

Grass-based dairy products: challenges and opportunities



Prepared by:

Laura Paine

Wisconsin Department of Agriculture, Trade and Consumer Protection

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Introduction

There is growing consumer interest in dairy products from grass-fed cows, as evidenced by the popularity of Michael Pollan's writings on this subject (2008, 2006) and articles in the mainstream press (Burros 2006; Roosevelt 2006). Consumers are increasingly aware of the environmental, health and taste benefits of eating dairy and other animal products from livestock fed using managed grazing.¹ If this interest translates into demand, it may open new value-added markets for farmers who use managed grazing, called graziers.

This project was initiated to provide guidance for future grass-fed dairy marketing efforts. Early grass-fed dairy product successes have been primarily farmstead processors, but as the sector grows, it will become more important for milk to be pooled from several farms to produce higher volumes of product. The lessons that pioneering graziers have learned will help the grazing community create a premium market for their products. If grass-fed dairy products command a premium price, more farmers may adopt this environmentally friendly farming system.

Wisconsin has led the country in the adoption of managed grazing on dairy farms over the past 20 years. Farms using managed grazing can be environmentally sound (Paine et al. 1995; Lyons et al. 2000) and profitable (Kriegl and R. McNair 2005). Nearly 25 percent of the state's dairy farmers used grazing as a primary source of forage as of 2003 (Taylor and Foltz 2006). As markets for grass-fed food develop, several entrepreneurial farmers in the Upper Midwest have initiated efforts to capture a premium for grass-fed milk, cheese and butter. These farmers have experienced struggles and successes while developing their products and markets. Their early experiences can help guide this emerging sector as it grows.

Studies have shown higher levels of some beneficial fatty acids (conjugated linoleic acid, or CLA,

and Omega 3s) in dairy products made from the milk of cows on managed pastures (Parodi 1994; Pariza 1997; Dhiman et al. 1999; Clancy 2006). Although the research has not yet shown conclusive links between grass-fed dairy products and human health (Clancy 2006), initial product marketing has focused on purported health benefits. So far, these grass-based health claims have not proven to be strong selling points for consumers, but there is good evidence that flavor is (CIAS 2003; Pirog 2004). Studies have shown that grass-fed dairy products have different flavors, textures and other characteristics compared to products made from the milk of conventionally fed cows (Bendall 2001; Couvreur et al. 2006; Rankin 2006; Martin et al. 2005).

The flavor of grass-fed dairy products appears to be affected by the unique characteristics of the climate, soils and forages of the places from which they originate. These unique characteristics are called *terroir*, a term first used in the wine industry. *Terroir* is considered the sum total of the local ambience or the factors that influence the flavors and qualities of a food handcrafted in a particular place. It is a concept that is gaining recognition in the food industry and among consumers (Black 2007). There is tremendous opportunity for local, artisanal, grass-fed dairy producers to market premium products based on their unique, place-



Photo: CIAS

¹ *Managed grazing*, or management intensive grazing (MIG), is a system in which dairy farmers rely on pasture as the primary source of forages for their milk cows during the grazing season. Farmers who practice managed grazing, called *graziers*, move animals to fresh pasture on a regular basis and manage the pastures to maximize the quality and quantity of feed.



Photo: Wisconsin DATCP

based flavors and textures (Rankin 2008, personal communication).

To date, the flavor and culinary characteristics of grass-fed milk are not well defined, but many recent anecdotal observations among makers of grass-fed artisan dairy products have confirmed flavor, chemistry and physical differences in products made with milk from pastured cows. For example, the PastureLand Cooperative, a group of four grazing farms in Minnesota, makes an award-winning pastured butter that is naturally yellow and has a softer texture than conventional butter. It is spreadable at refrigerator temperature as a result of different types and ratios of fatty acids in milk from pastured cows.

In 2005, the Wisconsin Milk Marketing Board funded a study to investigate differences in milk between pastured cows and cows fed a conventional diet. Scott Rankin and his colleagues at the University of Wisconsin-Madison Center for Dairy Research made Cheddar cheese from three types of milk: (1) cows fed only pasture, (2) cows fed pasture supplemented by grain, and (3) cows fed a conventional total mixed ration diet. Cheese from milk of pastured cows with and without grain was creamier and had a natural yellow color from beta-carotene in the fresh grass. The pastured-with-grain diet produced cheese that was rated highest and cheese from cows fed a conventional diet rated lowest by a consumer taste panel (CIAS 2007). This

and other studies have documented differences in milk chemistry between grass-fed and conventional milk (Bendall 2001; Couvreur et al. 2006).

European cheesemakers have a tradition of working with the unique qualities of grass-fed milk to produce unique and highly sought-after products. One review of over 20 studies on the effects of cow diet on dairy products (Martin et al. 2005) included comparisons made between stored feeds and pasture, fermented feeds (silage) and hay, different pasture species composition and pasture altitude and aspect in the Alps. Products made with milk from cows fed a maize silage diet were whiter, firmer and rated lower in controlled taste experiments than the same products made with milk from pastured cows. Major differences were also observed between products made with milk from cows on fresh pasture compared with milk from cows on dry hay or grass-legume silage. Several studies in the review showed that the botanical composition of pasture had a significant influence on the color, flavor and texture of products made from the grazing cows' milk. These effects were thought to be due to the presence of different quantities of specific compounds in the forage that were transmitted to milk. These compounds included carotenes and terpenes, as well as plasmin and certain fatty acids.

Grass-fed dairy products can potentially help revitalize Wisconsin's historically strong dairy industry, which includes many small dairy processing plants that can create artisanal, grass-fed dairy products. With cheesemaking expertise and over 13,700 dairy farms, Wisconsin has the makings of a specialty dairy market based not only on quantity, but on quality and artisanship. Through a combination of technical assistance and strategic investment, Wisconsin has created a culture of entrepreneurship that has captured 44.5 percent of the U.S. specialty cheese market (Isige 2008, personal communication).

Background of the study

In the two decades since the grazing movement began in the Upper Midwest, grass-based dairy farmers have formed a vibrant community featuring many local grazing networks and a shared sense

of identity (Paine et al. 2000). In focus groups conducted in 2006, graziers expressed a shared belief that there are societal benefits associated with the production system they've adopted. They felt that our society and environment would be better off if milk were produced using managed grazing systems, as these systems can be financially sustainable for farmers and maximize the environmental protection of productive agricultural land. Aware of these perceived benefits, as well as growing consumer interest in food from grass-fed cattle, many graziers viewed the milk they produce as a premium product (Paine 2006).

