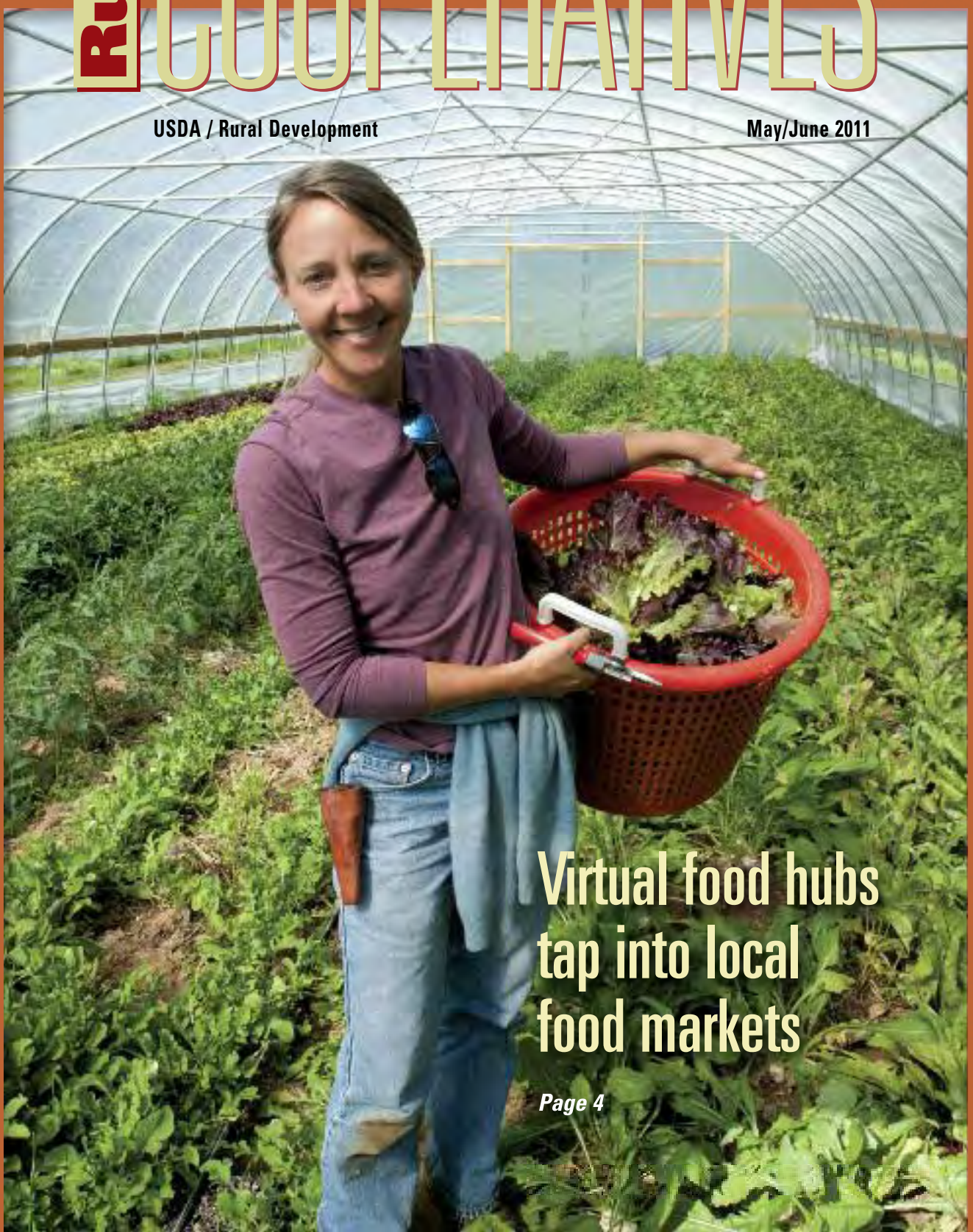


Rural COOPERATIVES

USDA / Rural Development

May/June 2011



Virtual food hubs
tap into local
food markets

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Commentary

Winning the future with food hubs



By **Kathleen Merrigan**, Deputy Secretary
U.S. Department of Agriculture



To start the new year, I published an article in USDA's *Rural Cooperatives* magazine (January/February 2011 issue) reflecting on the successes of the Know Your Farmer, Know Your Food initiative. This USDA initiative creates new economic opportunities for our nation's farmers and ranchers, promotes local and regional food systems and expands access to affordable, fresh and local food. In this month's cover story, *Rural Cooperatives* highlights one of the ways that the Know Your Farmer, Know Your Food initiative is accomplishing these goals: food hubs.

On the road, I talk to farmers, producers, consumers, professors, retailers, buyers and other stakeholders involved in building local and regional food systems. Though these food systems are diverse, they are often characterized by common challenges. These challenges include the ability of small- and mid-sized producers to gain access to infrastructure — such as trucks, warehouses, processing space and storage — in order to reliably meet market demand, especially from larger institutional buyers in their region.

However, this infrastructure often requires more capital investment, infrastructure maintenance and dedicated oversight than an individual producer can handle.

The solution that can allow these local and regional markets to scale up? You guessed it: a food hub! This centrally located business management structure can assist with aggregation, storage, processing, distribution and marketing of locally and regionally produced foods.

On a recent trip away from the nation's capital, I had the pleasure of speaking at the Making Good Food Work conference in Detroit. The conference served as an incubator of new ideas to successfully distribute local and regional foods and bolster regional food systems. This made it the perfect venue for USDA to announce the results of a nationwide analysis of food hubs. Some exciting findings are presented in this study, conducted by the Know Your Farmer, Know Your Food initiative's Subcommittee on Food Hubs, in partnership with the National Association of Produce Market Managers, the Wallace Center at Winrock International and

the Project for Public Spaces.

The analysis found that more than 100 food hubs are currently in operation around the country, over 70 of which were analyzed for this study. On average, each food hub creates 13 jobs, and nearly 40 percent of the food hubs analyzed were started by entrepreneurial producers, producer groups and other organizations looking to build a strong distribution and aggregation infrastructure for small- and mid-size producers.

Food hubs represent an excellent opportunity for farmer and rancher cooperatives to pursue high-value, local food markets. As we aim to create economic growth and revitalize rural communities, this is exactly the type of innovation we need to win the future.

But the benefits of food hubs are not merely economic:

more than 40 percent of existing food hubs are specifically working in “food deserts” to increase access to fresh, healthful and local products in communities underserved by full-service food retail outlets. Nearly all food hubs surveyed offer fresh produce. At a time when 65 percent of adults are overweight or obese, and one in three children born after the year 2000 are predicted to be diagnosed with type II diabetes, the health impacts of food hubs are vital.

Examples of successful food hubs abound. In my commentary featured in the January/February 2011 issue of this magazine, I highlighted a co-op in Oklahoma that began as a buying club in 2003 with 20 local producers and \$3,500 worth of sales on its opening day. Today, the co-op has \$70,000 in monthly sales and a membership base of 3,000 individuals purchasing from 200 Oklahoma-based producers. In Detroit — America's

largest city without a supermarket — Eastern Market Corporation is serving as a food hub by working to coordinate aggregation and distribution of healthy foods from regional producers.

For a more in-depth look at the ways food hubs can help small farmers tap into regional food markets, be sure to read this month's cover story about a virtual food hub network in Richmond, Va., which has created an Internet marketing platform that is helping the owners of dozens of small farms and ranches serve the growing demand for local foods. ■



For reasons unknown, a rooster crosses the road at Tuckahoe Plantation, in Goochland County, Va., part of the Lulus Local Food network of food hubs.

Features

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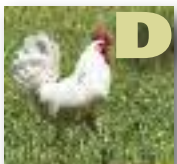
ON THE COVER: Amy's Organic Garden owner Amy Hicks harvests greens at her farm in Charles City, Va. She is a member of Fall Line Farms, a local food cooperative in Richmond that uses the Lulus Local Food Internet platform to market produce. Story on page 4. USDA photo by Lance Cheung.



