

Values-based food supply chains: Shepherd's Grain

Larry Lev, Oregon State University Department of Applied Economics

G.W. Stevenson, UW-Madison Center for Integrated Agricultural Systems

April 2013¹

This series of case studies examines values-based food supply chains—strategic business alliances formed between primarily mid-sized farms/ranches and their supply chain partners—to distribute significant volumes of high-quality, differentiated food products and share the rewards equitably. Farmers and ranchers function as strategic partners rather than easily replaced input suppliers. All participants in these business alliances recognize that creating maximum value for the product depends on significant interdependence, collaboration and mutual support. These supply chains attach importance to both the values embedded in the production of the food products AND the values that characterize the business relationships.²



Historical development through 2008

Introduction. Shepherd's Grain <www.shepherdsgrain.com>³ is a values-based food supply chain business in the Pacific Northwest that markets high-end wheat flour grown sustainably by the Columbia Plateau Producers. An introduction to Shepherd's Grain and the Columbia Plateau Producers can be found on the Shepherd's Grain website under "Our Story" <www.shepherdsgrain.com/home/our-story/>. This case study follows Shepherd's Grain from the founding of the enterprise through 2011. **Operations through 2007-08 are described on pages 1-14, followed by a case update describing operations in 2009-2011.**

Geological context. The origins of agricultural sustainability challenges in inland Washington and the Pacific Northwest began during the last ice age, when glaciers created huge ice dams. When these ice dams broke, vast amounts of water-borne topsoil from as far east as Montana rushed down and collected in the mouth of the Columbia River gorge. These soils were then blown back to eastern Washington, Oregon and parts of Idaho. Repeated sequences of flooding, silting and blowing created rolling-to-steep hills of sandy loam soils with 70 to 80 feet of topsoil held in place for centuries by short grass prairies. Farmers began tilling these extremely fertile but fragile soils in the 1880s and 1890s. Their primary crop was winter wheat because the area receives 20" to 22" of cool-season rain from October to March. For the past century, conventional farming

*Shepherd's Grain
is a values-based
food supply chain
business in the
Pacific Northwest
that markets
sustainably grown,
high-end wheat
flours*

¹This is an updated version of this case study. The original version was published June 2009.

²Values-Based Food Supply Chains: Strategies for Agri-Food Enterprises-of-the-Middle explains the terminology and general characteristics of values-based food supply chains: <www.agofthemiddle.org>.

³All websites referenced in this document were accessed on 7/19/12.



**“Our kind of
farming rewards
innovators, saves
farms, and can
change an
ecosystem.”
—Fred Fleming**



systems in the region have emphasized a monoculture of winter and spring wheat tilled and grown year after year. This monoculture has resulted in two contemporary sustainability challenges: *soil erosion* and *soil degradation* (See the “Our Farming Practices” page of the Shepherd’s Grain website <www.shepherdsgrain.com/home/our-farming-practices/>.)

Strategic and philosophical goals. Shepherd’s Grain’s goals largely stem from the thinking and experiences of two Washington wheat farmers over the past thirty years. Karl Kupers and Fred Fleming founded the Columbia Plateau Producers and developed the Shepherd’s Grain label. In the mid-1980s, after farming wheat conventionally for 10 years, Karl set two 10-year goals for his farm: 1) To develop a farming business that is economically sustainable without depending on federal commodity subsidies; and 2) To develop cropping systems that address the region’s primary agro-ecological sustainability challenges of soil erosion and soil degradation. According to Karl, “The two goals were interrelated as government commodity subsidies support monocultures which are the bases for most of our environmental problems.” (Karl Kupers, founder, interview, 2/19/07).

Over the next two decades, Karl and his colleagues developed alternative cropping systems based on crop rotations and “direct seed” tillage technologies. They also created an alternative business model based on marketing regionally identified, high-quality, differentiated food products through strategic business partnerships. These partnerships were built on values-based food supply chain principles that included cost of production pricing and transparency. As Fred put it thirty years later, “Our kind of farming rewards innovators, saves farms and can change an ecosystem.” (Fred Fleming, founder, interview, 2/19/07).

Early experiments with alternative cropping and marketing. From the mid-1980s to the late 1990s, Karl and his colleagues, who later became the Columbia Plateau Producers, experimented with new crops, crop rotations and newly developed direct-seed techniques called “no-till.” Mixing warm season and cool season grasses and broadleaf crops, the farmers experimented with canola, reclamation grasses, sunflowers, beans, lentils, spring barley and the traditional winter wheat. Financial assistance for this experimentation was provided by the USDA Sustainable Agriculture Research and Education (SARE) program and coaching by a direct-seed expert from the University of South Dakota. By the late 1990s, it was clear that the combination of crop rotations and direct-seeding was not only feasible in eastern Washington, but resulted in good yields of high-quality crops and, equally important, containment and reversal of soil erosion and degradation.

By the mid-to-late 1990s, Karl was confident that his farm could make it financially without government commodity payments. In

1999, Karl and Fred met and began exploring markets for the diverse products grown under direct-seed farming systems. Initial efforts were unsuccessful. They got further exploring wheat products used by specialty bakers. Assisted by a baker at the Grand Central Bakery in Portland, Oregon <www.grandcentralbakery.com> and the Wheat Marketing Center in Portland, Oregon <www.wmcinc.org>, a specially blended baking flour made from two wheat varieties grown by the Columbia Plateau Producers was developed over a two-year experimental period. This flour met the baker's standards for taste, performance and consistency. With the assistance from the Food Alliance <foodalliance.org>, potential customers for the new flour were identified. The first sale in 2003 was to Hot Lips Pizza, a specialty pizza chain in Portland, Oregon <hotlipspizza.com>.



Fred Fleming and Karl Kupers founded the Columbia Plateau Producers and developed the Shepherd's Grain label.

Contacts and values-based food supply chain business relationships were developed over the next several years with a range of food companies, including those featured as supply chain partners for this case study: St. Honoré Bakery <www.sainthonorebakery.com>; Hearth Bread Bakehouse;⁴ the Bon Appétit Management Company <www.bamco.com>; and Hot Lips Pizza. The 2008 Shepherd's Grain product line included high gluten flour for breads and pizza dough, low gluten flour for pastries, whole wheat flour for all-purpose baking, garbanzo beans, red beans and lentils.

Historical growth indicators

Bushels of wheat sold and sales figures: 2003: 12,000 bushels of grain were sold under the Shepherd's Grain label; 2004: 36,000 bushels; 2005: 92,000 bushels (\$640,000 sales); 2006: 187,000 bushels (\$1.6 million sales); 2007: 350,000 bushels (\$4.0 million sales).