Several of the graziers interviewed for this study launched their processing enterprises not only to increase their own income, but also to establish a premium market for other graziers. Currently, organic milk is the only type of cows' milk that is differentiated in the marketplace and garners a premium price. While it took many years to establish the market for organic milk, this market is now worth an estimated \$2.5 billion per year (Mintel 2007; Organic Trade Association 2009) and provides a dependable, premium price for organic farmers. Although the total number of organic dairy farms remains small, it has increased dramatically. In Wisconsin, it has doubled in the last five years to nearly 500 (USDA 2008; Paine 2008).

It will likewise take time to differentiate grass-fed milk and the products made from this milk. The unique chemical and physical attributes of grass-fed milk may contribute to the establishment of a premium market for this product. If those attributes can be defined and their value demonstrated, this market may grow. Flavor attributes and other perceived benefits could build consumer demand and a premium price for grass-fed dairy products.

For this project, the author interviewed five artisan dairy processors that entered the industry to make products from grass-fed milk. Information was gathered on an additional seven companies through informal discussions and published materials. Information on the processors was updated in June 2009. Finally, the author interviewed a

master cheesemaker who has been instrumental in establishing the grass-fed dairy movement in Wisconsin by mentoring farmer-cheesemakers, contracting to make cheese for them and leasing his dairy processing facilities to them.

The grass-based dairy companies included in this study represent three different business structures. The first is farmstead processing, where an individual farmer invests in equipment and facilities to process his or her own milk. The second is a farmer-initiated cooperative model, where several farmers work together to pool their milk and partner or contract with existing processors to have products made. In the third model, existing dairy processing companies have developed specialty grass-fed product lines in addition to their other product lines.

Overview of processors

The global nature of our food system and the complexity of supply chains make it difficult to launch a new product, let alone a new company. The most successful grass-based dairy companies in this study are farmstead businesses that effectively shortened the supply chain.² In these most successful businesses, the farmer processed, distributed and marketed the product directly to customers. While all the companies in this study have struggled with supply chain issues, the farmstead businesses that started small and locally seem to have had better success building partnership-based supply chains as they grew. The co-ops and large, existing dairy companies have struggled more to put together the middle links of the supply chain. For example, the small, new farmer co-ops have had challenges with pooling milk from widely separated farms as well as with finding processors with the flexibility to segregate their milk for small batch, artisan products. The larger companies have had some successes getting product into large, national retail stores, but have struggled with marketing. The local farmer focus seems to be a key to successful marketing, and these companies have not been able to maintain that connection as they market nationally.

The development of this market depends on a foundation of successful grass-fed products and

² The phrase *supply chain* refers to the process by which raw materials produced on the farm are transported to a processor, made into products, distributed to consumer outlets, marketed and ultimately purchased and consumed.

Processors of grass-based dairy products included in this study

Company	Products	Year started	# of farms at start	Status in 2009
Farmstead processors				
Cedar Summit Farm	Glass bottled or carton milk, cream, ice cream	2001	1	Well established
Otter Creek Farm	Cheese	2007	1	Expanding
Saxon Homestead Farm	Cheese	2007	1	Expanding
Uplands Cheese	Cheese	2001	1	Well established
Grazier co-operatives				
Edelweiss Graziers Co-op	Cheese	2006	3	Expanding
Paradise Prairie Graziers	Ice Cream	2006	4	Never got started
PastureLand Co-op	Butter, Cheese	1998	4	Expanding
Still Meadows	Cheese	2000	2	Out of business
WI Dairy Graziers Co-op	Cheese, Cheese Spread	2001	4	Out of business
Existing businesses				
Alto Dairy Co-op	Cheese	2007	2	Brand discontinued
GrassPoint Farms	Milk, Cheese, Butter	2005	10-12	Expanding

businesses. All of the companies studied are in early stages of development, and it is too soon to tell whether they will succeed over the long term. Their stories, including successes and challenges, can help contribute to the growth of a market for grass-fed dairy products.

Successful strategies of farmstead processors

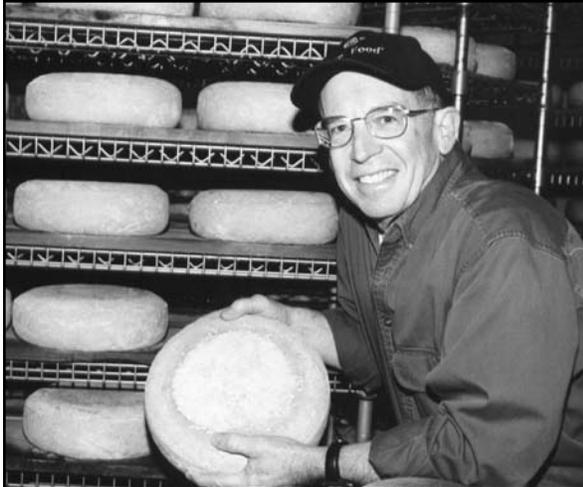
By definition, a farmstead processor makes products only with milk from that farm. The farmer generally makes the product and is also often responsible for marketing and distributing it. Two farmstead processors in this study exemplify some of the features that appear to contribute to success in this market.

Uplands Cheese. Mike Gingrich and his business partner Dan Patenaude started Uplands Cheese near Highland, Wisconsin in 1999. Their first cheese was produced in 2001. Both were farmers looking for a way to add value to their grass-fed milk. While Dan focused on managing pastures and cows, Mike took on cheesemaking and marketing. Prior to making his first batch of cheese, Mike researched extensively products that would enhance what he considered the unique qualities

of his milk. He studied European cheesemaking methods before settling on a recipe.

Mike makes a single type of cheese in the style and tradition of French alpine cheeses, only during the summer when the cattle are out on pasture. He sometimes stops making cheese if pastures get too dry. Mike and Dan feed a little grain along with the pasture. They feel that the grain adds to the complexity of the cheese's flavor. Uplands' Pleasant Ridge Reserve cheese won Grand Champion at the American Cheese Society Convention in 2001—Mike's first entry. It has won several additional awards and sells for around \$20 per pound.

Although their cheesemaking enterprise is profitable, Mike and Dan also rely on milk sales for a portion of their income because they only make cheese during the pasture season. Like several other grass-fed dairy businesses, Uplands converted to certified organic production in its early years. While Mike and Dan didn't market their cheese as organic, the additional premium they received for their organic milk contributed to their overall profitability in the early years. However, as organic



Uplands Cheese

Farmstead processor

In 1999, business partners Mike Gingrich and Dan Patenaude were looking for a new income stream for their dairy farming operation. After three years of research, they settled on cheesemaking as a way of adding value to their milk. They calculated that they'd need to charge about \$20 per pound to generate the level of income they desired, so Mike set out to develop a special, high-value cheese. He looked to Europe, where unique cheeses, wines and other food products reflect the *terroir*, or character, of the local region. He settled on a cave-aged Alpine Beaufort-type cheese and worked with the UW-Madison Center for Dairy Research to adapt the recipe for his milk. Their first cheese was made in 2001 and that same year it won "Best of Show" at the American Cheese Society's annual convention.