Virtual food hub helps Virginia producers tap into LOCAL FOOD MARKETS

By James Matson, Matson Consulting
Chris Cook, VA FAIRS

Editor's note: James Matson is a South Carolina-based business consultant who assists farmers and co-ops. He is a former co-op development specialist with USDA Rural Development. Chris Cook is executive director with the Virginia Foundation for Agriculture, Innovation and Rural Sustainability (VA FAIRS), a rural cooperative development center based in Richmond, Va.



During the economic recession, many family farmers and producer co-ops have been able to thrive by meeting the growing demand for local food among consumers, restaurants, food retailers, institutions (such as schools and health care facilities) and farmers markets. The Internet has been a valuable marketing tool for many of them.

In Virginia and Montana, an increasing number of producers are using a software program developed by Lulus Local Food, which helps to lower the barrier to market entry for small- to medium-size producers and co-ops seeking to increase their local retail sales.

In just its third year of operation, Lulus is on track to help local food hubs ring up more than \$1 million in





sales in 2011. Lulus Internet site connects about 200 food producers and small cooperatives with more than 2,000 customer-families. It has also created the opportunity for producers

Molly Harris (facing page) created LuLus Local Food as a marketing network for small farmers and co-ops seeking to increase sales to the local food market in Virginia. Suppliers post what they have on Lulus' online listing; customers then make their selection and select a pick-up location and time. Bruce Johnson (below) updates the online inventory for Dragonfly Farms in Beaverdam, Va., as do dozens of other suppliers associated with Lulus Local Food website. USDA photos by Lance Cheung.



to participate in farm-to-school contracts, “meet and greet” marketing events with customers and to supply fresh local food to charitable organizations.

Founded by Molly Harris in late 2008, Lulus Local Food is a Richmond, Va.-based software provider for virtual food hubs that connect producers directly with retail customers. “My goal was then, and it is now, to get local food in the hands of as many people as possible,” Harris says. “We are very excited about the future of growing the local food industry and expanding this venture to help family farmers in other communities.”

Virtual food hubs can lower the costs of access to local foods for both producers and consumers by automating the sales process. Another advantage of an Internet-based food hub is the ability to carry out a transaction at any time. This means that customers can place orders whenever they wish, and that producers can update their sales items, as needed.

Simple idea morphed into an Internet platform

The “eureka moment” that prompted Harris to form Lulus Local Food came in the spring of 2008 when she met a farmer selling chickens in a restaurant parking lot. There must be a better way to connect family-owned and -operated farms with customers

searching for fresh, local food, she thought.

Harris started by assembling an e-mail list of local food suppliers in the Richmond area. She also had access to a list of customers interested in buying local food year-round. Harris compiled an inventory of what food products were available, using weekly e-mail exchanges to conduct business. The venture soon became a full-time passion for Harris.

“Molly turned up at my office with a huge box of paper, asking for help,” recalls Chris Cook, executive director of the Virginia Foundation for Agriculture, Innovation and Rural Sustainability (FAIRS), a rural cooperative development center funded by a Rural Cooperative Development Grant from USDA Rural Development. The assistance she received from FAIRS allowed Harris to incorporate, insure the business and create a business plan.

With the program continuing for a second season in the spring of 2009, Harris was able to take pre-season membership fees and apply them as capital needed for developing a software program for Fall Line Farms — an on-line, farm-to-family co-op that represents more than 75 local farms and businesses in central Virginia. With the development of the Lulus software completed in the spring of 2009, Fall Line Farms was able to expand its geographic reach to several locations

Co-ops partner with schools, health clubs, churches

Coastal Farms describes itself as “an online co-op that is a one-stop shopping program for quality local food and products ordered from the comfort of your home.” It opened a food hub in April 2010 in Hampton Roads, Va., and is marketing on the LuLus Local Food website.

Coastal Farms has formed a partnership with a local private school that is opening new doors on many levels. The

chain to establish food pick-up locations throughout the region. The food hub is offering credits to gym members and the gym says it is promoting health through exercise and eating natural food.

With 15 pick-up locations throughout the Norfolk/Hampton Roads/Isle of Wight region, hub administrator Kim Atkinson is pleased with Coastal Farms’ progress. “For small farmers, there were very few options for selling their products to the public before the online program was started last spring,” Atkinson says. “Coastal Farms has opened up a whole new venue for farmers to personalize their products, focus on quality and sell to an appreciative audience in a much broader region of southeastern Virginia.”

Due to steady sales through Lulus’ website, which now accounts for 95 percent of its annual sales, Brookview Farm in Manakin-Sabot, Va., no longer needed to operate an on-farm store. That allows the farm manager to spend more time in the fields.

Brookview Farm sells all-natural, grass-fed beef to customers via the Internet, but has also been able to sell large supplies of ground beef to the local public school system and to supply charitable organizations through the Pounds of Plenty program (see main story).

In the past two years, Lulus Local Foods has worked with several religious denominations interested in supporting the concept of “food in faith” and promoting healthy communities. Harvest dinners have triggered an interest in sourcing local food in church kitchens, where weekly dinners are often served to large groups of church members. These contacts have served both as a means to educate consumers and help to expand the market for the food hubs.



school chef is interested in promoting healthy eating habits among the children of the school and is purchasing fresh, local food through Coastal Farms.

The school is promoting the Coastal Farms program among the families of its students. A percentage of the registration fee that families of students at the school pay to join the food hub is contributed to the school scholarship fund.

Coastal Farms has also partnered with a local fitness



throughout the metropolitan Richmond region.

Fall Line Farms' success resulted in other producers, farmers markets and cooperatives asking about the possibility of setting up a food hub that would use the same Internet platform. The result was the Lulus Local Food network website.

Internet business expands season

The Center for Rural Culture (CRC) is a nonprofit based in Goochland County, Va., where it operates a thriving farmers market each summer. VA FAIRS worked with CRC and the Local Roots Food Co-op to use the Lulus online ordering system to expand its farmers market to a year-round operation. This cooperative effort has been highly successful. CRC was also able to make the farmers market manager position a permanent, rather than seasonal, job.

Lulus' network currently consists of five food hubs: four in Virginia and one in Montana. Each hub operates a

Facing page: Christy (left) and Lilah Talbott gather their order at the Fall Line Farms' pick-up point at Bon Air United Methodist Church in Richmond. Christopher Douherty (left) looks for sunflower sprouts with blemishes while hand-washing sprouts at Manakintowne Specialty Growers, a 21-acre farm in Powhatan County, Va. Jo Pendergraph's family and "team" raise specialty produce there for chefs and food markets in Richmond, Charlottesville and Williamsburg, as well as a local food hub. USDA photos by Lance Cheung.

LOCAL FOOD MARKETS

number of pick-up locations for a wide variety of local food products. Products sold include fresh fruits and vegetables, grass-fed meats and dairy products, homemade breads, pasta and prepared foods and condiments. Several new food hubs plan to join the network in the near future.

The current Lulus software is designed to connect producers with retail customers. A new version of the software is being developed with continued support from VA FAIRS.

“This new version is designed to be much more user friendly and interactive for all parties involved,” says Harris. “It will allow producers to easily sell through multiple hubs and will enable hubs to network among themselves. It will also allow for restaurant chefs, local school systems and institutions (such as hospitals and colleges) to purchase food from local farmers.”

Not operating a standard “brick and mortar operation” is a financial advantage for virtual food hubs. But this makes the website and other technical infrastructure extremely critical for these operations.

Differs from a CSA

The producers and co-ops working under the Lulus marketing umbrella offer a vast array of products for sale, usually at a price that is competitive with local retailers. It brings together a widely dispersed customer base and producers. This system allows producers to set their own prices. Even though they pay a percentage of sales as a fee to the food hub they belong to,



Kate Lainhart gathers shungiku micro greens before cutting them into “bite-sized” lengths for Manakintowne Specialty Growers. Facing page: Pigs at Keenbell Farm in Rockville, Va., are pasture-raised by third-generation farmer C.J. Isbell. The farm produces grass-fed beef, pastured pork and free-range eggs using “beyond organic standards” as part of the Fall Line Farms co-op local food hub. USDA photos by Lance Cheung.

this still allows them to retain a higher price than if they had sold through an intermediary. Lulus itself does not set membership fees or service fees; the software program allows each food hub administrator to set these fees based on local market conditions.