Farmers and acreage: In 2008, Shepherd's Grain added 10 new farmers to the Columbia Plateau Producers, bringing its total number of farmers to 33. These farmers work over 100,000 acres of cropland using crop rotations and direct-seed tillage (Karl Kupers and Fred Fleming, interview, 4/21/08).

Dynamics as of 2008

Creating and marketing differentiated, higher value food products.

Product differentiation and branding. "What we do well is grow high-quality wheat and tell good stories." (Fred Fleming, interview, 4/21/08).

⁴Hearth Bread Bakehouse is no longer in business.



Harvesting wheat on a Shepherd's Grain farm.

With its original, smaller customers— St. Honoré Bakery and Hot Lips Pizza—Shepherd's Grain differentiated itself through its story. "Given our story and the quality of Shepherd's Grain flour, price was not a factor for many of our early customers." (Karl Kupers, interview, 2/19/07). For these customers, the Shepherd's Grain story was the most important differentiating characteristic, followed by product quality and, finally, price. This hierarchy is the reverse of what is found in most commodity food systems where competition is based on price and then quality, and products are not differentiated based on unique stories. According to Karl, "Maintaining our story and identity are important to us ... if that's not important to the 'big guys,' then they can go somewhere else." (Karl Kupers, interview, 2/19/07).

The key dimensions of the Shepherd's Grain *story* are:

a) environmentally friendly farming systems characterized by soil retention and regeneration, use of fewer pesticides and increased carbon sequestration (See "Our Farming Practices" section of the Shepherd's Grain website <www.shepherdsgrain.com/home/our-farming-practices/>); b) family farms, with some Shepherd's Grain farms managed by fourth or fifth generation family members; and c) a regional focus that supports the economy in the Pacific Northwest through local sourcing, shorter transportation routes and a reduced carbon footprint.

In contrast, *quality* is the most important differentiating characteristic for larger and more recent Shepherd's Grain customers including Hearthbread Bakehouse and Stone-Buhr Flour.

For these customers, story is second, closely followed and in some cases equaled by price in importance.

The key dimensions of product *quality* are: a) a unique flavor that surpasses the taste of conventional wheat flours and is critical for many artisan breads; b) nutritious whole wheat products; and c) consistency across farms, batches and years. "Flour consistency is huge in the baking industry!" (Karl Kupers, interview, 2/19/07). This consistency is a function of grain genetics, region, weather, milling, and grain and flour handling. High quality and consistency save money due to reduced waste.

But price can be an important issue with other customers. During 2008, Shepherd's Grain parted ways with a large customer because it was "only interested in price" (Karl Kupers and Fred Fleming, interview, 9/24/08).

Standards and certification. Values-based food supply chains that are larger and more complex than direct-to-consumer marketing require clearly communicated standards, and often third-party certification.

The farms associated with Shepherd's Grain are certified through the Food Alliance⁵ on a range of environmental and social standards <foodalliance.org>. Food Service of America, a primary Shepherd's Grain distributor, became a Food Alliance certified handler in 2008. During 2007, Shepherd's Grain also became a member of the Whole Grains Council <www.wholegrainscouncil.org>. "We believe that high standards and third party certification are important to prevent 'green washing' ... as long as there aren't too many labels in the marketplace." (Karl Kupers, interview, 2/19/07).


Identity preservation through the supply chain. A feature of the values-based food supply chain model is that farmers and ranchers have the right to maintain their product identities and brands as deeply into the supply chain as they choose. This may include co-branding with strategic partners. For an example of co-branding, see "Issues with supply chain partners," page 13.

Nearly all of Shepherd's Grain's sales are direct wholesale, which means the brand identity of Shepherd's Grain depends on the customers who use its products in their baking or food service enterprises. Strategies for maintaining brand identity range from pictures of Shepherd's Grain farmers on supply chain partners' websites, to a video about the Shepherd's Grain business relationship produced by the Hearth Bread Bakehouse, to visits to farms and farmer visits to Bon Appétit cafes.


Interaction with, and feedback from, customers. Shepherd's Grain communicates with its customers through 1) a monthly newsletter <www.shepherdsgrain.com/home/quicklinks/newsletter/>; 2) direct feedback from Shepherd's Grain salespeople and 3) special meetings with supply chain partners. In 2008, for example, a special meeting was held to create a pricing formula that was based on farmers' costs of production. This formula addressed the impacts of inflation and volatile grain markets on both farmers and customers (See "New pricing model specifics," page 10).

Creating effective internal organizational forms.

Enterprise structure. The Columbia Plateau Producers were organized in 2003 as a "closed" limited liability corporation (LLC), rather than a cooperative, for tax and flexibility purposes (Karl Kupers and Fred Fleming, interview, 4/21/08). Until recently, the enterprise consisted of 10 farmer owners and six additional farmer participants. Similar to "closed co-ops," the Columbia Plateau Producers seek new growers only when market demand exceeds the present group's production capacity.



**Nearly all of
Shepherd's Grain
sales are direct
wholesale ... the
brand identity
depends on the
customers in
baking and food
service enterprises**



⁵After 18 years, the Food Alliance ceased operations in 2013. Shepherd's Grain remains interested in third party certification and is considering next steps.



“We pick the best farmers and the best marketers ... so we expect a lot from them and they expect a lot from us.”
— Karl Kupers



Competent leadership and management. As indicated above, leadership and management skills have been internally generated. Karl retired from active farming in 2003 and took on marketing and customer relations for Shepherd’s Grain. This followed an early recognition that, while the Food Alliance could identify potential customers, the follow-up work, on-the-street selling and customer service had to be done by Karl. While continuing to farm and manage a small wheat seed company, Fred focuses on farmer relations, product aggregation and the logistics of transporting wheat to the mill in Spokane, Washington. During 2006, roughly 20 truckloads of wheat moved each month from Columbia Plateau Producers’ farms to the mill. Karl’s wife, Lexie, handles the recordkeeping and accounting work for Shepherd’s Grain from the Kupers’ home office.

2006 was the first year that sales of Shepherd’s Grain products were high enough for the management team to draw wages. Shepherd’s Grain has reached the stage where management structures and policies need to be developed to support the management team and the professional growth of the enterprise (See “Future dynamics,” page 12).⁶

Selecting markets and values-based food supply chain partners.