Products: Uplands processes one type of cheese: Pleasant Ridge Reserve, an Alpine Beaufort type cheese similar to a Gruyere.

Marketing: Mike is adamant about doing all of his own marketing. He is the primary contact for all wholesale buyers. The cheese sells in upscale markets, cheese shops, restaurants and co-ops in the Midwest and across the country. About 5 percent of their sales are direct to consumers through their website.

Product positioning: Uplands' focus is on artisanship, Old World practices in farming and cheesemaking, and the unique flavors of their pastured milk.

Current status: Uplands is thriving, with cheese production and sales increasing from 6,000 pounds in 2000 to 67,000 pounds in 2007. They use only their summer milk for the cheese. Selling certified organic milk was an important source of income during the non-grazing season in their early years.

2009 update: Uplands built an addition on to their cheese plant in 2008, which increases their capacity to 100,000 pounds of cheese. The farm is no longer certified organic. High organic feed prices, as well as increased use of their milk for their own product, made it prudent to switch out of organic. Uplands now has an export license and has exported 1,000 pounds of cheese to retail stores and restaurants in London.

feed prices increased and the proportion of milk being sold to the organic market declined, they discontinued organic certification.

Mike and Dan feel that three factors contributed to their success. First, they set out to develop a high-value product for which they could charge a premium. Mike calculated that he would need \$18 to \$20 per pound to earn a profit, and he set out to develop a product that would command that kind of price. He looked to a part of the world similar to his own in climate and cattle feeding practices for ideas. Mike selected an Alpine Beaufort type of cheese that was traditionally made with milk from pastured cows and adjusted a basic recipe to make it unique.

Second, Uplands Cheese markets its own product. Mike does in-store demonstrations, and when wholesale buyers or individual customers call, they talk directly with him. Mike feels a key to their success is that he has a personal relationship with the buyers in the stores where his product is carried. He is the cheesemaker and farmer, and his customers have confidence in what he says about his product.

Third, Mike and Dan started small, developed local markets, and delayed investing in on-farm facilities until the business proved profitable. Bob Wills of Cedar Grove Cheese in Plain, Wisconsin (see page 13) is a well-established, small-scale cheesemaker who made his facilities and his expertise available



Cedar Summit Farm
Farmstead processor

Dave and Florence Minar of New Prague, Minnesota, embarked on their dairy processing career after a lifetime of successful dairy farming. In 1993, they converted their dairy farm to managed grazing. In 2001, they built a processing plant on their farm to bottle milk and produce cream, ice cream, yogurt, sour cream, soft cheeses and dips. They purchased a turn-key miniature processing facility from an Israeli company and housed it, along with a retail store, in a new building on their farm. Their goal was to build a business in which their five children could participate. Their farm, on high value real estate just outside Minneapolis-St. Paul, needed

to generate sufficient income to justify maintaining that land base. The Minars' farm is landlocked, and they cannot add acres to their operation.

Products: Cedar Summit currently processes fluid milk and cream in returnable glass bottles and paper cartons, chocolate milk and ice cream. They also tried—but discontinued—yogurt, sour cream, soft cheeses and dips. They also supply some milk to PastureLand Cooperative (see page 8).

Marketing: The bulk of their marketing is through their on-farm retail store, local farmers' markets and local, upscale grocery stores and co-ops. They also sell in some cities in Iowa, Wisconsin and Michigan.

Product positioning: Cedar Summit focuses on local food and knowing the farmer: "The Minar family at Cedar Summit wants to be your farmer." They are also certified organic and advertise that they are grass-based.

Current status: The Minars' enterprise seems to have matured and can be deemed successful and financially stable. They have well-established sales avenues into the Minneapolis-St. Paul market.

2009 update: Cedar Summit is leasing a 40-cow herd to get additional milk for their dairy products. The herd is certified organic and is 100 percent grass-fed.

to Mike and other novice cheesemakers. Leasing facilities for its first several years allowed Uplands Cheese to start with small batches, make only as much cheese as they could sell and grow with their market. This strategy kept Uplands Cheese from becoming over-capitalized in its early years when it had low sales and unclear prospects.

Today, Uplands Cheese is financially strong and the partners have invested in a farmstead processing plant and cheese aging facility.

Cedar Summit Creamery. Dave and Florence Minar started Cedar Summit Creamery on their farm outside of Minneapolis, Minnesota in 2001. Like Mike Gingrich and Dan Patenaude, their goal was to add value to their dairy farm enterprise. Because of high land costs near Minneapolis, adding land and expanding their herd was not a

financially feasible path toward this goal. Instead, the Minars chose to add value to their milk by processing and marketing it themselves. By doing this, they could support multiple generations on the farm. Unlike Mike and Dan, the Minars purchased a turn-key processing facility and installed it in a new building on their farm, along with a retail store.

The processing plant was a major investment. By selecting equipment that could process a number of different products, they gained the flexibility to test the market and determine which products would be successful. Early in the development of their business, they marketed a variety of products including milk in returnable glass bottles and cartons, cream, ice cream, yogurt, sour cream, soft cheeses and dips. Their products were sold through the retail store on their farm, farmers' markets,

local stores and food co-ops. For a while, they ran a home delivery service, but found it unprofitable.

Dave and Florence built their business slowly, focusing on local markets and making incremental changes as the business grew. They started out processing 25 to 30 percent of their milk. In 2007, their business had grown to the point where they processed all of their milk. They've narrowed their product line to items that sell well and are the most profitable. Family members are the primary employees, and Dave and Florence do all of the marketing.

Marketing messages that work for them focus on local food—customers can visit the farm and know the farmers—and managed grazing as a sustainable way to produce milk. Like Uplands Cheese, Cedar Summit made the transition to organic production after a few years of marketing their grass-fed products. At that time, the organic premium paid for their surplus milk provided significant financial support for their fledgling business. Cedar Summit products are certified organic; the Minars feel that this contributes to their success. To address their customers' interests, they recently eliminated grain from their herd's diet, allowing them to advertise their products as 100 percent grass fed. Winter feeding consists of organic hay and grass baleage.

The Minars feel that personalized marketing is an important key to building their business, as well as starting locally and gradually expanding to a broader region. After seven years, Cedar Summit's products are now available in Iowa, Wisconsin, Michigan and Minnesota, including as many as 100 markets in Minneapolis and St. Paul.