Most of the food hubs work on a weekly cycle, with orders opening and closing over a period of time. Food pick-up at a preferred location is scheduled on a specified day.

In most CSA (community supported agriculture) programs, customers get an

assortment of whatever crops are currently being harvested, as determined by the CSA. But in this food hub system, a customer can order a specific item from the participating network farms, much like shopping from an online catalogue. The customers only pay for what they order each week. There is no minimum or maximum order and the customer is not required to order each week.

The membership and service fee, set by each hub, covers marketing, logistics

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KEYS TO SUCCESS FOR FOOD HUBS

By James Matson, Matson Consulting
Martha Sullins, Colorado State University
Chris Cook, VA FAIRS

Editor's note: This article is extracted from a longer paper, Food Hubs: Local Food Marketing Solution? The report was produced for the Virginia Foundation for Agriculture, Innovation and Rural Sustainability (VA FAIRS) Development Center, with support from a Rural Cooperative Development Grant provided by USDA Rural Development. James Matson is a South Carolina-based business consultant. Martha Sullins is a small farm specialist with Colorado State University Extension. Chris Cook is executive director with VA FAIRS, a rural cooperative development center based in Richmond, Va.



The dramatic increase in the number of food hubs during the past few years has been supported by a number of state and federal efforts, including USDA's "Know Your Farmer, Know Your Food" initiative. USDA defines a food hub as: "a centrally located facility with a business management structure facilitating the aggregation, storage, processing, distribution and/or marketing of locally/regionally produced food products."

The target markets for these services have typically been wholesale customers — including institutions, restaurants and

grocery stores — which tend to have a hard time buying local products in the desired volumes. Through the increasing use of e-commerce and similar innovative business models, food hubs are providing a means for local producers to connect directly to retail consumers.

This article examines some of the ways food hubs can increase their odds of success, and thus continue to expand their role in promoting local foods.

Providing access to local food markets

A primary role of a food hub is to facilitate market access for agricultural producers who address market outlets (retail or wholesale) that would otherwise be less accessible or completely inaccessible due to scale or location of the food production with respect to the market outlet.

A successful food hub often will provide consumers access to a larger number of local food providers than they could access individually. Food hubs usually provide greater delivery reliability than can be obtained through purchasing from many small producers acting independently.

Food hubs function by fulfilling a variety of tasks, including:

1. Market access for local producers;
2. Information sharing on food production and marketing practices;
3. Product transportation and distribution;

4. Brokerage services;
5. Product bundling and aggregation;
6. Maintaining a consumer/producer connection;
7. Season extension for local product sales; and
8. Producer-oriented technical assistance.

Lack of financial, management resources hinder many

Like all nascent businesses, there are many potential constraints to the development and growth of food hubs. Some of these business limitations are recognized and addressed by the organizations assisting with the development of food hubs. Others are more difficult to quantify.

The primary constraints are often hard for a new organization to overcome. These may involve the lack of sufficient financial resources and a robust risk-management plan. Some constraints may take a longer time for a new entity to address, such as human resource development (as part of a staffing plan) and gaining access to local food-processing facilities.

One typical constraint is a lack of skilled management, which is often accompanied by poor recordkeeping, accounting and financial management. This is especially true in producer-based organizations, where managers may have a great deal of knowledge about production agriculture, but have less knowledge of business management. A University of Wisconsin report concluded that cooperative food hubs usually need to develop or hire skilled management.

There may also be legal or regulatory constraints on food hub development. These constraints may be imposed by local, state or federal law. The uncertainty surrounding the most recent Federal Food Safety Modernization Act, enacted Jan. 5, 2011, is likely to affect the growth of food hubs.

Roadmap for food hub development

Food hubs develop and evolve from highly localized circumstances and are dependent on several factors. Some factors that contribute to the success of food hubs include:

1. **Having a strategic plan** with clearly defined goals and a vision and mission statement to ensure that the hub's original intents are maintained (for example: fair prices for farmers or sustainable agricultural production methods).
2. **Getting all stakeholders engaged early in the process** and defining their interests and areas of expertise. Make sure there is a management or oversight team that is inclusive of the membership. The concerns of farmers and other businesses and investors must be addressed. The team should include individuals with skills in financial management, the regulatory environment, marketing and packaging, inventory management and quality control and farmer/business owner engagement. As one study noted, make sure all parties are well matched in size and scale and that they operate with similar goals and values. This limits some risk that may arise in fulfilling contracts with



Sandy Fisher, co-owner of Brookview Farm in Manakin-Sabot, Va., enjoys being a rancher that supplies beef to Fall Line Farms. Below: a reposed, but vigilant, sheepdog guards a grazing flock at Tuckahoe Plantation, in Goochland County, Va., the boyhood home of President Thomas Jefferson. It is still a working farm with cattle, sheep, chickens and rabbits that sells meat through the Fall Line Farms co-op. USDA Photos by Lance Cheung.

- vendors and buyers.
3. **Understanding the location of different direct markets and how to access them.** For instance, if the market outlet is geographically distant from the production unit, how will transportation occur and how can products be priced to cover those costs? Is backhauling feasible to generate revenue on an otherwise empty return load? Is the market one with a customer base that is less familiar with purchasing and preparing fresh foods, for example, some urban or at-risk populations?
4. **Having an education program/strategy.** An educational program may have to be an integral part of the hub development. This may include partnering with an outreach entity, such as a university extension service or a nonprofit agency. Such entities can deliver consumer

information based on what the hub provides and when the product arrives to the consumer. If local farmers and ranchers have limited experience in direct marketing but are going to be supplying products through a food hub, then they will need support and training in production planning, quality control, packaging and delivery. It may benefit the efficiency of the hub overall if other training and production improvement opportunities are offered, such as business planning or season extension techniques.

5. Learning and understanding end-user requirements.

Many end users require producers or processors to have Good Agricultural Practices (GAP) or Hazard Analysis Critical Control Point (HACCP) programs in place in order to receive product. This may necessitate additional costs in producer/business-owner training, and the development of specific protocols and quality assurance to meet the end user's requirements. Another type of producer support that may be necessary is affordable product liability insurance for individual vendors or umbrella coverage for vendors that is purchased through the hub. This is critical for hubs accessing institutional markets, such as schools or hotels. The existence of such requirements for accessing a direct market may also cause some business owners to withdraw from the supply pool.

6. Acknowledging the level and types of infrastructure necessary to operate a food hub.

These may include technical infrastructure (such as billing protocols), Internet-management systems and payment processes. Physical infrastructure is also essential (such as product warehousing or processing capability) in order to ensure increased product quality and packaging control across suppliers.

7. Determining the correct business structure. The cooperative (or quasi-cooperative) business model is well suited to food hubs. But when setting up the business, no one type of business structure is the best fit for all food hubs. Rather, the business structure must help stakeholders meet their goals for financial, marketing and production planning and growth. It appears that flexibility is the key, and the management team should be able to identify the point at which a certain business structure constrains further investment and an alternative structure (such as incorporating one business function or outsourcing distribution) is the only way the hub can maintain its market share or expand into new markets.

8. Determining the threshold scale needed for the food hub to be able to operate in an economically efficient manner. Investment capital required for supply-chain infrastructure (for vehicles, storage facilities, retail locations, etc.) can be a significant barrier to starting local aggregation and distribution businesses. There are also businesses with technical expertise in processing, distribution or transportation with which a food hub could contract to more efficiently execute some of the more

complex, or cost-prohibitive, functions of direct marketing through a hub. A key issue here is how comfortable the stakeholders are with alternative lenders or certain subcontractors. This sort of "comfort level" assessment is an important component in developing a strategic business plan for a food hub.