Farmer partners. Karl and Fred select farmers they think will best fit the collective enterprise. “We pick the best farmers and the best marketers ... so we expect a lot from them and they expect a lot from us. Fred and I each have one veto.” (Karl Kupers, interview, 2/19/07).

Retail/food system partners. Shepherd’s Grain developed customers and business partners in three waves: 1) early partners for whom the story was paramount and price was not (Hot Lips Pizza, St. Honoré Bakery and Cascade Baking); 2) somewhat larger customers engaged in the last few years for whom quality and consistency was foremost, with price beginning to rival the story in importance (Hearthbread Bakehouse, Rizzuto’s Pizza Crust and Stone Buhr Flour); and 3) large, mainstream customers for whom quality, reliability, traceability and price ranked uppermost, with the story still retaining some importance (PINKS Original Bakery, previously known as Mostly Muffins <www.pinksoriginalbakery.com> and Full Bloom Bakery <www.fullbloom.com>).

Processing and distribution partners. In 2008, Shepherd’s Grain marketed three types of flour: high-gluten unbleached, low-

⁶The organizational development of Shepherd’s Grain bears similarities to the early enterprise development of Country Natural Beef and Organic Valley. In all cases, competent and impassioned entrepreneurial farmer and rancher founders came to recognize that they needed particular kinds of professional assistance. For Shepherd’s Grain, this is likely to lead to a leadership mix similar to Country Natural Beef and Organic Valley.

gluten unbleached and whole wheat. All Shepherd's Grain flours are processed at the Archer Daniels Midland (ADM) mill in Spokane. This is the only significantly sized flour mill in the region. The ADM partnership makes several key contributions to the Shepherd's Grain enterprise. The first is assurance of flour quality. ADM Milling has a superior technical capacity for flour milling. Second, the reputation of ADM provides credibility in the marketplace. This credibility is particularly important for the new, very large accounts that Shepherd's Grain is engaging. Finally, ADM provides a safety net, as it takes ownership of Shepherd's Grain wheat delivered to the Spokane mill and assumes responsibility for the quality of the milled flour (Karl Kupers, interview, 2/19/07).

Shepherd's Grain will establish a business relationship with any distributor that works with a good customer. A few distributors like Food Service of America, however, are strategic values-based food supply chain partners who act as sales agents for Shepherd's Grain products. These distributors do not have authority to make big sales that would seriously impact the quantity of flour produced by Shepherd's Grain and ADM. The Food Service of America website <www.fsafood.com> provides a good example of the key characteristics for midscale, values-based food supply chain-type companies: regionally focused, privately owned, with an emphasis on quality and reliability stressing seasonality and specialty products, and recent Food Alliance certification.

Strategic partnerships replace capital and expertise. Shepherd's Grain recognizes that partnerships can replace capital and expertise, particularly in the early stages of enterprise development when resources are meager and keeping debt manageable is wise. Examples include early assistance in assessing wheat varieties and flour qualities, as well as assistance in locating customers. Current (and larger) strategic partnerships offer increasingly powerful venues for sharing the Shepherd's Grain story.

Developing effective supply chain logistics.

Production and aggregation. At the heart of the Shepherd's Grain story and values are the agricultural production systems employed by the Columbia Plateau Producers. These systems feature direct-seeding techniques and crop rotations (See the "Our Farming Practices" pages of the Shepherd's Grain website <www.shepherdsgrain.com/home/our-farming-practices/>). Crops that work well in rotation with wheat include sunflowers, buckwheat and legumes like lentils and beans (Karl Kupers and Fred Fleming, interview, 4/21/08).



All Shepherd's Grain flours are processed at the Archer Daniels Midland mill in Spokane, which provides credibility in the marketplace.



... two years in
advance ... farmers
commit to
planting given
acres of
specified wheat
varieties



The aggregation of sufficient product begins two years in advance. At this time, the farmers commit to planting given acreages of specified wheat varieties. Required acreages and product volumes are determined through close communication between Karl and Fred, as well as communication among all farmers at annual meetings of the Columbia Plateau Producers. The amount of product committed to Shepherd's Grain varies from producer to producer, with each farm committing only about 10 percent of total production and no more than 50 percent of what it produces of any given type of wheat to Shepherd's Grain to ensure sufficient market diversification (Karl Kupers, interview, 2/19/07).

Shepherd's Grain wheat is stored until needed on participating farms in 10,000 to 20,000 bushel bins that are designed to maintain grain quality (Fred Fleming, interview, 4/21/08). When needed, the grain is transported to the ADM flour mill in Spokane by a regional trucking firm. This supply chain partner has grown with Shepherd's Grain and dedicates trucks for this business. "He's an invested partner who is trusted to unload from producers' storage bins even if no one is home." (Fred Fleming, interview, 4/21/08).

Processing and distribution. To fill orders for Shepherd's Grain flour, Shepherd's Grain is responsible for delivering the specified volumes and varieties of wheat to the Spokane ADM mill. This is accomplished through farm pick-up coordination by Fred Fleming and trucking as described above. Buyers of Shepherd's Grain flour either pick up their orders at the ADM mill or arrange for delivery with trucking firms of their choice.

Accounting. Columbia Plateau Producers purchases wheat from individual farmers and re-sells it to ADM Spokane at an agreed upon price. ADM, in turn, mills it into flour and sells it to customers at a price determined by Shepherd's Grain that includes the ADM milling fee. While invoicing for final sales is done by ADM, tracking and accounting of all transactions up to, and including, sales to ADM are currently done by Karl's wife, Lexie.

Logistical coordination. Coordination of Shepherd's Grain logistics is primarily done by Karl, Fred and Lexie. Karl is in regular contact with ADM Milling and closely tracks orders and sales of Shepherd's Grain flour throughout the year.

Achieving economic sustainability.

Pricing philosophy. After discussions with a miller and a baker, an early decision was made to price Shepherd's Grain wheat on a "cost of production plus a reasonable rate of return" basis, rather than charging a premium above commodity wheat prices

(Karl Kupers, interview, 2/19/07). Thus the price of Shepherd's Grain flour picked up at the ADM mill reflects payments to producers, transportation costs to the mill, Shepherd's Grain administrative costs and ADM's milling fee. Additionally, it is Shepherd's Grain's policy to charge the same rate to both small and large buyers of its flour at the ADM mill in Spokane. "This creates honest distributors ... as buyers know what price distributors paid for our flour." (Karl Kupers, interview, 2/19/07).