Marketing messages that work

Gingrich attributes Pleasant Ridge Reserve's success, in large part, to the flavor of the milk from his pastured cows. But the term "grass fed" is not used prominently in Uplands Cheese advertising. Uplands Cheese and Cedar Summit communicate several of the attributes consumers identify with grass-fed or pasture-based production systems and products. Environmental aspects of these systems and supporting a family farm are part of each company's marketing message. Both started small

and local, developing a loyal clientele through personal marketing of their unique products.

Scaling up: Making farmer cooperatives work

Uplands Cheese and Cedar Summit have circumvented the sometimes adversarial relationship between farmer and processor by processing, distributing and marketing their products themselves. However, not every farmer wants to take on these diverse roles.

The farmer cooperatives included in this study represent a possible next step in building small-scale supply chains or value chains (see "Mutually beneficial relationships," page 8). A market based on regional clusters of grass-based dairy farms and small, diversified processing plants could reward grass-based dairy farmers for environmental stewardship while providing economic development opportunities for local communities. However, scaling up to this next level carries some great challenges. Some keys to success include using the strategies that worked for the farmstead projects—starting small and local, and maintaining the farmers' involvement in marketing. Another key may be to carefully select processing, distribution, and marketing partners who share the cooperative's goals and interests.

Farmer Cooperatives: one example

PastureLand Cooperative. Four Minnesota dairy families formed PastureLand, the oldest cooperative in this survey, in 1998. Their goal was to develop high quality, grass-fed products by establishing partnerships with like-minded processors. Their initial product line was determined by the capacity of the processors with whom they worked. Ultimately, they would like to be a cooperative of about 20 farms.

Since PastureLand's start, their farmer members have transitioned to organic production and, more recently, to 100 percent grass-fed production. Currently, only about 15 percent of the milk produced on members' farms goes into PastureLand products. The balance is sold as organic raw milk. Although PastureLand products are primarily marketed as grass fed (as well as organic), the cooperative's finances benefit from the organic

premium they receive for their raw milk sales. About 25 percent of their income is derived from their own products; 75 percent is from milk sales.

PastureLand butter sells well and has won blue ribbons in the American Cheese Society's national competitions. Their cheeses have not met their sales goals, and they experienced problems with some cheese recipes. New cheeses are in development.

Although sales are still small, PastureLand is growing at 30 to 50 percent per year. The cooperative feels that their new cheeses will improve their outlook for growth. PastureLand's members feel that they've developed a strong, recognizable brand that is sought out by consumers interested in environmental stewardship and the health benefits associated with grass-fed and organic food.

Mutually beneficial relationships. PastureLand's current and future efforts have more potential to succeed if they develop within a 'value chain' framework, which is based on forming partnerships with like-minded processors and marketers who carry messages through to consumers. This is a primary concept of the Agriculture of the Middle project, which seeks to keep mid-size family farms viable through innovative business models, research and public policy change.³ In a supply chain, farmers provide raw commodities; in a value chain, farmers are partners who have a vested interest in the overall success of finished products in the marketplace (Kirschenmann et al. 2004).

Organic Valley and Country Natural Beef are two examples of successful partnership-based companies in the dairy and meat industries. They are farmer



Photo: PastureLand Cooperative

PastureLand Cooperative Grazier cooperative

PastureLand Cooperative was formed in 1998 by a group of four Minnesota dairy graziers who set out to establish a market for grass-fed dairy products. While some of the members have changed since the beginning, it remains a small group of four farms. It has had some successes with a prize-winning pasture butter made only during the grazing season. Since it started, the farmers have converted to certified organic production to gain a better premium for their off-season milk. These farmers recently switched to a grain-free diet for their cattle.

Products: PastureLand produces butter and cheese.

Its cheese line began with Gouda Cheddar, and Baby Swiss. PastureLand no longer produces Baby Swiss. Other cheeses are in development.

Marketing: The cooperative hired a general manager and marketer with whom they are satisfied. They sell to upscale markets and co-ops in Minnesota, Chicago and Wisconsin.

Product positioning: PastureLand focuses on the environmental, health and societal benefits of grass-fed and rBGH free dairy products. Its butter has a trademark: "Summer Gold." PastureLand is unique in its success selling the health benefits of grass-fed products. This was accomplished, in part, by establishing a relationship with the Weston A. Price Foundation, a raw milk advocacy group.

Current status: PastureLand is on stable financial footing, although the bulk of the co-op's income still comes from organic milk sales in winter. It is launching a new line of cheeses created to capture the unique flavors of grass-fed milk.

2009 update: There were problems with some recipes for new cheeses, so other cheeses are now in development. PastureLand is expanding its distribution and has revamped its national mail order business. It is relying heavily on a Twin Cities distributor.

³ Learn more about this project at www.agofthemiddle.org.

Photo: Grass Point Farms



Grass Point Farms

Existing company

This company was established in 2005 by Organic Farm Marketing (OFM) and a group of graziers. OFM is managed by Chad Pawlak who also managed an organic line of dairy products under the Wisconsin Organics brand. Several graziers and one non-farmer invested in the effort. Grass Point was founded to offer a value-added market to grass-based dairies who were not interested in an organic dairy model. Grass Point feels the company is well positioned due to the lack of defined pasture standards in the National Organic Program and the emerging science coming to light with respect to the health benefits of consumer grass-fed dairy products.

Products: Grass Point processes fluid milk, butter and cheeses including mild Cheddar, sharp Cheddar, Mozzarella, Monterey jack and Pepper jack. They contract their processing through several dairy plants.

Marketing: Grass Point sells its products both in Wisconsin and nationally through Organic Farm Marketing's distribution channels, specialty food distributors and other partners.

Product positioning: Grass Point uses third party certification to guarantee that its cows are raised humanely using managed grazing. Its marketing messages focus on animal health, environmental stewardship, rBGH free and health aspects of grass-fed dairy products.

Current status: Grass Point has faced difficulties fitting into the schedules of existing processing plants. Sales have been slower than expected, and they feel that retailers and consumers need more education about grass-fed products.

2009 update: The company continues to expand across the Upper Midwest and Ohio valley. Crystal Farms cheese, owned by Michael Foods, has recently entered into a co-branded line of Grass Point cheese shreds and chunks that will allow for a significant lift in procurement needs for Grass Point.

cooperatives that were started in the late 1980s and now number 1,200 and 80 members, respectively. They succeeded by carrying their cooperative attitudes throughout their business dealings. Although both now have significant national sales, they started small in local and regional markets, grew slowly for 10 years, created value chains that retained a local/regional structure and successfully feature producers in their marketing strategies.