9. Identifying all sources of technical and financial support, including those considered less conventional.

There are emerging areas of public and private financial support for food hubs, including micro-lenders, private investors, economic development entities and nonprofit community-based organizations.

10. Managing information efficiently. It is critical that timely and accurate information flow between producers and consumers — or between producers and wholesalers. The success of a food hub depends on this, and it will help to minimize or avoid price or marketing risk, production risk and some legal risks. Information management, supported by dedicated staff and technology, impacts the hub's ability to manage orders accurately, to monitor product quality and to convey product attributes to consumers and other vendors. Information management also enables a hub to remain in compliance with certain federal, state and local food safety regulations and to maintain transparent working relationships across multiple partners in a value chain.

Conclusions

Food hubs serve as a way for a group of varied producers to find a local market for their agricultural production. They provide the thread of connectivity that keeps consumers in contact with farmers and ranchers, even when that thread is electronic, as with a virtual food hub.

Food hubs' success or failure should not be measured solely as aggregating units, or in terms of total volume of product moved, but more in terms of the places to which the product goes and the people who benefit from it. With growing demand for local or regional food products, conventional marketing channels are ill-equipped to supply local food where and how people wish to purchase it. Food hubs help producers and consumers connect in a marketing manner that retains the valuable information as to where a food item was produced and how it was grown.

Large grocery retail chains rarely have farmers themselves offering produce for sale in their stores, yet this is the essence of farmers markets and the direct marketing experience so many people desire. By bundling together the product from multiple farmers for distribution to other direct markets — such as restaurants, schools, hospitals, workplace cafeterias, and other end consumers — food hubs make it possible to supply them with fresh, local products produced by local growers in the quantities and packaging the customers require. ■



Switchgrass Plant

Pre-process logistics of handling biomass for ethanol seen as potential role for co-ops

Above: A bale of switchgrass awaits transportation to the Genera Energy cellulosic ethanol plant in Vonore, Tenn. Facing page, a technician monitors the plant processing operation, which is in the process of switching fuel from corn stover to switchgrass. All photos courtesy Genera Energy

By Dan Campbell, Editor
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For Brad and Kim Black, the decision three years ago to plant 290 acres of switchgrass as a feedstock for ethanol was based both on a desire to diversify their grain, soybean and beef cattle farm, and “to hopefully help get the nation off its dependence on foreign oil.” After a difficult first year with the crop (in part due to a drought), the next two years were much smoother. They say their switchgrass now requires less time and effort than the other crops they grow on the farm, just three miles from a new demonstration-scale cellulosic ethanol plant in Vonore, Tenn.

Likewise, Jim Thompson and his son, Jamie, were looking for a way to diversify their Monroe County, Tenn., dairy farm and hopefully to become “pioneers in the new, green-energy economy.” They, too, have found getting started with switchgrass to “be a challenge, to say the least,” according to Jim. But they are optimistic that it will get easier as they gain experience with the new crop.

Dillon VanZant of Athens, Tenn., says he likes the fact



Switches On

that after the first year or so, he has been able to “manage the crop from a distance,” which is important, because he planted it 14 miles away from his home.

These growers and several others share their experiences growing switchgrass in videos posted on the website of Genera Energy LLC (www.generaenergy.net), which is operating a prototype cellulosic ethanol plant in Vonore, in partnership with DuPont Dansico Cellulosic Ethanol (DDCE). In all, 61 farmers have planted more than 5,100 acres of Alamo switchgrass (including 1,000 acres of improved varieties) under contract to Genera Energy, which was established in 2008 by the University of Tennessee Research Foundation. Its goal is to help commercialize biofuel technology and support the development of a sustainable biomass industry.

Growers are finding that switchgrass will grow on marginal land and can be planted and harvested using conventional forage crop equipment (no-till seed drills, round hay balers, etc.). It is harvested once each year, after the first killing frost (typically in early November in East Tennessee). The crop helps to build up the carbon content of soil, pushing carbon out beyond the roots and into the surrounding soil.

The University of Tennessee has switchgrass test plots that are now 25 years old, and the yields have been just as good in the 25th year as in the third year (when it hits full production).

Major role seen for Southeast

The Renewable Fuel Standard 2 (RFS2) calls for the production of 16 billion gallons of cellulosic biofuel (half of the nation’s total biofuel supply) by 2022. USDA’s regional “roadmap” plan for meeting that mandate envisions up to 50 percent of the cellulosic fuel being produced in the Southeast, due to its robust growing season and potential for high per-acre tonnage.

Today, a mature stand of switchgrass should produce about eight dry tons per acre in eastern Tennessee. That 5,100 acres being grown in East Tennessee may sound like a lot of cellulose. But consider this: a commercial-scale, 50-million-gallon-per-year processing plant will require up to 100,000 acres of the crop, annually producing more than 600,000 tons of biomass.

To drive that point home, Dr. Kelly Tiller, Genera Energy president and CEO, likes to show an aerial photo of a



Rather than being a scale up of a laboratory, the Genera Energy cellulosic ethanol plant is more like a “scale down of a full commercial plant design,” Dr. Kelly Tiller says.

football field-size plot covered with rows of stacked, round bales of switchgrass.

“That’s 2,400 bales of switchgrass, or about what a commercial-scale plant would use in just 24 hours,” Tiller said during a presentation she made in February as part of a biomass energy panel at USDA’s annual Ag Outlook Forum.

This then, is one of the primary challenges facing biomass energy as it moves toward commercialization: the need to work out the logistics of handling, storing and transporting all that feedstock to ethanol plants. “It is critical that we look at all of this as an integrated system, not as individual pieces of something bigger,” Tiller says.

The switchgrass being grown for this project is all located within a 50-mile radius of the plant, referred to in the industry as a “biorefinery.”

Tiller calls the switchgrass production effort to date “a tremendous success. Many farmers have come back and asked to grow more acres.” The main selling points for farmers include a high yield potential with low inputs and that the crop can be grown on marginal land. “Some of the land was not even in agricultural production prior to this project.”

Growers have been earning about \$450 per acre, per year on a three-year contract. Genera Energy provides them with seed and technical expertise. Tiller notes that the contracts offered for this first-of-its-kind, large-scale demonstration project may not correlate to the commercial market that follows.

Opportunity for co-ops

One way of handling so much biomass would be to create several regional aggregation facilities for each large cellulosic

ethanol plant. Some supply chain steps — such as storage, size reduction (e.g., grinding, hammer milling), separation, densification (e.g., compaction, pelletization) and other pre-processing — could occur at them, Tiller says. These intermediary handling stations, in turn, would feed into the main ethanol plant, thus reducing the need to haul the bulky form of the dry crop to only 5 to 10 miles, rather than up to 50 miles.

This is where Tiller sees a great opportunity for a farmers’ cooperative.

“This would be a very good fit for a new-generation or other value-added farmers cooperative,” she says. Indeed, the Tennessee Biomass Supply Cooperative (TBSC) has been formed as the framework for a federated co-op that would “coordinate production and processing operations, optimize economic returns to rural Tennessee, capture favorable antitrust and tax treatment and meet the growth demands of Tennessee’s new biomass industry.” The new co-op would allow individual farmers to benefit from shared resources, economies of scale and better-negotiated prices, she adds.

The TBSC (statewide) cooperative and its regional (member) cooperatives are being organized under the provisions of the Tennessee Processing Cooperative Law (TCA Section 43-38-101) and would have limited, or “closed,” membership, consistent with demand for contract production.

Cost to build pre-processing/compaction depots could run from \$7 million to \$15 million, Tiller estimates, which would be more in the range of what growers could typically raise, vs. the \$200 million to \$400 million cost to build a commercial-scale cellulosic biorefinery.