Until recently, prices for each upcoming year were determined during the summer. Prior to 2007, Shepherd's Grain prices remained stable for a year, a practice highly valued by Shepherd's Grain's business partners. In 2006, the cost of Shepherd's Grain flour at the mill was \$19.28, \$15.73 and \$16.36 per hundred-weight for high gluten, low gluten and whole wheat flour, respectively (Shepherd's Grain Newsletter #32; back calculated from 2007 numbers).

New pricing model. 2007 presented the following new challenges and opportunities for negotiating a path toward economic sustainability through values-based food supply chain-oriented pricing practices (Shepherd's Grain Newsletters #32-#35).

- A six-month exercise, undertaken with a farm management specialist from Washington State University Extension, measured the true costs of production for the Columbia Plateau Producers. This analysis revealed that the Shepherd's Grain producers had "... been selling for far less than their costs" (newsletters #32 and #33);
- Because poor weather conditions during the 2007 growing season caused an average 20 percent reduction in yields, costs of production per bushel increased significantly. This led to 21 to 26 percent price increases for Shepherd's Grain flours (newsletter #32); and
- Prices for commodity wheat spiked in 2007, reaching levels 60 percent higher than Shepherd's Grain paid to its producers. This led to psychological pressure from family members and/or landlords to increase the prices paid by Shepherd's Grain to its farmers. The higher price of conventional wheat also reduced the capacity of Shepherd's Grain producers to compete with their conventionally farming neighbors for leased land (newsletters #32-#35).

Shepherd's Grain addressed these challenges and opportunities by:

- Assuring Shepherd's Grain customers that prices would be stable through November 2007 (newsletter #32);



Shepherd's Grain has put a lot of thought into developing its fair pricing model, incorporating true costs of production for participating growers.



**Prices paid to
Shepherd's Grain
producers are
determined twice
a year and hold
for six months.**



- Convening a meeting of producers, customers and ADM representatives to create a framework for “developing a pricing mechanism that maintains our sustainable goal of covering our cost of production and providing the buyer with a stable and fair price” (newsletter #34). “Again, our goal is sustainability for everyone in our value chain and that is foremost in all our decisions” (newsletter #32); and
- Developing a pricing model for periods of extreme commodity market volatility that can be “proactive for all participants.” This pricing model will give “both the producer and the buyer early indications of price for planning decisions,” including planting decisions for farmers, with the aim to “ensure adequate supply and provide buyers with pricing forecasts for year-long contracts” (newsletter #35).

New pricing model specifics: Shepherd's Grain developed a new pricing protocol with ADM Spokane and several of its larger, mainstream supply chain partners during the fall and winter of 2007-08.⁷ This protocol was designed to protect all supply chain partners by maintaining cost of production-based pricing and building in allowances for inflation and highly volatile grain commodity markets.

- a) Prices paid to Shepherd's Grain producers are determined twice a year and hold for six months. Initial prices are set in February for March through August; subsequent prices are set in August for September through February.
- b) February-set prices paid to Shepherd's Grain producers are based on: 1) the previous year's average cost of production for a representative sample of Shepherd's Grain producers; 2) an inflation factor, based on changes from the previous year in producer's input costs; and 3) a reasonable profit margin. Shepherd's Grain profit margins are comparable to those of other key supply chain partners (Karl Kupers and Fred Fleming, interview, 9/29/08).
- c) August-set prices paid to Shepherd's Grain producers are based on February-set prices plus an indexing of the average commodity wheat prices over the previous six months (150 market days). Three outcomes are possible based on prices and a \$1/bushel “inflation cushion”:
 - If the 150-day average commodity wheat price is within \$1/bushel of the Shepherd's Grain February-

⁷These discussions regarding the determination of Shepherd's Grain prices respect the values-based food supply chain commitments to inclusion, transparency and attention to the economic welfare of all strategic partners.

set price, the price remains the same for the next six months (September through February);

- If the 150-day average commodity wheat price is more than \$1/bushel higher than the Shepherd's Grain February-set price, the August-set price (September through February) is adjusted upwards by 70 percent of the difference between the two prices (protection for producers); and
 - If the 150-day average commodity wheat price is more than \$1/bushel lower than the Shepherd's Grain February-set price, the upper limit for the next inflation cushion is raised by 70 percent of the difference, so that indexing in the next six-month period begins with a difference higher than \$1/bushel (protection for customers).
- d) As indicated above, the price charged to customers at the ADM-Spokane docks is the sum of the cost of payment to producers, transportation costs to the ADM mill, Shepherd's Grain administrative costs and ADM's milling fee. Prices are transparent within the supply chain: prices for 50-lb. bags of flour are the same for small and larger customers. Prices are lower, however, when flour is purchased in bulk (railroad car loads), as is being increasingly done by Shepherd's Grain's newer, larger, mainstream customers.⁸

Payment practices. ADM directly deposits payments into the Columbia Plateau Producer's bank account. As a result, Lexie Kupers is able to write payment checks to farmers within three weeks of the wheat leaving their farms (Karl Kupers and Fred Fleming, interview, 4/21/08).

Communicating sustainable economics in the marketplace. A theme that emerged from the 2008 meetings on price determination was a "... desire by the buyers, the mill and the producers to forge ahead in an organized way to advance awareness of the term 'sustainability' in the marketplace," including communicating with consumers the values and true costs contained in sustainably raised food products (newsletter #34). Ideas for communicating sustainability values and developing relationships between Shepherd's Grain producers and customers through "adoption" conversations were voiced at the March 2008 Food Alliance meeting (newsletter #36).

Securing technical support. Shepherd's Grain leaders received financial and technical support for developing direct-seed crop rota-

⁸Compare the adjustable pricing policy that Shepherd's Grain is adopting and Red Tomato's seasonally adjusted pricing model.



*As Shepherd's Grain
has grown, it has
had to strengthen
its organization
with formal policies
and procedures.*



tions, wheat varieties and flour blends. Technical support included assistance from a Washington State farm management economist with analyzing costs of production for wheat rotations; ongoing research by a WSU agronomist on new wheat varieties that express the desired taste qualities; milling and testing small batches of these experimental wheat varieties at the USDA's Western Wheat Quality Laboratory <www.wsu.edu/~wwql/php/index.php>; a relationship with the Spokane Community College in which culinary students experimented with new Shepherd's Grain flour blends and provided feedback to Karl and Fred; and a new consultation with the Cooperative Development Services regarding organizational structures for the Columbia Plateau Producers.