Challenges faced by multi-farm projects. The dairy industry as a whole is built for economies of scale, which creates challenges for producers of small-batch, artisan products. Milk pickup and product distribution can be inefficient and expensive. It may be difficult for a small group of farmers to generate the capital needed to construct

or purchase processing equipment and facilities. Variability in milk chemistry and quality, as well as product delivery to markets, can be challenging.

Existing companies face sales challenges

In this survey, the established dairy processors diversifying into grass-fed products have faced challenges with sales. When Alto Dairy Cooperative was sold to Saputo Foods, its Black Creek Classics grass-fed product line was discontinued. But even before the sale, the company considered discontinuing grass-fed products due to poor sales. Grass Point Farms, owned by Organic Farm Marketing, was started in an effort to create a line of dairy products priced between organic and conventional (J. McNair 2006). Grass Point Farms initially solicited farmer investors in Wisconsin

to produce its fluid milk, butter and cheese. Early sales into national markets were disappointing and the company has had to scale back its plans. Grass Point Farms continues to sell these products, and is seeking sources of grass-fed milk in Indiana and Ohio, closer to East Coast markets, to reduce distribution costs.

Both of these efforts incorporated information about the farms into their advertising, but farmers weren't actively involved in marketing. In addition, both companies introduced fairly commonplace products—Cheddar and Mozzarella cheese, fluid milk and butter—that may not be unique enough to be differentiated in large grocery stores.

Working with milk from grass-fed cows

Harnessing variability. The U.S. dairy industry has virtually eliminated variation in the quality and flavor of dairy products by feeding confined cattle a prescribed diet and pooling large volumes of milk from many farms. Standardization simplifies the production process and ensures that every block of cheese or carton of milk is the same, and that customers know what to expect when they pick up a jug of milk at the store. Clearly, consistency is important for a product to succeed in the marketplace. For grass-fed products, consistency may need to be balanced with their unique and variable flavors and other qualities.

The seasonality of managed grazing systems introduces an additional challenge to creating uniform dairy products and making them available

year round. Changes in seasonal pasture plants in the cows' diets change the milk. Grass-fed dairy artisans deal with this challenge a number of different ways. PastureLand makes their award-winning butter only during the grazing season. Because butter can be frozen and stored, it can be sold throughout the year. Uplands' Pleasant Ridge Reserve cheese is made only in the summer. A four-month aging period further complicates year-round marketing of this product.

Otter Creek Organic Farm has taken a novel approach to the challenge of seasonality. This farm is located in southwestern Wisconsin, where pasture and forage species vary significantly within the five- to eight-month growing season. Otter Creek developed four seasonal Cheddar cheeses that reflect the differences in cattle feeding practices throughout the year. The packaging for these cheeses include a set of seasonal logos and a description of their cows' diet during that season. Their pastures vary seasonally, for example, between perennial and annual forages and proportions of grasses and legumes. Only the cows' winter diet is entirely devoid of fresh pasture.

Protocols. All of the multi-farm projects surveyed established on-farm protocols to improve consistency in milk quality and create a foundation for marketing. There are very few areas in North America where livestock can obtain all of their forage from fresh pasture year round, so many protocols address the feeding of stored forages and other supplements.

Black Creek Classics by Alto Dairy

Established cooperative

This large, well-established dairy cooperative (over 600 members) made the decision to enter the grass-fed market in 2006. They recruited two of their existing members, who graze a combined total of 1,600 cows, to start off this product line. They added several more members within the first year. They paid a \$1.00/hundredweight premium over their conventional pay price for grass-fed milk.

Products: Black Creek Classic Pasture Grazed Natural Cheddar Cheese

Marketing: Alto marketed this product regionally and nationally through their company channels.

Product positioning: Alto emphasized the health aspects of grass-fed cheese, especially CLA, as well as animal welfare. There was some focus on the farms that produced the milk.

Current status: Alto was bought out by Saputo Foods, a Canadian company, in 2007 and the grass-fed line was discontinued. Company spokespeople shared that the product did not sell well and they were considering discontinuing it even before the buyout.



Otter Creek Organic Farm

Farmstead processor

Established in 2007, this is one of the newest grass-fed dairy companies. Otter Creek cheese is made by Bob Wills at Cedar Grove using only Otter Creek milk. The basic recipe is from a cheesemaker who made cheese in an old, long-abandoned factory on Otter Creek farm.

Products: Otter Creek sells four seasonal Cheddars, reflecting the changes in cattle feeding throughout the year. They are labeled ‘Spring’, ‘Summer’, ‘Fall’ and ‘Winter,’ and each package lists what the cattle eat during that season. Otter Creek also makes Cheddars flavored with garlic, pesto and other products in partnership with other local farmers.

Marketing: Family member Bartlett Durand is responsible for marketing. Otter Creek is currently selling through local upscale markets, as well as a few outlets in Chicago and Minneapolis. It has formed a unique partnership with a large Community Supported Agriculture (CSA) farm to offer Otter Creek cheese as part of the weekly share. It is also working with this farm to incorporate extra vegetables into flavored cheese recipes.

Product positioning: Otter Creek’s message focuses on the connection between healthy soils, healthy plants, healthy cows and healthy food. Otter Creek is certified organic and promotes the environmental benefits of its farming practices.

Current status: Otter Creek has successfully placed its products in stores and established some strong partnerships with other farmers. Since Otter Creek has only made one year’s worth of cheese, it is too soon to tell what its ultimate success will be.

2009 update: Otter Creek sales are expanding, particularly on the West Coast, in Chicago restaurants and to Whole Foods. Otter Creek is working with national distributors and brokers to expand its markets. It received a USDA value-added producer grant to increase its inventory and build sales to bigger retail chains.

While strictly forage diets are common in grass-fed meat protocols, most grass-fed dairy protocols allow supplemental feeding of grain-based feeds, but require that a specific proportion of the animals’ diet come from pasture. For example, the protocol for Edelweiss Graziers Cooperative requires greater than 60 percent pasture dry matter intake, 1.5 acres of pasture per cow, and no corn silage or haylage fed to cows milked during the grazing season, ideally from mid-April through mid-November.

Supplemental feeding. All of the cheesemakers interviewed had stories to tell about the effect of changing supplemental feeding practices on product quality. Cheesemaking is especially sensitive to silage in the diet, and one artisan found that feeding distillers grains affected the quality of his cheeses. Supplementary dry grain appears to

have less impact on the cheesemaking process, and most of the processors of grass-fed milk allow it. Mike Gingrich feels that grain contributes to the flavor of his Pleasant Ridge Reserve cheese. Others, including PastureLand and Cedar Summit Farm, have removed all grain from their cows’ diets.