The new ethanol plant in Vonore is adjacent to a new research and development (R&D) campus now under construction: Tennessee's Biomass Innovation Park, which should be in operation by the end of this summer. Tiller refers to it as a "world class R&D campus" that will work with multiple feedstocks to identify the ways and means to integrate the entire biomass supply chain, including:

- Harvesting, handling, storage, densification and logistics;
- Pre-processing;
- High-throughput screening and analysis;
- Agronomics, plant genetics and production;
- Intermediate processing and conversion.

The park is funded primarily by the state of Tennessee as one part of the comprehensive and integrated \$70.5 million Tennessee Biofuels Initiative. Genera received a \$5 million grant from the U.S. Department of Energy that is funding a bulk-handling demonstration facility in the park. Lessons learned from Tennessee's Biomass Innovation Park could become a template for other regional biomass depots.

The biorefinery, built and operated in partnership with DuPont Danisco Cellulosic Ethanol, began operating about 18 months ago, initially running on corn cobs. It then transitioned to corn stover (the stalks, stems and leaves), and is in the process of moving to switchgrass.

Tiller calls the biorefinery in Vonore a "large scale research and development facility. Rather than being a scale-up of a laboratory, it is more like a scale-down of a full commercial plant design," she says, adding that "there are about as many input and output points as there would be in a commercial-scale facility." It can produce up to 250,000 gallons per year.

At least initially, biorefineries will require long-term contracts for biomass to supply them. Thus, grower contracts for the industry will need to be long-term — perhaps up to 20 years — to lock in the supply needed, she says. Since it takes several years to bring the crop into full production, farmers will also want assurance of the market for their crop before committing to grow it. "The number one thing you need before planting switchgrass is a contract with a buyer," farmer Brad Black emphasizes.

New, improved varieties of switchgrass are being developed. Tiller says she recently read about a new variety that could yield 30 percent more ethanol than existing varieties. "That's

huge — game changing," she stresses.

The lack of a long-term bio-energy policy for the nation represents a big challenge to those promoting investments in biomass, she says. Still, with oil imports driving up the nation's deficit and hurting the economy, the biomass industry must maintain momentum, she says. "There has been a lot of buzz about biomass, but it ebbs and flows."

Farmers, she notes, have a long memory when it comes to recalling something they got burned on.

"Many farmers not only remember something bad that happened to them, but that happened to their fathers, grandfathers and great grandfathers. We won't have a lot of recovery time from any kind of black eye — you basically get one chance. We must maintain and sustain momentum, or I fear it will set us back to where we started from, or even further."

But seeing is believing, and Tiller believes the cellulosic ethanol now flowing from this Tennessee biorefinery is going to create a lot of believers. ■



Jim Thompson and son Jamie say they planted switchgrass both to diversify their Tennessee dairy farm and to "be pioneers in the new green-energy economy." Below: standard haying equipment can be used to harvest and bale switchgrass.

USDA program helps offset cost of flex-fuel pump installation



Photo courtesy Gilbarco Veeder-Root

Farmer cooperatives and grower-owned LLCs not only help produce ethanol, many of them also operate retail fuel service stations that deliver ethanol to consumers. The cost of purchasing and installing flex-fuel pumps has been an obstacle to their spread, but now operators will have access to grants and loan guarantees through USDA Rural Development that can help speed the rate of installation.

Nearly all retail gasoline stations can dispense an E10 fuel blend, which contains 10 percent ethanol and 90 percent gasoline. Flexible fuel pumps are specifically designed to

dispense E85, an ethanol blend that contains 85 percent ethanol and 15 percent gasoline. In addition, they may also dispense “mid-level blends,” including E15 (15 percent ethanol) and E30 (30 percent ethanol).

Unlike conventional gasoline engines, the engines in flexible fuel vehicles (FFVs) are specifically designed to use a wide range of ethanol/gasoline blends, up to E85. Currently, there are nearly 10 million FFVs on the road in the United States, with more than 1 million being added every year.

But an estimated 90 percent of the nation’s FFVs do not have ready access to the higher blends of ethanol. Although

these vehicles can be identified by a logo on the vehicle or by the gas cap, an equally high percentage of FFV drivers are unaware of their vehicles' unique "flexible fuel" feature.

Why E85 and mid-level blends?

Our country has established a strategic national security goal of producing 36 billion gallons of biofuel per year by 2022. "To meet this goal, it is imperative that fuels with ethanol content higher than E10 be made available for use in FFVs," says Dallas Tonsager, Under Secretary for USDA Rural Development. The majority of vehicles in the United States currently use E10 blends, which are about to reach market saturation (referred to as the E10 blend wall).

In 2010, 13.3 billion gallons of ethanol were produced, roughly 10 percent of the amount of gasoline sold in the United States. To break through the E10 blend wall, higher blends must be made available to give consumers a choice at the pump. These higher blends will help to substantially reduce both fine particulate and greenhouse gas emissions, reduce our dependency on imported oil, provide greater sales opportunities for gasoline station retailers and consume the billions of gallons of ethanol that are produced each year.

"These higher ethanol blends will also allow the biofuel industry to continue to grow and to expand to new areas of the country with new, non-corn starch feedstock and to create 1 million jobs across rural America," Tonsager notes. "Cooperatives that operate retail fuel stations can play a big role in helping to meet this national security goal and to capture the economic development impacts of producing 36 billion gallons of biofuel per year."

Eligibility overview

An applicant is generally eligible for USDA's flexible fuel pump program if the applicant:

- Meets the definition of a rural small business or an agricultural producer;
- Is current on all federal debts;
- Is not debarred for receiving federal assistance; and
- Has made satisfactory progress on any prior Rural Energy for America Program grants/guaranteed loans.

A project is generally eligible if it:

- Is for the installation of a retail flexible fuel pump;
- Is located in a rural area;
- Uses a commercially available, replicable technology;
- Has technical merit;
- Is owned by the applicant, who must control the revenues and expenses of the project and must have a place of business in a state;
- Has satisfactory sources of revenue for the life of the project; and
- Has its site controlled by the applicant for the financing term of any associated federal loan or loan guarantee.

If the flexible fuel pump makes available more than one type of blended liquid transportation fuel, at least one of the blends must exceed the highest requirement, which may be a

state or federal level, for the percentage volume for a renewable fuel.

Financial assistance

Both grants and loan guarantees are available. Grant awards are limited to no more than 25 percent of total eligible project costs, with a minimum grant of \$2,500 and a maximum grant of \$500,000. Applicants must secure the remaining funds. Loan guarantees of up to 75 percent of total eligible project costs are also available.

Eligible project costs include, but are not limited to:

- Post-application purchase/installation of equipment, including underground storage tanks;
- Post-application construction or improvements;
- Energy audits/assessments;
- Permit and license fees;
- Professional service fees, except application preparation;
- Feasibility studies/technical reports/business plans; and
- Retrofitting.

Application overview

An application and a technical report must be submitted. Applicants can apply on a per-station basis or across multiple locations on a single application. The technical report must cover:

- Qualifications of the project team;
- Agreements, permits, certifications;
- Resource assessment;
- Design and engineering;
- Project development schedule and economic assessment;
- Equipment procurement/installation;
- Operations and maintenance; and
- Dismantling/disposal of components.

For Fiscal Year 2011, applications must be submitted by June 15, 2011. ■

Additional resources:

- Clean Fuels Foundation's National FlexFuel Vehicle Awareness Campaign: Infrastructure Development Guide;
- Growth Energy (website designed for ethanol retailers);
- American Coalition for Ethanol & Renewable Fuels Association;
- Blend Your Own Ethanol (gasoline retailer education campaign);
- Protec (full service install-fuel);
- Dresser Wayne/Gibarco (pump manufacturers);
- U.S. Department of Energy (DOE)/National Renewable Energy Lab Alternative Fuels and Advanced Vehicle Data Center; and
- DOE's Clean Cities Program.

To reach any USDA Rural Development State office, call 1-800-670-6553, or visit: www.rurdev.usda.gov.

CO-OPS FOR CAREGIVERS



Homecare co-ops viewed as one answer to long-term care needs in rural America

By Margaret Bau

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Editor's note: Margaret Bau is a co-op specialist with USDA Rural Development in Wisconsin.