Future dynamics, as envisioned in 2008

Internal organizational issues. As Shepherd's Grain has grown, it has had to strengthen its organization with formal policies and procedures. To that end, Shepherd's Grain held a facilitated meeting of its farmers during the spring of 2008 focused on the organizational structure of the Columbia Plateau Producers. Both spouses of farm families participated.⁹ The farmers expressed strong support for the Shepherd's Grain enterprise. The group decided to explore a new management structure, featuring a nine-person Board of Management¹⁰ charged with assisting Karl and Fred with policy development for the Shepherd's Grain enterprise and procedures to guide its staff. In addition to Karl and Fred, the new Board of Management includes four producer-owners and three non-owning stakeholders (Karl Kupers and Fred Fleming, interview, 9/29/08).

The three non-owning stakeholder representatives on the Board of Management are recruited from the wholesale baking, food service and retail market sectors of the Shepherd's Grain supply chain. This business plans to work during the next year with an organizational consultant from the Cooperative Development Services to explore new structures, policies and procedures. "Fred and I are smart enough to know we need help as we think about the future of Shepherd's Grain ... We're hoping to build a wider foundation on which Shepherd's Grain can become great." (Karl Kupers and Fred Fleming, interview, 9/29/08).

Regarding administrative support, the business decided in 2008 to provide Lexie Kupers with some accounting support, and Karl and Fred assistance with some of the day-to-day administrative tasks "...so we can escape the 'tyranny of the present' and spend more

⁹For an example of a conscious organizational commitment to support the participation of farm and ranch women in business meetings, see the Country Natural Beef case study.

¹⁰The Board of Management was never formalized as a decision-making body. See 'Addressing organizational maturity and leadership transition' in the case update, page 21, for a discussion of a different approach to managing Shepherd's Grain.

time thinking of the future and doing a better job of being the face of Shepherd's Grain." (Karl Kupers and Fred Fleming, interview, 9/29/08).

Issues with supply chain partners. Based on the growth of Shepherd's Grain markets, 10 new wheat farmers were invited to join the Columbia Plateau Producers in 2008, bringing the number of participating farmers to 33. "We had no problem recruiting these new farmers. There is considerable 'producer envy' of Shepherd's Grain producers. These folks had been preparing for membership in our group by getting Food Alliance certification." (Karl Kupers and Fred Fleming, interview, 9/2/08).


Business with mid-sized customers continues to grow. The co-branding, retail product experiment with the Stone-Buhr Flour Company appears to be successful. A new line of all-purpose flour milled from Shepherd's Grain wheat is increasingly found on supermarket shelves across the Pacific Northwest. The five-pound Stone-Buhr flour packages carry the Shepherd's Grain and Food Alliance labels. "Shepherd's Grain has decided not to get directly into retail sales, but we can have a retail presence through co-branding with Stone Buhr." (Karl Kupers, interview, 4/21/08).¹¹

Shepherd's Grain has entered into new partnerships with several large, mainstream regional baking companies including PINKS Original Bakery (formerly Mostly Muffins) in Seattle, Washington <www.pinksoriginalbakery.com/> and Full Bloom Bakery in Newark, California <www.fullbloom.com>. Relationships with these larger companies confirm the differentiating dimensions important to larger firms discussed in "Product differentiation," page 3; quality, reliability, traceability, price and story remain important. See parallel values-based stories affirmed on the Full Bloom Bakery website.


Economics and efficiencies. The pricing formula described in "Achieving economic sustainability" was employed once during 2008 to adjust the price of the hard red winter wheat that is used for low gluten flour. Land rental prices in eastern Washington are increasing in response to high commodity prices (Karl Kupers and Fred Fleming, interview, 9/29/08) (See the discussion of Shepherd's Grain's new pricing model in "New pricing model specifics," page 10).

Strategies for increasing markets and growth of Shepherd's Grain. Shepherd's Grain decision makers see increased growth for the enterprise in the near-to mid- future with projected sales of 550,000 bushels in 2008. "One million bushels of wheat sold in 2010 is well within our reach." (Karl Kupers and Fred Fleming, interview,

¹¹The co-branding effort with Stone-Buhr is no longer in place. As of 2012, Shepherd's Grain is selling retail flour through Seattle's Fisher Flour Mills: <ablipontheradar.blogspot.com/2012/04/i-try-my-hand-at-making-artisan-bread.html>.



***“We also can see replicating the Shepherd’s Grain idea in other areas. It’s better to move the idea, than move the wheat.”
—Karl Kupers and Fred Fleming***



4/21/08). To reach those quantities will require developing the company’s large, mainstream accounts and engaging the following organizational issues: internal management structures, logistical capacity and new producer recruitment and education.

A mature Shepherd’s Grain: What does Shepherd’s Grain want to look like when it grows up? As with Red Tomato, Shepherd’s Grain is just beginning to look at issues of organizational maturity, as its early years were focused primarily on growth. Organizational structures are being put in place to more effectively address issues that will affect Shepherd’s Grain’s future.

“We can envision a time when Shepherd’s Grain will reach a plateau in terms of volume and the emphasis will shift to making sure that customers are using our products for the right reasons ... We also can see replicating the Shepherd’s Grain idea in other areas. It’s better to move the idea, than move the wheat.” (Karl Kupers and Fred Fleming, interview, 9/29/08).

Positioning values-based food supply chains in a troubled (and contracting) economy. Like other enterprises in these case studies, Shepherd’s Grain has little experience with contracting economies. Some initial thoughts:

“We will likely see more separation between price sensitive and value sensitive customers ... We are also seeing the emergence of new areas of value differentiation, highlighted by the growing importance of food safety and carbon footprints.” (Karl Kupers and Fred Fleming, interview, 9/29/08).

