a).

In its original business plan, the cooperative leadership envisioned multiple plants producing par-baked dough products. In response to production challenges, the management of the cooperative also changed its focus on quick expansion to multiple plants. Leaders indicated that the company's "more immediate focus is profitability from our plant at McDonough, GA."

Though building multiple, new plants was still part of the business strategy, the focus shifted to the single plant (Pates, 2001b).

Over time, unanticipated difficulties associated with learning to produce at a large scale with relatively new technology appeared. The original intent of the cooperative was to take advantage of the proven vertical oven technology and use it to fabricate an even larger oven that would allow the company to enter the par-baked market at the largest scale in the industry. Unfortunately, since the vertical oven installed at the facility was the largest in the world, the effect of its size on baking quality was unknown. This ultimately became a problem for the cooperative which could not be overcome. These difficulties likely arose upon installation of the oven equipment. Anecdotal reports indicate that bread was cooked unevenly, the scoring was misapplied to the dough, and misalignments happened between parts which made the baking uneven. As a result of this persistent situation, the company indicated in 2001 that it "certainly [had its] work cut out for [itself] as [it tried] to increase …volume throughput at the …facility" (USWP, 2001).

These mechanical difficulties did not, however, cause the management to believe that the cooperative would not achieve profitability. The company set a goal to be profitable by April or June 2003 in meetings held at the end of 2002 (Pates, 2002a). Mechanical adjustments were often made to the equipment to overcome these difficulties, including replacing various parts. None of these remedies, however, allowed the plant to consistently produce an even quality of product. The company further responded to this difficulty by suspending the identity-preserved exports program in July 2001. Several interviewees indicated that in making these changes, the management demonstrated that it was qualified to react to the changes in production conditions.

It is likely, however, that production techniques were never mastered sufficiently to produce sufficient quantities to break even. Ultimately, the failure to find workable solutions to the uneven quality of dough produced by the oven led to three substantial changes in the cooperative's ability to conduct business. First, interviewees indicated that it led to the loss of contracts with incumbent and potential customers. Second, it affected the financing decisions made by the cooperative. Though the timing, amount, and terms are not available to the author, the interviewees and public documents indicate that the cooperative obtained financing from the St. Paul Bank for Cooperatives to help sustain operations. This marked the first time the cooperative chose to obtain financing.

Third, the failure to find workable solutions to output quality also affected the equity needs of the cooperative. When a workable solution to the problems with the oven could not be found with the remaining equity available from the original request, a second round of equity was solicited from the original group of members for the purpose of providing operating capital. This request was made during "a series of special meetings across" the four-state region in November and December 2001 (USWP, 2001). The reason for this request was directly attributed to the "longer than expected startup" which had been "very costly." The anticipated size of the supplemental investment was envisioned to be smaller than the original $5,000 investment. One report suggested that a minimum of $1,200, representing 600 shares of $2 each, would be requested of current members who desired to make a supplemental investment in this drive (Pates, 2001a). In the end, several individuals did contribute to this second equity drive. Groups

of “50 to 60” participated in 11 meetings for current members throughout Montana, North and South Dakota, and Minnesota between mid-November and early-December 2001 (Pates, 2001a). It was reported that the cooperative “raised $2.9 million, with commitments for another $4.2 million” (Pates, 2002a). Interviewees indicated that the second drive was perceived by both the board and by members as necessary to provide operating capital for the survival of the cooperative.

In the midst of these problems, no patronage dividends were ever paid to the growers. They did, however, have a market for their grain, though member grain was not exclusively used to produce the par-baked goods. Membership remained steady throughout the cooperative’s entire existence. In 1996, membership was reported at 3,000 members in four states (Pates, 2001b). By October 2001, reported membership was 2,800 (Kram, 2003).

7. The Conclusion of Operations

In this section, the shutdown of the cooperative, after the conclusion was reached that the operation could not become profitable, is described. Specific events include the eventual sale of the bakery assets and the possible economic impact of the shutdown on the Montana, North Dakota, South Dakota, and Minnesota area. A summary of the members’ investment value, the level of company debt, final agreements with debtors and shareholders, and the role the board of directors played in the shutdown process are presented.