The state of efforts to organize more homecare cooperatives was the focus of a day-long forum at the National Press Club in Washington, D.C., in March, sponsored by the Cooperative Development Foundation. Homecare worker co-ops can play a significant role in helping to keep more seniors and

All photos courtesy Cooperative Care

people with disabilities in their homes, rather than in nursing homes or institutions. Studies show that clients usually remain healthier and are happier when they can stay in their homes.

But because pay and benefits are so poor for homecare workers, there is a tremendous rate of worker turnover and it can be difficult to find qualified workers. By organizing in worker-owned co-ops, homecare workers may increase their pay and benefits while helping ensure that patients have the reliable, qualified help they need to remain in their homes longer.

While there have been some notable homecare co-op success stories, speakers at the forum noted that major obstacles must be overcome if this movement is to expand significantly.

Judy Canales, deputy administrator for the Rural Business-Cooperative Service (part of USDA Rural

this work. The business model is built upon low investment in training, high labor force turnover and low expectations of quality.

Turnover rates at home health agencies average up to 75 percent annually. This is devastating to the quality of life for a frail elder or an individual with a disability who depends upon a stable relationship with the people providing their most intimate care.

Worker co-ops in long-term care

There are a handful of worker cooperatives in the U.S. homecare industry. The first was Cooperative Homecare Associates (CHCA), which started as a welfare-to-work experiment in the mid-1980s. It sought to train African-American, Latin-American and new-immigrant women to work in homecare in the South Bronx, N.Y. Project organizers were dismayed by the

“I used to be a mouse in a corner. But now I am a mouse that roars.”

Development) started the meeting by saying the aging of America and the implications for the nation’s healthcare system is a major concern for USDA Rural Development, since its goal is to help raise rural living standards. The rural population is aging even faster than the nation as a whole, making it essential to identify creative alternatives to provide services for seniors, she added. Homecare cooperatives offer such an alternative.

Reality of direct-care work force

Leonila Vega, executive director of the caregiver advocacy group Direct Care Alliance, noted that there are 3 million direct-homecare workers in the United States; another 1 million will be needed in the coming 10 years. Direct-care workers are the eyes and ears of the long-term care system.

Elders and people with disabilities spend more time with direct-care workers than they do with their physicians, social workers or nurses. Yet this essential workforce earns a median wage of only \$9.46 per hour, with most workers unable to piece together a full work week. More than 37 percent of workers in homecare lack health insurance. Of all professions, direct-care workers have the second-highest rates for depression and the fifth-highest incidence of back injuries.

Since the 1970s, the long-term care industry counted on an endless supply of baby boomer, low-income women entering the workforce with a willingness to do

work conditions these newly trained women faced (including minimal wages, no benefits, injuries, part-time work and low status).

So they created a worker co-op to address fundamental issues within the homecare industry. In theory, worker cooperatives should maximize wages, increase benefits, provide a voice in decisionmaking and increase worker status through business ownership.

Several other homecare worker co-ops were organized in Northeastern cities in the early 1990s. But sudden regulatory changes Congress made to Medicare and Medicaid in 1996 resulted in the closure of all but two of these worker co-ops.

Inspired by CHCA and responding to local conditions, Cooperative Care opened in 2001 in Wautoma, Wis., as the country’s first homecare worker cooperative in a rural area. A handful of similar worker co-ops were explored or organized in rural Wisconsin, Hawaii, Washington and Oregon (thanks in part to one-time seed money provided by USDA Rural Development in 2005). CHCA also inspired I Am Unique, a worker co-op of nurses providing highly specialized ventilator and tracheotomy care for clients in Raleigh, N.C.

This handful of worker co-ops has provided modest increases in wages and a range of benefits for their member-owners. Several of the worker co-ops provide initial and ongoing training. The more established co-ops offer peer mentoring and opportunities for

advancement within management. Turnover rates at the homecare co-ops average around 20 percent annually.

Success story: What a worker co-op can do

More striking are the opportunities co-ops create for leadership development. Tracy Dudzinski, a certified nursing assistant and board president of the 10-year-old Cooperative Care, in Wisconsin, told how her co-op was organized and the difference it has made in the lives of both the owner-members and the clients.

When Dudzinski started with Cooperative Care, she didn't even know what a co-op was. But she soon found herself serving on co-op committees and was elected to the board. She became board president, then moved into leadership positions at the state level, being elected president of the newly formed Wisconsin Direct Care Alliance. At the national level, she is serving as president of the Direct Care Alliance.

Dudzinski "found her voice" during a one-week leadership training course sponsored by Direct Care Alliance. "I used to be a mouse in a corner," Dudzinski said. "But now I am a mouse that roars." She noted that operating a cooperative is hard work and can sometimes be frustrating.

"But it is worth all the hard work and frustration."

Why so little progress?

Given the potential that worker cooperatives can offer member-owners in enhancing wages and benefits, professional development, a voice in decision making and business ownership, why haven't the gains to caregivers in worker co-ops been more dramatic? Robyn Stone, a noted, long-term care researcher, has asked: "Why aren't there hundreds of these homecare worker co-ops across the country? Why aren't there thousands of Tracys?"

The answers are complex. The demand for long-term care will grow exponentially as baby boomers age.

Meanwhile, the workforce supply of direct-care workers will stagnate if low pay and low status remain the industry norm.

Cooperative impact on long-term

1970s-era labor model that assumes a low level of professionalism, thereby requiring micromanagement of service delivery.

Whether employed by a for-profit,



There are 3 million direct-homecare providers in the United States, and another 1 million will be needed in the next 10 years.

care has remained modest due to the structure and funding mechanisms of the industry. Rather than supporting individuals to live life to the fullest (more of a hospice approach), people with chronic conditions and life-long disabilities are expected to "get better" (a medical intervention approach). The prevailing funding mechanism for medical care in the United States is fee-for-service — but this is an ill fit for helping people manage ongoing conditions.

The majority of people who require long-term care are not covered by private insurance and cannot afford to pay for services "out-of-pocket" for an extended period of time. Most long-term care is paid for via Medicaid and Medicare. Government-funded reimbursement rates were based upon what some have termed an "exploitive,"

nonprofit or worker co-op agency, wages have been stymied by the dominant Medicare/Medicaid reimbursement rates. Public funding for the current long-term care system seems unlikely to increase during the coming decade, given the budget-cutting environment now prevalent at the state and federal level.

Joy Johnson Wilson, health policy director for the National Conference of State Legislatures, told conference attendees that she was "the wet blanket" for co-op homecare initiatives. The fiscal reality is that most state legislators are overwhelmingly concerned about budget shortfalls, she noted. In the current economic climate, about the best that can be hoped for is proposing homecare pilot projects and demonstrating outcomes that are cost neutral, she said.

Stone is pessimistic about any advances occurring in the public-pay market during the next 10 years (whether Medicare, Medicaid or state funding). Innovation in homecare agencies (and improving labor force conditions) will have to come from private market innovations, she said.

Organizing homecare worker co-ops

Diane Gasaway, executive director of the Northwest Cooperative Development Center, outlined the steps to organizing a cooperative — steps that mirrored the experience shared by Cooperative Care. The Northwest Center has been the most active of the co-op development centers across the country in exploring and organizing homecare worker co-ops.

professional and board member who is “the glue” that keeps Paradise Homecare Cooperative on the big island of Hawaii operational, shared her passion and insights into what it takes to empower people to promote long-term care on the “non-tourist side of the island.”

Hawaii is home to the nation’s longest lived population. But caregivers face tremendous challenges in transportation (most workers need to take a 1.5-hour public bus trip to the “tourist side” of the island to serve their clients). Cell phone coverage is spotty, and most workers can’t afford them anyway, she said.

Schorr said she is very worried about new Medicaid regulations that will negatively impact both caregivers and care recipients (such as not reimbursing

homecare worker co-op.