Case update

During 2009 through 2011, Shepherd's Grain grew and matured. Co-founders Karl Kupers and Fred Fleming turned more of their attention to long-run, big picture issues. **Highlights of this three-year period include:**

- The number of growers increased from 33 to 43, with 12 new growers—two growers quit. Producing for Shepherd's Grain is not for every farmer. Producers must follow strict growing guidelines, have a long-term perspective and be part of a team. All new producers are carefully vetted. Karl and Fred are encouraged by the fact that the new growers are relatively young, with an average age of less than 50.
- The volume of wheat marketed by Shepherd's Grain increased from 380,000 bushels in 2009 to 470,000 bushels in 2010 and 550,000 bushels in 2011. While impressive, these figures are lower than ambitious projections (made in 2007 and 2008) to market one million bushels by 2010. The slower expansion can be traced to supply challenges. The annual increases in bushels resulted both from adding new growers and from purchasing more wheat from current growers.
- All participating growers continue to supply both Shepherd's Grain and the broader commodity wheat market. Individual growers sell only eight to 12 percent of their production to Shepherd's Grain. To stabilize supply in future years, Shepherd's Grain is considering a base commitment of 10 percent of production from each grower for two years. There would be a second contracting period each year around harvest time to match supply to more current market needs (Karl Kupers, email, 3/9/12). In the long run, Karl and Fred hope to use 30 to 40 percent of each grower's production in this values-based food supply chain.
- In summer 2011, a late harvest forced Shepherd's Grain to purchase wheat on the open market in order to fulfill short-term commitments. (Country Natural Beef, another farmer cooperative, was forced to buy calves outside of their co-op during this same period because high commodity prices convinced several ranchers to leave the co-op). Shepherd's Grain openly explained this unusual purchase to its customers, who accepted the deviation. Shepherd's Grain is focused on developing a supply system that minimizes the possibility of this type of shortage in the future (Karl Kupers, interview, 10/7/11).
- Shepherd's Grain continues to add new products and now supplies six flours <www.shepherdsgrain.com/home/our-products>, up from only three in 2008. New products include cake and pastry flours. Shepherd's Grain growers have also



After working with Stone-Buhr on selling co-branded products, Shepherd's Grain switched to selling retail flour through Seattle's Fisher Flour Mills.



**The decade-long
history of
Shepherd's Grain is
largely the story of
the diverse
strategies used to
increase prices for
farmers**



started to produce and sell barley as a livestock feed grain to Country Natural Beef.

- The underlying Shepherd's Grain story of the farmers' attempts to preserve the soil, support family farms and sustain small towns continues to attract considerable interest. In addition to widespread media attention, the company won the 2010 Business Leadership award from the Natural Resources Defense Council <www.nrdc.org/health/growing-green_2010.asp>.

Values-based food supply chain pricing principles: Confronting the difficult challenge of high commodity prices. From the beginning, Shepherd's Grain has been motivated by the goal of changing the way that wheat is priced at the farm gate by offering farmers a set, dependable price. The decade-long history of Shepherd's Grain is largely the story of the diverse strategies used to increase prices for farmers and the lessons learned in making this happen.

In a December 2011 Shepherd's Grain newsletter,¹² Karl wrote about the pricing approach developed by Shepherd's Grain:

"For both the producer and the buyer this has been a learning experience and a change in the way they conduct business. With time, both have become more comfortable and even quite supportive of utilizing the Shepherd's Grain sustainable pricing system as one more reason to be a part of the value chain Shepherd's Grain represents."

The newsletter discusses the roller-coaster price swings for the commodity wheat market that would have resulted in a 25 percent change in flour prices and contrasts the stable prices that Shepherd's Grain is able to provide to both farmers and buyers.¹³

Shepherd's Grain has faced the greatest difficulties not when commodity wheat prices are low, but rather when they are high. These problems are sometimes referred to as the 'commodity tsunami'—producers are swept away from Shepherd's Grain for higher prices on the open market when Shepherd's Grain can no longer offer a premium. In addition, higher commodity prices pose a problem for Shepherd's Grain producers who lease some of their land. When commodity wheat prices increase, landowners increase rents. Under Shepherd's Grain's stable price model, producers agree to fixed wheat prices and are unable to put in competitive bids on leased lands. Shepherd's Grain has improved and continues to work on a pricing system that will handle volatile wheat markets, especially on the upside.

¹²As of 2010, Shepherd's Grain no longer numbers their newsletters.

¹³The transparent mechanisms for setting prices are detailed in "Communication with customers and consumers," page 18.

The recent recession in the general economy posed relatively few problems for Shepherd's Grain because consumer demand declined only slightly for their products (Fred Fleming, interview, 10/3/11). Compared to many other agricultural products sold through values-based food supply chains, wheat has a very low per-unit price; price is a much greater concern for the farmers than for any of the other supply chain participants. The millers, transporters and distributors are shielded from many of the impacts of price changes because they earn their returns based on quantities handled. The bakers and chefs, appearing to be in wheat-dependent businesses, are surprisingly unaffected by wheat price changes. For example, David Yudkin, owner of Hot Lips Pizza, observed that the cost of flour has a relatively minor impact on his bottom line while the cost of cheese is of much greater consequence (David Yudkin, interview, 12/13/11).¹⁴

Relationships with strategic partners: Strengthening the team concept. An America's Heartland video <www.youtube.com/watch?v=Ijhbl_dkSYA&feature=share> profiles two very different Shepherd's Grain customers in Spokane, Washington: a chef at an upscale hotel and a tortilla manufacturer, who share a strong attachment to high-quality, identity-preserved flours. In the video Karl observes, "Once they know that they can care about where their food comes from, they do." It's a long, complex process to convince diverse customers to choose Shepherd's Grain. Karl and Fred must understand the business cultures and needs of both small and large companies in order to better serve and retain them.

On the supply side, Karl and Fred have always recognized the need to find cooperators to mill, distribute and market Shepherd's Grain flours. They continue to refine the language used to recruit and retain partners and now speak of all the key collaborators as part of "the Shepherd's Grain team." (See, for example, this October 2011 Shepherd's Grain newsletter: <www.shepherdsgrain.com/home/quicklinks/newsletter/2011/october-2011-newsletter>.)


Most key partnerships date from the earliest days of the business. The relationship with the Archer Daniel Midlands (ADM) mill in Spokane, Washington, remains both crucial and, for some of the other supply chain partners, almost shocking since ADM is a very large, conventional food system business. Karl devoted an entire December 2010 blog to extolling the unique attributes of the mill and its staff: <www.shepherdsgrain.com/home/quicklinks/newsletter/2010/the-art-of-milling-as-much-as-i-know>. ADM shared its positive perspective on the partnership here: <www.adm.com/en-US/company/advertising/Applauds/2009/Pages/Spokane.aspx>.

Helen York of *Bon Appétit* wrote a very positive *Atlantic Monthly* article on Shepherd's Grain titled, "What a Grain Co-op Can Teach



Fred Fleming attends an event at a restaurant that uses Shepherd's Grain products—giving farming a face.

¹⁴This USDA article examines the limited impact that increases in wheat prices have on final products: <www.ers.usda.gov/AmberWaves/June11/Findings/FoodCommodity.htm>.



Karl and Fred have actively supported the development of other Agriculture of the Middle-type enterprises in the Pacific Northwest, even those with no ties to their business



Us About Changing the Food World.” She added the subtitle: “To make sustainability a reality, small producers might have to forge coalitions—even with industrial giants.” (See <www.theatlantic.com/health/archive/2011/08/what-a-grain-co-op-can-teach-us-about-changing-the-food-world/243530>.)