Milk handling and pooling. As with most new products, sales of grass-fed dairy products started slowly for these businesses. Most started by making small batches that utilized only a portion of their milk. Income from conventional (or organic) milk sales provide needed cash flow for fledgling grass-based dairy businesses. But, since most dairy processors have established routes and expect to pick up all of a farm’s milk every other day, shifting some of a farm’s milk into an artisan product presents challenges. With few exceptions, standard

Photo: CIAS



Edelweiss Graziers Cooperative

Grazier cooperative

A group of three farmers formed a cooperative in 2006. They teamed up with two cheesemakers and invested in a small, historic creamery in Monticello, Wisconsin.

Products: Edelweiss produces a signature, 190-pound Swiss cheese wheel from conventional milk, plus a number of other cheeses, both conventional and grass-fed. Currently, grass-fed varieties are Gouda and Cheddar.

Marketing: This is done by one of the cheesemakers and his marketer. An existing connection between this cheesemaker and a national upscale grocery chain provided the farmers with some security in the start-up phase of this business. Local sales are through farmers' markets and demonstrations. In partnership with another small dairy processor, they do some of their own distribution locally.

Product positioning: Edelweiss focuses its message on knowing the farmer and the farming system, the environmental and social benefits of grass-fed dairy products, and the hand-crafted, artisan nature of their cheeses.

Current status: Edelweiss is a young business. Because the farmers own the cheese factory, they are directly responsible for processing enough grass-fed and conventional cheese to keep the plant in operation. Since sales of their grass-fed products have been slow, they've had to purchase commodity milk on the market at prices they don't control.

2009 update: Time and experience have helped Edelweiss become a viable business. The marketing of grass-based cheese is still a challenge, however.

contracts require farmers to sell all of their milk to the processor. Fortunately, a few of the smaller established processors have been willing to work with these fledgling artisans and purchase only a portion of their milk.

Getting grass-fed milk into dairy products, and to the consumer

Processing. With over 200 dairy plants, Wisconsin has an enormous capacity for contract processing. Its mid-size plants have smaller scale equipment and are well suited to make small batches of a variety of dairy products. Wisconsin's processors have a culture of sharing this capacity. For example, Organic Valley, a large dairy cooperative based in LaFarge, Wisconsin has not invested heavily in processing facilities. Instead, they have chosen to forge partnerships with over 20 processors in Wisconsin, and many more elsewhere, who make their products (McGeorge 2008, personal communication).

Only one of the projects in this study owned existing processing facilities. Alto Dairy, a 600-member cooperative, had the capacity to segregate milk and produce relatively small batches of specialty cheese. Two businesses purchased (Edelweiss Graziers Cooperative) or built (Cedar Summit Farm) their own processing facilities. Six companies hired a processor or cheesemaker to make their products, and one (Uplands) leased facilities in its early years.

The businesses that use existing processing facilities do so mainly for financial reasons. Among the 10 to 20 dairy farmers who have constructed farmstead processing facilities in Wisconsin, investments of \$0.5 to \$2 million were not uncommon. None of these operations started out with enough sales to fully utilize their capacity, so many plants sat idle several days a week. These farmers have dealt with this challenge in a number of ways. One farmstead processor not in this survey bottled milk, on

contract, for another company. Edelweiss Graziers Cooperative purchased and refurbished an existing cheese factory in partnership with a cheesemaker. To fill their capacity, they produce a line of conventional cheeses with some of their own milk and milk purchased on the commodity market.

Access to processing facilities is the single greatest financial obstacle to establishing a successful artisan dairy company. Most of the individual farms or groups of farmers that have made investments in processing facilities are new enough that their long-term financial status remains unclear.

Bob Wills, master cheesemaker and owner of Cedar Grove Cheese in Plain, Wisconsin, provides a service to his peers. Half of the dairy artisans interviewed either used Bob's facilities or contracted with him to make their products as they got started. Bob also offers training and experience for future cheesemakers. His assistance is very

valuable in Wisconsin where dairy artisans must meet strict apprenticeship requirements to obtain a cheesemaker license. Mike Gingrich made his Pleasant Ridge Reserve cheese at Cedar Grove for three years before investing in a farmstead plant. In other states, cooperative, government or private investment in infrastructure development could substitute for the mentoring and support that Bob provides in Wisconsin. This type of investment could foster the growth of a regional dairy industry, especially if organized using a kitchen incubator⁴ model in which dairy artisans lease facilities and work side-by-side with experienced processors.

Distribution and marketing. The primary reason why many farmers form cooperatives and partnerships is because they do not have the skills, time or inclination to become marketers. Ironically, early successes of grass-fed dairy products tend to be related to having the farmers market their products, leading one to believe that



Photo: Bob Wills

Bob Wills, Cedar Grove Cheese

Established processor

Bob Wills owns Cedar Grove Cheese, a small, family-owned cheese plant in Plain, Wisconsin. He is also a master cheesemaker. He openly shares his facilities and knowledge with others in the industry, especially farmer-cheesemakers. Bob is genuinely interested in and committed to the agriculture that feeds his business. He has held leadership positions with federal and university sustainable agriculture

programs, and he currently serves on the Wisconsin Organic Advisory Council.

Bob feels that small plants like his can incubate new products and train the next generation of cheesemakers. He supports new cheese businesses in several ways: he makes cheese on contract using their recipes and milk (Still Meadows, Northern Meadows, Otter Creek); he leases equipment to them and provides training and/or experience to help them make their own cheese (Uplands Cheese); he has purchased a small vat for making experimental batches of cheese; and he provides training for people who want to get a cheesemaker's license.

Bob's rationale for opening his cheese plant to others, aside from what he can learn from these new cheesemakers, is an interest in the long-term health of Wisconsin's cheese industry. He feels that the Wisconsin dairy industry can't compete on commodity products, but it has the resources to compete with other specialty cheeses. He knows that it is expensive to start a new cheese factory, and he is concerned about small-scale cheese plants like his going out of business and being replaced by large national or multi-national companies.

⁴A *kitchen incubator* makes commercial kitchen equipment and facilities available for rent to startup businesses that are not yet ready to invest in their own facilities. Those who use the kitchen benefit from the knowledge of others using the kitchen.

marketing is one of the most important roles a farmer plays in developing a value-added dairy business. Hired marketers usually have a number of clients and little knowledge about farming. They seldom give any one product the attention it needs. As a result, any unique story or product value is, unfortunately, often lost. Two of the businesses that are no longer in operation—the Wisconsin Dairy Graziers Co-op and Still Meadows Cheese Company—discontinued at least in part because of heavy marketing demands (J. McNair 2004; Spany 2003). Before beginning a grass-fed dairy processing venture, farmers should assess their ability to market their products.

Mike Gingrich of Uplands Cheese deliberately does all of his own marketing. When the company grew large enough to add staff, they hired a cheesemaker so that Mike could continue to focus on marketing.