Caregivers have big hearts, but they don’t necessarily have the business acumen, professional networks or long-range planning discipline needed to respond to market fluctuations. Involving consumers of services, their families, existing health care networks and disability advocacy groups as co-owners of a cooperative business might be a way to overcome some of the limitations of a pure worker-owned co-op and the current climate of the public-pay market.

Parallel examples of multi-stakeholder co-ops are popping up across the country in rebuilding local food systems. Italy and Quebec have a history of multi-stakeholder co-ops which the United States can learn from — including the formation since 1996

“Forward-thinking institutional partners should share a common trait: a desire to reduce overall health costs and to help patients live life to the fullest.”



Gasaway said organizing homecare co-ops in rural Oregon is virtually impossible, due to a law mandating administrative offices be maintained every 50 miles within an industry.

In Washington and Hawaii, Medicare regulations mandate that an agency must be in existence for at least a year before that agency can serve Medicare recipients. Reimbursement rates for Medicaid and Medicare are extremely low, making it difficult for an agency to pay workers living wages, she said.

A new rural homecare co-op

Kimberley Schorr, a health

caregivers for running errands for clients, or authorizing so few care hours of service that it makes care cost prohibitive).

Multi-stakeholder co-ops as an option

During the afternoon panel, this writer spoke about the success of Cooperative Care, but also of a “spectacular failure” with a second

of more than 100 multi-stakeholder co-ops that provide homecare in Quebec.

Possible health network applications

Day surgery is increasingly common. However, many patients need several days or weeks of help bathing, grooming and housekeeping when returning home for recovery. A forward-thinking hospital administrator should welcome the opportunity to partner with homecare workers to ensure a high level of quality care — and thereby help to avoid infection, injury or re-admittance to the hospital post surgery.

The same situation exists for rehabilitation centers. Stroke and paralysis victims may spend months in rehabilitation centers. Upon release

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Tanzanian dairy farmers and co-ops benefit from USDA, Land O' Lakes help

By Jennifer Hyman

Editor's note: Jennifer Hyman is communications manager for Land O'Lakes International Development.

A new USDA-funded dairy development program is expected to play a catalytic role in improving the quality of life for smallholder farmers across northern Tanzania.

Land O'Lakes International Development's three-year Tanzania

Dairy Development Program (TDDP) will boost incomes and strengthen food security for nearly 18,000 farmers and agricultural input and service providers. It will also indirectly assist an additional 87,000 family members and raise awareness about milk's nutritional value among more than 1.5 million consumers.

Tanzania has Africa's third-largest cattle herd, and nearly two-thirds of the rural poor already own livestock. This means there is great potential for poverty alleviation through dairy development. However, limited

production and inefficiencies along the value chain prevent farmers from enjoying the incomes and improved food security that dairying provides in neighboring countries, such as Kenya.

Program launch

"Despite the fact that small-scale dairying is an important agricultural activity for many poor families, dairy cooperatives are still very few," John Mngodo, Tanzania's director of national food security, explained at the program launch in January. Only 142 of the country's 9,501 registered cooperatives

The purchase of a 1,400-liter milk cooling tank has enabled co-op members to begin milking twice daily and to expand the co-op to more than 300 members. Photo by Jennifer Hyman, courtesy Land O' Lakes

focus on livestock or dairy.

"This attests to the significance of this new program, which aims to create and strengthen dairy cooperatives at the grassroots," Mngodo added.

Rachel Trego, of USDA's Foreign Agricultural Service, also spoke at the program launch, saying TDDP shows the commitment of the American people to helping ensure lasting food security for the people of Tanzania. Quoting Agriculture Secretary Tom Vilsack, Trego said, "This food assistance program furthers the Obama administration's efforts to introduce and expand free enterprise in the agricultural sector of developing countries and emerging democracies around the world."

Trego added that, within the last year, USDA has provided more than \$145 million in international assistance under the Food for Progress Program (FFPr), benefiting more than 3.4 million people and providing access to new opportunities for farmers and rural communities worldwide. TDDP is funded through a FFPr award.

The TDDP is also building upon Land O'Lakes' previous U.S. Agency for International Development (USAID)-funded dairy development activities in Tanzania, from 1999 through 2010. These relatively small-scale efforts focused on forming dairy cooperatives, improving processor capacity and raising consumer awareness.

While the TDDP will continue to strengthen the country's dairy sector, particularly in the "northern corridor" areas of Tanga, Kilimanjaro, Arusha and Mara, one of its greatest areas of emphasis will be on training smallholder farmers and cooperative members how to improve their milk production and collection efforts. The program will also improve farmers'

access to feed, breeding and veterinary services, and provide training and technical assistance to milk processors.

Co-op enhances economic power of women

Along the foothills of Mt. Kilimanjaro, cultural norms have long dictated that men's livelihoods center on coffee farming while women earn their money through dairy. Given the challenges many smallholder women farmers face in earning viable incomes independently, a group of 98 women decided to join forces in 1997 to form the Marukeni Women's Cooperative.

Establishing the cooperative was an important first step, but the women still faced serious constraints to success. Lacking milk-collection infrastructure and a cooling tank, they could only collect milk once a day. They would milk at midnight, then trek on foot to the market in order to sell their milk before 6 a.m. This left them exhausted and unable to do much else the rest of the day.

The women's limited knowledge of animal care, feeding, milk handling and hygiene also severely impeded their production potential. Worst of all, their cooperative was poorly managed, with some of Marukeni's leaders misappropriating the women's hard-earned funds.

In 2001, under an earlier USAID-funded program, Land O'Lakes began providing Marukeni's members with training on cooperative governance, farm production, milk handling and financial management. This led to the removal of its corrupt leaders.

Land O'Lakes also facilitated the purchase of a new, 1,400-liter milk-cooling tank, which enabled them to begin milking twice a day and grow the cooperative to over 300 members. It boosted milk collection volumes from

under 250 to more than 750 liters a day and greatly expanded members' profits. With the additional money, the women were able to purchase the building that houses their cooling tank and serves as the cooperative's meeting point.

Children also benefit

"Before we received help from Land O'Lakes, I didn't have time to take my children to school, build a proper house or have enough food to properly feed my five children," explained Aquierdo Dorsey. Like about half of Marukeni's members, she is a widow. "But now I've been able to help get my children through high school, and even have time to spend at home with my grandchildren."

Local agricultural official Umago Chifurai explained that the cooperative's growth has also played a formative role in improving gender parity and promoting leadership roles for women in the community, particularly now that men are struggling to make ends meet through coffee farming.

"Men are now moving away from the coffee culture," he says. "They are helping their wives to plant grass for the cattle, women are more respected in society and they also have greater economic power."

While Marukeni Women's Cooperative has made tremendous inroads since it first received Land O'Lakes assistance, the members are extremely excited about the help they will receive through the USDA-funded Tanzania Dairy Development Program. They are looking forward to receiving additional training on animal feeding, health and medicine, and improving breeding services.

"We are also hoping to learn how to process independently, or get connected to a processor that will buy our milk," explained co-op chair Stella Kileo. "We need to overcome transport issues and ensure we can still profit when there is a glut of milk during the rainy season."

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Full gamut of merger issues arose during consolidation of A.I. co-ops in Northeast



BREEDING A MERGER



Farmer cooperative mergers are usually driven when producer-members push their organizations to

become more efficient and better positioned within their industries, a key result being greater economic and service benefits for members. Many hundreds of mergers during the past 25 years or so have greatly changed the face of the nation's farmer co-op sector, which is now characterized by fewer, larger co-ops.

Even so, mergers are often a difficult strategy to employ. Directors and members wrestle with consolidation, which can trigger strong emotions tied to the perceived loss of autonomy and local control. Other factors — such as the need to resolve equity and debt issues, the logistics of facilities that might be moved or closed, and the lack of trust between former competitors —

can represent serious obstacles to a merger, even when financial projections strongly support consolidation.