The cooperative never ultimately became profitable. Due to the troubles associated with the baking equipment, it is likely that the bakery never was able to operate at positive margins per unit and equipment replacement costs became prohibitive. Interviewees indicated that problems with the oven technology were ubiquitous during the operation of the plant and that no steady level or quality of production could be made. As a result, existing customers selected other outlets for production, and prospective alternative customers declined to continue discussions with the cooperative for the same reason. Finally, on September 24, 2002, the board concluded that the operation could not become profitable and voted, via telephone, to stop operations (Pates, 2002b). The general body of shareholders was not involved in the shutdown decision.

On December 12, 2003, a letter announcing the cessation of operations indicated that the firm had been trying to sell its McDonough facility for at least a year prior to that date and that this had been explained in their “most recent newsletters.” During this period, the board attempted to reorganize by selling the assets of the cooperative or enter into a joint venture to continue operations. This would have given the cooperative the ability to either repay the bank and investors some share of their investment. Unfortunately, no sale had been made that generated enough “capital to warrant a continuation of the business,” or partner found that could generate enough capital to justify a partnership.

The debts accrued by the cooperative in order to preserve its ability to continue operations were repaid through the sale of its bakery. In April 2004, Flowers Foods, Inc. purchased the McDonough, GA, bakery facility from CoBank for an undisclosed amount. The

bank had taken possession of the facility in exchange for repayment of the loan it extended. The company expected to return it to production by the end of its 2004 fiscal year (Flowers Foods, 2005).

Many shareholders remained positive about the future of the cooperative through its end. Interviewees indicated that they were optimistic even through the second request for capital and remain convinced that the operation would have worked but for the failure to learn how to produce at such a large scale. Even sales of equity shares of the cooperative supported this optimism as prices ranged between $7.50 and $6.00 between December 1999 and February 2001, at or above the original offer price. However, by September 2001, immediately prior to the second request for equity capital, prices dropped to just above $2.50, and remained below $2.00 through 2002 (Alerus Securities, 2006). For the uninformed members of the cooperative, however, the shutdown came as a surprise.

The regional impacts of the shutdown were limited in the four-state membership region. First, prices paid by customers for frozen dough products across the nation were unaffected by the shutdown. Since it was a price-taking firm, and no steady level of output was ultimately produced, there could be no recorded impact on price. Second, one of the interesting features about the cooperative was that its baking facility was located outside the North Dakota area. As such, there was no real effect on employment levels in the area, except for the incremental impacts of extra services through identity-preserved grain operation, and the general management of the company who were employed at its headquarters in Fargo. Third, as confirmed by multiple interviewees, there is no indication that the shutdown of the cooperative affected the decision of any grower regarding how many acres of hard red spring wheat to plant. It can reasonably be inferred that the regional economic impact of the shutdown on wheat production in the four-state region would have been limited.

8. Lessons Learned from the United Spring Wheat Processors' Experience

The difficulties that United Spring Wheat Processors encountered during its operations can be analyzed for the benefit of other value-added processing or cooperative ventures. Although the exact production conditions were unique to this case, some of the difficulties are general in nature and can be used to prescribe steps for similar ventures to take in order to make profitability more likely.

There are several economic rationale for establishing a cooperative. When larger firms can operate at a lower cost than smaller firms, which occurs when economies of size exist, then there is an incentive to increase the output of a given product. A group of producers can take advantage of this by investing in capital to promote this expansion. Other reasons include providing a remedy for market failures, including unequal distribution of market power, and to assure a market for output or supplies for production. Cooperatives also form to take advantage of gains from coordination, such as when a group of buyers reduce production costs through joint investments in product delivery, reduced search costs for inputs, or decreasing the scope of some other decisions made by farmers (Schrader, 1989).

Another rationale for forming a cooperative is to take advantage of returns from production at a step in the marketing chain other than at the farm level. For example, a group of farmers may perceive that higher returns are available to production by processing raw farm commodities into intermediate or final consumption goods. In the case of United Spring Wheat Processors, a group of farmers invested in capital for an operation that would take advantage of higher returns by processing hard red spring wheat into an intermediate good, which was then prepared by a retailer for final consumption. Growers anticipated that their level of investment would be sufficient to obtain such capital and produce at a sufficient level to improve returns relative to producing wheat alone.