Dave and Florence Minar of Cedar Summit Creamery have had the same experience. Product sales at farmers' markets allow many of their customers to meet them personally. In-store demonstrations reinforce their message. Their personalized approach to marketing is at least partly responsible for their success with products that have low profit margins, like bottled milk.

Another example of successful, farmer-focused marketing involves a grass-fed meat company from the Pacific Northwest. Country Natural Beef is a cooperative started in 1986 that has grown to over 80 farms. Each of its members are required to participate in in-store demonstrations, and founders Doc and Connie Hatfield still do most of their marketing communications. This business, like the dairy projects in this study, started in local markets, and their sales have spread regionally and nationally.

Product positioning and marketing messages.

Choosing the right combination of messages to convey a product's qualities is a critical key to success on which many new companies don't spend enough time. The conservation benefits of managed grazing have become well known over the last 20 years, and this aspect has been incorporated into several of these products' marketing messages. Publication of research on Conjugated Linoleic Acid (CLA) and other healthy fats found in grass-fed animal products began in the late 1990s. The dairy artisans in this study centered their marketing messages on these ideas and other related themes. Several companies focused primarily on the purported health benefits of grass-fed dairy products (Northern Meadows made by the

Paradise Prairie Graziers

Grazier cooperative

This group of four southern Wisconsin farmers formed a limited liability corporation in 2006. Their goal was to work with a like-minded processor to establish a grass-based brand. They had no particular product in mind; rather, their focus was to earn a premium for their milk and bring other graziers into the company. They needed to find the right partner to handle product development and marketing. They thought they had found that partner in a small, local ice cream company. This project never got going because of processing challenges.

Product: Paradise Prairie Graziers set out to make premium ice cream. The processor intended to convert all of his products to grass-fed milk.

Marketing: Since the grass-fed milk was to be incorporated into an existing product with strong

brand recognition, most marketing needs were already met.

Product positioning: The goal was for the company was to re-introduce their product as environmentally sound, healthy ice cream from family farms. The processor planned to highlight individual farmers whose milk was used in the product. This company intended to have wholesale customers attend events on the farms so that a farm-to-fork (or, in this case, spoon) connection could be made by buyers.

Current status: This project died due to problems getting the milk into the final ice cream mix used by the processor. This company contracts with a much larger ice cream company to prepare its mix, which they then make into ice cream at their own plant. The larger company was not able or willing to segregate the grass-fed milk.



Wisconsin Dairy Graziers Cooperative

Grazier cooperative

In 2001, a group of five Wisconsin dairy graziers launched one of the first efforts at developing a grass-fed dairy product. They knew little about cheesemaking and marketing. But these graziers knew that their milk was special, and they understood the health benefits associated with CLA and Omega 3 fatty acids in grass-fed milk. A little naively, they launched their business by contracting with Bob Wills at Cedar Grove cheese to have big batches of Cheddar—70,000 pounds—made from their milk. They focused their marketing efforts on the health benefits of grass-fed milk, backing up their claims with research that documented higher levels of CLA in their milk. The cheese didn't sell, and they were left with storage costs and increasingly well-aged Cheddar. They made some award-winning

cheese spreads and eventually were able to sell their stockpile. In 2007, they dissolved their cooperative. They hadn't made much money, but they didn't lose money, either.

Products: Northern Meadows processed a Cheddar cheese that was eventually made into a line of aged Cheddar cheese spreads including their award winning 'Double Cranberry'.

Marketing: The five farmers initially hired a broker to sell their cheese. In hindsight, they saw this as a mistake. The broker didn't know their product well enough to sell it effectively. They had better success with personal contacts that the farmers made themselves.

Positioning: Northern Meadows focused primarily on the health benefits of grass-fed dairy products, but also on the environmental and quality of life aspects of grass-based dairy farming. At that time, the health focus didn't work.

Current status: Wisconsin Dairy Graziers Cooperative dissolved in 2007. They made cheese for only one season, and sold it as increasingly aged Cheddar, and finally made it into cheese spreads that sold better than the original cheese. Each farmer member was able to earn back their \$500 initial investment plus a small dividend. The group is philosophical about their effort. They learned that the marketing they'd hoped to avoid by forming a cooperative was a critical job that they should have tackled themselves.

Wisconsin Dairy Graziers Cooperative, Black Creek Classics made by Alto Dairy, PastureLand cheeses and butter). Only one of these has been successful. PastureLand feeds no grain, is certified organic, and sells a significant proportion of its products through the Weston A. Price Foundation, an organization promoting the health benefits of raw, grass-fed dairy. Their marketing success may have been a result of the captive audience of Weston Price followers and a well-financed organization backing their marketing efforts. For other businesses, the health message has not translated into significant sales. Consumer surveys suggest that only 20 to 30 percent of shoppers purchase food based on health claims (Pirog 2004).

Other companies have promoted a package of benefits that grass-fed dairy products deliver. Grass Point incorporates the health message into a marketing package encompassing humane animal handling, environmental benefits and social responsibility. Nearly all of the companies surveyed used some combination of these messages.

Rick Schneiders, CEO of the national food distributor Sysco, summed up consumers' increasing interest in high-quality, differentiated food: "The food business is no longer about fast, convenient and cheap. It's about memory, romance and trust" (Maulsby 2003). This shift may provide the key to success in the artisan dairy market.



Saxon Homestead Farm

Farmstead processor

The Klessig and Heimerl families established Saxon Creamery in 2007 after a decade of planning. The successful multi-generational farm has been grass-based since 1989. Milking about 500 crossbred cows, the farm supports the families of Karl and Robert Klessig, as well as their sister Elise's family. Elise's husband, Jerry Heimerl, has taken on the cheesemaking while Karl and Robert concentrate on the cattle and pastures. The farm has been home to two previous cheese factories in its 160-year history. For this most recent venture, the families chose to locate the cheese factory away from the farm. Their research on cheesemaking suggested to them that managing the proper blend of cheese starter bacteria is difficult when cattle are maintained in close proximity. And it turned out to be more cost effective and beneficial to their local community of Cleveland to purchase and renovate an empty warehouse in town. Jerry has been aided in learning

the cheesemaking trade by a hired experienced cheesemaker. Saxon started out with two cheeses and has plans for more.

Products: Currently producing four raw milk cheeses: Green Fields, a semi-soft washed rinded cheese with sweet nutty tones; Big Eds, a "clean rind" cheese made from raw cow's milk formed into cooked, pressed curds and ripened 120 days, both introduced in 2008; Saxony, a sophisticated, supple body cheese; and Pastures, a bandaged wrapped raw milk cheese aged 120 days.

Marketing: Saxon markets through its website and through mainstream cheese distribution networks, attending food shows and entering the American Cheese Society annual competition and other events.