Looking toward the future, Karl and Fred see the ADM relationship as central to the proposed development of a Shepherd’s Grain supply chain for Southern California with the wheat sourced in that region. This will represent a fulfillment of Karl and Fred’s desire to export the ideas rather than the actual wheat.

In an October 2009 Shepherd’s Grain newsletter, Karl explained his growing appreciation for the role that distributors play:

“Everyone has heard the story of the ‘middle man’ and the seemingly huge chunk of profit ‘he’ elicits from every transaction. Fred and I certainly had that impression firmly in our minds when we started Shepherd’s Grain. However, we realized that we could not deliver flour to Portland from Spokane one bag at a time and call that sustainable. In the beginning we said we would just have to work with that difficult group known as the, well you know what they were called ... [We now recognize] the ‘middle man’ is as necessary as the producer, miller and baker in the success of Shepherd’s Grain.”

These examples show how viable relationships in a values-based food supply chains are constructed and operate. Karl and Fred have actively supported the development of other Agriculture of the Middle-type enterprises in the Pacific Northwest, even those with no ties to their business. As Karl said, “We hope someday everyone’s doing this.” (Karl Kupers, interview, 10/7/11 and Peter Truitt, interview, 12/22/11).

Many customers, especially those of long standing, have quite a bit invested—a key word used by customers—in their relationships with Shepherd’s Grain, and specifically with Karl and Fred. They incorporate the Shepherd’s Grain story into their own. The very first Shepherd’s Grain customer, Hot Lips Pizza’s David Yudkin, said, “I am proud to be part of the Shepherd’s Grain story.” (David Yudkin, interview, 12/13/11). Other relatively recent customers joining the Shepherd’s Grain team after a long trial period include Fisher Scones <www.fisherscones.com/about.aspx> and Krusteaz <www.krusteaz.com>.

Communication with customers and consumers: Focusing on meaningful interactions, traceability and transparency. At one time, Karl and Fred posted their home phone numbers on the bottom of the Shepherd’s Grain website homepage. Karl recounts a 2011 call from a satisfied retail flour consumer: “You know why I am calling you?” the caller said. “Because I can. I can’t call General

Mills.” (Karl Kupers, interview, 10/7/11). This ability to quickly and easily reach “the boss” partly defines what Shepherd’s Grain refers to as “farming with a face”—running the business in a way that creates more connections with customers and consumers.

Shepherd’s Grain also connects with partners and consumers by sponsoring annual field days that provide bakers and chefs with memorable on-farm experiences and direct interactions with growers. (See <www.bamco.com/blog/archives/shepherds-grain> for a farm visitor’s perspective.) Karl and Fred also send growers to participate in numerous “farmer in the city” events. (For example, see <www.bamco.com/blog/archives/shepherd%E2%80%99s-grain-in-the-city>.)

In a February 2011 newsletter, Karl observed, *“The mere opening of channels between the raw product and the baker or chef has created a transparency discouraging unclear marketing practices within the system. That open communication has created transparency on not only how the raw product is being produced and how the system treats the environment, but also opens the door to who is the source of the base product.”*

While other Agriculture of the Middle supply chains, such as Organic Valley, Country Natural Beef and Red Tomato, sell farm products that remain relatively identifiable from field to consumer, Shepherd’s Grain products are not as traceable. The vast majority of their flours are sold to wholesale customers who transform them into processed products purchased by the final consumers. This greatly increases the challenge of linking raw ingredients back to producers. Shepherd’s Grain has worked to develop a system that allows wholesale sacks of flour to be traced back to the set of farmers who delivered product to the mill on a given day. (See <www.shepherdsgrain.com/home/find-your-grower>.)

Retail partners must also play key roles to keep Shepherd’s Grain on the radar of customers and end consumers. Shepherd’s Grain works hard to ensure that their products are of exceptional quality and their story is compelling enough so that retail partners find it worthwhile to maintain the Shepherd’s Grain identity.

Extraordinary transparency is another key characteristic of Shepherd’s Grain’s business model. An August 2009 Shepherd’s Grain newsletter reveals the share of the wholesale flour price going to the different supply chain participants: 18.36 percent to the mill; 4.69 percent for trucking the grain to the mill; 7.82 percent to Shepherd’s Grain parent company, Columbia Plateau Producers, for logistics, inventory management and marketing; and 69.13 percent to the wheat producers.

Similarly, a November 2011 newsletter <www.shepherdsgrain.com/home/quicklinks/newsletter/2011/november-2011-newsletter>



A spirit of cooperation between Shepherd's Grain and its supply chain partners is part of the story.

provides an explanation and breakdown for the calculations of “the true cost of production per bushel.” These costs are detailed as:

Variable costs	60 percent
Fixed costs	6 percent
Capital expenditures	26 percent
Medical/retirement contribution	3 percent
Return to management	5 percent
Total	100 percent

This total is then reduced by 3 percent to subtract the USDA subsidy payments to producers. As has been true from the beginning, an effort is made to fix this price for an entire year and to set it six months in advance of when the flour will be delivered. Both transparency and price stability are viewed by Shepherd's Grain as essential (Karl Kupers, interview, 10/7/11).

Deeper differentiations: Developing a more environmentally friendly production system and creating superior products. The direct seeding production system and associated environmental benefits remain central to the differentiation of Shepherd's Grain flours in the marketplace. (See <www.shepherdsgrain.com/home/our-farming-practices> for a simplified definition of Shepherd's Grain producers' farming practices.) The definition of the production system is ongoing and based on continuing experimentation and communication with supply chain partners. Shepherd's Grain faced some push back on their use of Roundup <www.localharvest.org/blog/15945/entry/fluff_pieces_on_no_till>, and Karl responded with an explanation of how chemical production methods fit into a direct seeding system. (See this Grist interview with Karl for some comments on Roundup: <grist.org/article/2010-04-19-interview-with-growing-green-business-leader-karl-kupers>.)

This approach gained support as leading Portland baker Ken Forkish, of Ken's Artisan Bakery, posted a detailed explanation of the research process he followed in selecting his flour, adding, “I'm feeling okay about Roundup now.” (See <www.kensartisan.com/nw_palate.pdf>.) Ken chose what he characterized as regionally produced sustainable flours over the organic flours he had used previously.