The first general condition to discuss, therefore, with respect to how the performance of the United Spring Wheat Processors and the cooperative business model are related is the advantages or disadvantages encountered given the company's cooperative status. The planners of the cooperative appeared to have intended from the beginning to take advantage of incorporating as a cooperative. The main set of reasons for this appeared to be financial. In the case of United Spring Wheat Processors, a large amount of equity was required to purchase a plant and equipment prior to the commencement of operations. The planners of the enterprise took advantage of the exemption provided by the Securities and Exchange Commission (SEC) to farmer cooperatives "that qualify for section 521 treatment from its registration and prospectus requirements covering the initial offer of securities" (Frederick, 2005). This reduced cost allowed the cooperative to present its incomplete business proposal to prospective grower-members during its 1996 round of meetings without having to prepare a detailed statement about the cooperative's finances, history, operations, products, risk factors, industry environment, and other information, though information was provided in its "Information Statement," released when the equity drive was conducted. Other financial benefits enjoyed by the cooperative were the prospect of pass-through taxation of anticipated profits and capital growth through anticipated retains of patronage dividends and a geographically concentrated pool of potential investors who produced the same commodity.

Other features of the company's cooperative status generated conditions which were neutral or negative. In what was initially perceived to be an asset to the production of quality output by the cooperative, the geographic concentration of wheat production among the membership was a neutral factor in the cooperative's ability to achieve profitability. The planners intended to take advantage of its anticipated ability to ensure quality wheat production by members. The cooperative believed that self-interested growers would take care to produce and deliver relatively high quality wheat. In the end, however, transportation costs eliminated the ability to use member-produced wheat exclusively. Similarly, the large amount of equity the cooperative was able to raise was beneficial to the company as a specific entity, but the ability to partner with other companies to market production, to procure top-quality inputs, acquire management skill and expertise, and develop a marketing plan, were not unique to being a cooperative.

A potential set of negative factors included the management expertise of members in the par-baked dough industry. The numerous unanticipated difficulties which occurred during the operations phase of the company's history were related to the equipment used. These may have been reduced by a more complete technical assessment of the baking technology used. The

choice to adopt relatively untested technology may have been related to the difficulty of transferring successful management experience at the farm level to a new type of enterprise in the par-baked dough industry.

The second general condition to discuss with respect to how the performance of United Spring Wheat Processors was related to the cooperative business model is whether the company's cooperative status was a plausible reason for its failure. As mentioned, the key difficulty encountered by the cooperative was its inability to get the plant operational. The failure of the newly developed oven technology to generate a consistent supply of quality product for customers led to the depletion of equity, sending the cooperative into bankruptcy. Also, it is possible that the unrelated market condition of the change in consumer preference towards a lower carbohydrate diet may have ultimately forced the cooperative out of the market due to its relatively high production costs, compared to operations with consistent quality production. As further evidence that the company's status as a cooperative was not a plausible reason for failure, was the willingness of the members to contribute equity in response to a second request in 2002. This illustrates the commitment of members to the investment made to capture relatively high returns expected in the processed commodity market, as discussed above.

The third general condition to discuss with respect to how the performance of the United Spring Wheat Processors and the cooperative business model are related is whether the set of actions that could have been taken or avoided to make profitability more likely were related to the company's cooperative status. Many options were available to the cooperative which could have increased the likelihood of profitability. In this discussion, those options which would have altered the circumstances which seemed to be the most likely cause of the failure of the business are considered: the aforementioned equipment difficulties. First, the cooperative could have borrowed capital at the beginning of its operations, in addition to the equity obtained from the members. This would have allowed the cooperative more time to address equipment difficulties it encountered throughout its operational phase. Second, the cooperative could have obtained guarantees from the oven manufacturer about its functionality, which would have provided guaranteed income when the equipment failed to perform as expected. Finally, the cooperative could have selected existing technology for its baking operation, instead of adopting new technology. This would have provided a greater likelihood of reliable output, though such a choice may have either been neutral or had a negative effect on its ability to attract customers given that its production scale was attractive to its customers. Since none of these options would have been feasible solely because the company was a cooperative, the ability to choose or avoid actions which would have made profitability more likely seems unrelated to its cooperative status. The experiences of this cooperative suggest that the selection of equipment and technology adoption should be carefully planned, evaluated, and executed. Adequate study about the reliability of the newly developed baking technology may have changed the anticipated likelihood of producing a steady level of quality output.

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