Product positioning: Focus is on the history and legacy of the family farm—Saxon Homestead Farm. The website highlights the pasture-based farm, environmental stewardship and animal husbandry. While Saxon doesn't use the term 'grass-fed' per se, the pasture is the focus of the branding, as evidenced by the names of the cheeses: Green Fields, Pasture, and Meadows.

Current status: The Saxon brand is doing well. Sales have been encouraging and they expect to be able to follow the cheese introduction timetable they established.

2009 update: Saxon Creamery has teamed with local goat farmers to produce an award-winning goat cheese name Laclare Farm Evalon. They've planned two more cheeses to be introduced over the next two years.

Projects faring well share these qualities: a unique, good-tasting product that provides a positive eating experience (memory); a compelling story about the place the food comes from and the people who provide it (romance); and a consistently high quality product made via a transparent, knowable production system (trust).

Product selection. The experiences of new, grass-fed dairy companies in this survey suggest that daily use products such as fluid milk or Cheddar cheese may not be ideal specialty dairy products. Fluid milk is especially problematic, due to its short shelf life. Since children are the primary consumers of

milk, and many parents are willing to pay extra for milk perceived to provide health benefits or other desirable qualities, organic milk sales have grown (Severson 2005). However, it is unknown whether buyers will respond similarly to grass-fed milk. To date, Cedar Summit is the only company in this study that has succeeded with fluid milk. Cedar Summit was one of the first farmstead processors to sell milk in returnable glass bottles, and it sells into a high-income market.

Conventional cheeses and other commonly used products like sour cream and cottage cheese probably offer limited opportunities to add grass-

fed value. More likely, specialty products that highlight and enhance the unique qualities of grass-fed milk will succeed. Uplands' Gruyere-style cheese and PastureLand's prize-winning butter, made seasonally to capture the color, flavor and texture imparted by pastured milk, are examples of these kinds of specialty products.

Premium ice cream might be a good choice as well. Ice cream made from grass-fed milk and cream may have an enhanced texture because of higher levels of unsaturated fats. This product is purchased as a treat, allowing greater potential for a premium price (e.g., Haagen-Dazs). It is a product for which fat is not as much of a liability.

So far, the artisans that have had most success marketing grass-fed dairy products have done so because they've linked the farmers' story and the marketing messages with a high quality, flavorful and unique product. Marketing messages can entice consumers to pick up a product once, but if it doesn't taste good, they won't be back.

Lessons learned

Grass-fed dairy products are successfully processed and marketed at different scales, using a variety of approaches. Here are some key strategies used by the businesses in this study:

1. Invest substantial time into marketing.

The most successful businesses share a strong commitment to marketing their own products. Marketing is a priority for Uplands Cheese and Cedar Summit. Not having enough time for marketing and inability to find a good broker led to the discontinuation of two farmer-run businesses: Northern Meadows and Still Meadows cheeses.

2. Emphasize premium products with unique characteristics and recognize that flavor is king.

Uplands Cheese researched and developed a flavorful, grass-fed cheese based on a European recipe. Cedar Summit markets its products as certified organic and 100 percent grass fed to an urban audience that will pay more for these qualities. PastureLand's prize-

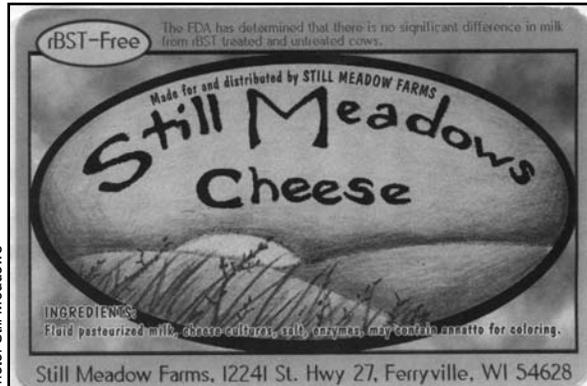


Photo: Still Meadows

Still Meadows

Grazier cooperative

This business was formed in 2000 as a limited liability company by two western Wisconsin farmers. They worked with Cedar Grove Cheese to make a series of Cheddar cheeses, including several flavored ones. They did everything themselves except the cheesemaking and successfully placed their cheeses in southern Wisconsin food co-ops and specialty stores. In 2003, they sold the company to another farm family.

Products: Still Meadows processed mild, medium and aged Cheddar cheese. Their flavored Cheddars

included roasted garlic, horseradish, tomato olive basil, onion and chive, and salsa.

Marketing: The original farmer-owners did their own marketing; the time and effort involved was what ultimately led them to sell the business. While they were fairly successful, they are dairy farmers by trade and did not want to be marketers.

Product positioning: Still Meadows' goal was to make good, healthy cheeses that were affordable to average families. Their focus was on a reasonable price and the health aspects of their farming system and the milk, including an rBGH-free claim.

Current status: The company was sold to an individual in southwestern Wisconsin who sold Still Meadows cheese in southern Wisconsin stores. The Still Meadows brand appears to have been successful, as sales were stable even though the original farmers were no longer involved in the company.

2009 update: The business is no longer in operation, as the time demands were too great for the returns.

winning, bright yellow summer butter is another example of a premium product.

3. **Test the market and grow slowly, delaying fixed processing investments.** Uplands Cheese waited to invest in on-farm processing facilities until they knew they had a reliable, high-paying market. Dairy processing infrastructure is capital intensive; test the market before making a huge investment. Explore kitchen incubator opportunities in your area.
4. **Have a profitable backup market for milk not used in the artisan operation.** Negotiating with commercial processors to allow a small-scale startup while continuing milk sales is critical to maintaining cash flow in the early stages of the business. Some of the companies highlighted here have become certified organic in order to capture a higher value for the milk not used in their artisan products. This strategic decision allowed them to increase income from their surplus milk while creating artisan products and building markets.
5. **Marketing messages that have worked well include local food, unique flavors, support for family farms and environmental responsibility.** Assembling marketing messages into a good product 'story' is one of the keys to success. The health claims that several companies have used seem to be the weakest of the marketing claims.
6. **Realize your limitations.** Most people can't be good at everything. Trying to run a farm, make cheese and market and distribute it is extremely demanding. Figuring out a way to allocate these tasks among family, co-op members or outside businesses is tricky but plays a key role in future success.

and economic benefits of grassland landscapes. The grass-fed dairy companies described here embody the challenges and potential for this growing market.

From pasture to plate, grass-based dairy systems combine a suite of benefits for farmers, consumers, rural communities and the environment. Cooperative efforts among public and private sectors can foster development of a grass-fed dairy value chain that balances the environmental, social

Appendix A

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