Karl and Fred believe that, “No other competitors have the depth of story that we do.” (Fred Fleming, interview, 10/3/11). That story includes the production system, the social system represented by this group of family farms, the traceability of their products and the spirit of cooperation exhibited by supply chain partners.

Shepherd's Grain now sells six different flours, allowing customers to better meet baking needs. Member producers are required

to grow specific varieties within each of the wheat types. These production requirements and the “hands-on” knowledge at the ADM mill together mean that more consistent baking quality is achieved from all products. (See <www.shepherdsgrain.com/home/our-products>.) Karl and Fred have entered into preliminary discussions with a group of 13 wheat producers in southern Alberta, Canada, as a potential source of higher protein wheats (Karl Kupers, email, 3/9/12).

To further their goal of superior products, Shepherd’s Grain provides the services of a baking consultant to help retail customers experiment and learn how to best use their flours. They have not heavily marketed this service, but it does represent an additional point of differentiation from other flour suppliers.

Shepherd’s Grain has reached a point where it has both the technical skill to service artisan bakers and the magnitude to work with fairly large partners (Karl Kupers, interview, 10/7/11).

Addressing organizational maturity and leadership transition.

Shepherd’s Grain was organized as a Limited Liability Corporation with Karl and Fred as the primary owners. A limited number of the original growers also have small ownership stakes. In the initial years, the two partners ran the entire business. In 2007, Karl and Fred sought to broaden management and access additional skill sets and brainpower by recruiting key supply chain partners as board members. However, the board was never formalized as a decision-making body. That experiment failed due to unmanageable conflicts of interest as the new board members focused on their own priorities rather than on Shepherd’s Grain.

In the aftermath of this attempt, Karl and Fred set to work on multiple fronts to prepare Shepherd’s Grain for the future. To improve day-to-day operations, they added a second marketing associate to better serve accounts in additional Northwest markets. They also hired business consultants “to cleave the DNA from Fred and Karl so the story and face of Shepherd’s Grain can go on as others learn to drive the business.” (See <www.shepherdsgrain.com/home/quicklinks/newsletter/2010/november-2010-newsletter>.) This effort produced two new tag lines: “An honest partnership between farmer and baker” and “It’s simple: grow good wheat, grow a successful future for everyone.” (See <www.shepherdsgrain.com/home/quicklinks/newsletter/2011/january-2011-newsletter>.) Developing these condensed statements is but one step in developing a business that is less dependent on Karl and Fred.

In 2011, Karl and Fred began working on a new management initiative to organize a grower board with five or nine members that would assume some long-run decision-making responsibilities for Shepherd’s Grain. As Fred put it, “We have to recognize that others have a share in running the company.” (Fred Fleming, interview,



*Shepherd’s Grain
provides the
services of a
baking consultant
to help retail
customers
experiment and
learn how to best
use their flours*



10/3/11). While Fred may serve on the board, Karl is now the general manager. The extent to which this would actually broaden the management of Shepherd's Grain is unclear, as Karl and Fred will maintain their 60 percent ownership stake. Still, the two partners have demonstrated their willingness to experiment and adapt as this values-based food supply chain business moves forward.

Policy note

Shepherd's Grain producers make extensive use of federal agriculture and economic development programs. They participate in all commodity programs for which they qualify; the USDA payments are subtracted when the cost of production is calculated. Most producers also use conservation programs, such as the Conservation Stewardship Program (CSP), the Environmental Quality Incentives Program (EQIP), the Conservation Reserve Program (CRP) and the Conservation Reserve Enhancement Program (CREP). Most farms are also using Farm Credit Services loan programs.

One of the Shepherd's Grain producers has been awarded two USDA Rural Development Value-added Producer Grants (VAPG). Quite a few have been successful in procuring Sustainable Agriculture Research and Education (SARE) grants. (Shepherd's Grain GM and co-founder Karl Kupers was Chair of the Western SARE program Administrative Council.) Ten to 15 percent of Shepherd's Grain producers are creating biofuel products, with one producer receiving USDA funding. Almost all growers fully participate in crop insurance.

At the state level, conservation programs have had a huge impact on Shepherd's Grain growers adopting direct till methods. These have been individualized at the district level. Shepherd's Grain has also been involved with Washington State University on a variety of research projects related to breeding, direct seeding and farm management.

It's possible that Shepherd's Grain could apply for funding from private companies doing local aggregation and/or marketing, perhaps leveraging requests with a Risk Management Agency grant. Shepherd's Grain has been part of a private carbon sequestration project, and they have worked with the Chefs' Collaborative in Washington.

Karl believes that CRP has removed so much good land from production that input suppliers are moving farther away (Karl Kupers, interview, 12/15/10).

Shepherd's Grain has tried to stay out of policy change efforts. They would prefer to see the markets drive production rather than government. Their goals and consumer demand drive planting and

stewardship decisions, but Shepherd's Grain will continue to participate in government programs. They do support country-of-origin labeling (COOL). And Karl believes that the USDA should ease food safety regulations on Farm-to-School. He argues that funding for regional food should be a high government priority and wants the USDA to better showcase Agriculture of the Middle (AOTM).

Credits

Fred Fleming and Karl Kupers provided the primary interviews upon which the original case study, the update and policy note are based. The policy note was authored by Kate Clancy, University of Minnesota Institute for Sustainable Agriculture.

This project was supported by the National Institute for Food and Agriculture of the Cooperative State Research, Education and Extension Service, USDA, Grant #2006-55618-17014 and Grant #2010-85211-2057.

Organizations involved with this report:

The National Initiative on Agriculture of the Middle is concerned with a disappearing sector of midscale farms/ranches and related agrifood enterprises that are unable to successfully market bulk commodities or sell food directly to consumers. See www.agofthemiddle.org. The initiative has three areas of emphasis: new business and marketing strategies; public policy changes; and research and education support.

The Center for Integrated Agricultural Systems (CIAS) is a research center for sustainable agriculture in the College of Agricultural and Life Sciences, University of Wisconsin-Madison. CIAS fosters multidisciplinary inquiry and supports a range of research, curriculum and program development projects. It brings together university faculty, farmers, policy makers and others to study relationships between farming practices, farm profitability, the environment and rural vitality. For more information, visit www.cias.wisc.edu or call 608-262-5200.

Many thanks to the organizations and individuals who provided the information for the case studies.

Edited by Lisa Bauer and Cris Carusi, CIAS. Publication design by Ruth McNair, CIAS.

Reviewed by Kate Clancy, Fred Kirschenmann and Jim Stute.

Photos from Shepherd's Grain.