To offer more perspective on these issues, the following conversation presents the experience of a former director of an artificial breeding cooperative with the consolidation process. In the 1950s and 1960s, Jeremiah Wadsworth was instrumental in merging artificial insemination (A.I.) cooperatives in the New England states and New York. Wadsworth worked with a number of co-op directors, managers, cooperative extension agents and other professionals to create the New England Selective Breeding Association (NESBA) in 1959 from the merger of four smaller breeding co-ops. Wadsworth was then involved in further consolidation talks that led to the formation of the Eastern Artificial Insemination Cooperative (Eastern AI) in 1966.

He offered the following insights during a conversation with his son, James Wadsworth, an agricultural economist with USDA Cooperative Programs.

Q. When did you first become involved with artificial insemination cooperatives?

Jeremiah Wadsworth: “In 1952, I accompanied my uncle to a South Hartford County Animal Breeding Association (SHCABA) meeting in Rocky Hill, Conn., shortly after we had started using artificial insemination on the farm.

“We saw an immediate improvement in our cattle and milk production. After attending that meeting and listening to the officers, I became more interested in the cooperative and was later elected to the board of directors of South Hartford County, a local district of the statewide co-op: Connecticut Artificial



Artificial insemination (A.I.) technology has evolved greatly over the past 60 years, helping to revolutionize livestock breeding practices, as seen in these historic and modern pictures. Herd genetics and farmer safety have both improved, thanks to A.I. technology. Photos courtesy GENEX Cooperative Inc.

Breeding Association (CABA). Each local district had directors on the CABA board, which I was elected to in 1953. I eventually became secretary of the CABA board and, in 1962, was elected president.”

Q. Can you describe the events that led to the formation of NESBA?

“There were several efforts to develop a single New England bull-stud cooperative from the cooperative organizations serving the New England states. Those efforts were unsuccessful until 1957, when merger talks began again with more genuine interest than before. The cooperatives included in the talks were CABA, Massachusetts Selective Breeding Association (MSBA), Maine Breeding Association (MBA), New Hampshire-Vermont Breeding Association (NHVTBA), Rhode Island Breeders Association (RIBA) and Central Vermont Breeding Association

(CVBA).

“The CABA board of directors took a strong, positive approach to the talks, even endorsing the NHVTBA headquarters in Concord, N.H., as the likely location for the headquarters of the new co-op. However, NHVTBA and MBA decided to back out of the merger discussions, which was disappointing. But the remaining four cooperatives — CABA, MSBA, CVBA and RIBA — acted quickly to approve merger, and formed New England Selective Breeding Association (NESBA).

“The decision was made for the new cooperative to be headquartered in Woodbridge, Conn., with the bull studs to be at Woodbridge and at the MSBA site in Massachusetts. The CABA board favored a complete consolidation, with the elimination of state and local service units. But the final decision was to consolidate only the production

facilities. So the resulting cooperative had a federated structure [a co-op of cooperatives]. CABA and MSBA were each given three members on NESBA’s nine-member board of directors; CVBA was given two board slots and RIBA was given one.”

Q. What process did you go through and what issues were raised during the merger talks?

“The CABA board worked to inform the membership of the proposed merger by attending all the county association annual meetings. Some farmers questioned the loss of county influence and control that would occur in a merger. They saw a merger as diluting the membership. But overall, it was an easy sell for CABA members once they heard of the efficiencies and benefits that would be gained — and because the new cooperative’s headquarters was going to be in Woodbridge.

“A strong reason for contemplating a merger was the feeling that significant efficiencies would be gained through a single, centralized management. An even stronger reason was the continuing problem with the distribution of semen and the limited number of good bulls in use. Access to a greater number of bulls from more herds over an expanded geographic area would allow for better genetics (less recessive gene issues) for all farmers. A.I. had greatly improved herds (with higher production, better cows, etc.) and farmers wanted the improvements to continue.

Q. What were some of the benefits of the new NESBA?

Farmers were excited that NESBA was helping to improve conception rates, extending longevity in their herds from the better cows, raising

production through the use of good bulls, and providing access to well-trained and more experienced technicians. Other major benefits were a low, \$6 breeding fee (made possible by better economies of scale) and having sire committees operating within a wider geographic area with more herds to choose from. The committees' job was to find top cows for contracting with farmer-members for future bulls that could provide improved genetics.

"It was during the late 1950s and early 1960s that the young sire programs were begun at NYABC and NESBA. This involved taking the top bulls in stud and breeding them to the top 1 percent of production-type cows to produce future sires. To do this, the sire committees were busy traveling to top herds. Having more herds to choose top cows from was a big benefit.

"Another great benefit of the cooperative was the joint help received from three state extension dairymen — Stanley Gaunt from Massachusetts, Bob Benson from Connecticut and John Atwood from Rhode Island. NESBA also benefited from information from the herdsmen and professors from respective land grant institutions. Through the manager of the cooperative (Paul Heller), we had a good relationship with the University of Connecticut, which was conducting research on A.I. and its practices. Dr. Pickett was already conducting semen research (to improve semen and raise conception rates) and developing A.I. methods (moving from ampule to straw) at the University of Connecticut. But the cooperative was able to tap into the other universities as well, developing New England-wide support for applied A.I. research.

"It was a fantastic time. The NESBA annual meetings were an exhilarating forum where members made friends shared experiences and gained confidence in their breeding programs, due to the success of the cooperative."

Q. What precipitated the merger that ultimately led to the formation of Eastern AI?

"Members were happy with NESBA and the progress being made with use of artificial insemination. But the board and management started wondering if we shouldn't be thinking of further mergers to push ahead for reduced costs and greater farmer benefits.

"We had reached the limits on high-use sires. In order to limit use to cows from which heifer calves would be raised, we increased the cost of semen on the high-end bulls while leaving other sires the same. We also felt it necessary to strive toward a goal of maintaining a reasonable breeding fee (\$6); we didn't want to see that increase.

"In the fall of 1963, the NESBA board initiated discussions with NHVTBA and MBA to seek ways of working together to reduce costs. MBA and NESBA worked out an agreement for the joint purchasing and sampling of Holstein bulls. So, NESBA and MBA had developed a good working relationship; and NHVTBA — after two straight poor years financially — started looking at merger differently.

"But first there was a meeting held in April 1965 in Allentown, Pa., where a merger of the whole Northeast A.I. industry was seriously considered. We (NESBA, along with NHVTBA, MBA and NYABC) had a great meeting with directors from cooperatives in Pennsylvania, Maryland and New Jersey. Most of us had met at National Association of Animal Breeders meetings over the years, so we were acquainted with the larger organizations' feelings that they were somewhat superior to the smaller ones, but that did not bother us. At the meeting, we did not make significant progress, although representatives from the cooperatives in Pennsylvania and New Jersey said they would discuss the possibilities with their boards. It turned out to be too much, too soon."

Q. What happened next? What issues were raised and what outside parties were involved in facilitation?

"A few months after the Pennsylvania meeting, the state extension dairymen suggested that the

New England cooperatives and NYABC seriously look at getting together. Thus, NYABC, NESBA, MBA and NHVTBA proceeded with talks. To help with this, we involved Elmer Towne (former Vermont commissioner of agriculture) to facilitate the meetings. Officials from the Bank for Cooperatives also helped a great deal; they attended all the meetings.

"NYABC wanted sire committee chairmen to be on the board of directors and also wanted to employ an executive committee. NESBA didn't want an executive committee, but rather wanted an efficiently sized board making decisions together with management — not to simply be told what to do by an executive committee.

"That issue almost destroyed the merger. But some of the NYABC directors supported the New Englanders' premise, and we ended up voting for a 12-director board, where eight would come from NYABC and four would come from New England (one from NESBA, one from MBA and two from NHVTBA).

"As president of NESBA, I went on the circuit to sell the merger. The members really turned out at the meetings. We were determined to have a membership vote after completing full discussions and questioning. Extension dairyman Dr. Robert Benson, from the University of Connecticut, was a valuable asset in the process. He provided an objective viewpoint of the advantages and disadvantages of the merger."

"In February 1965, all four cooperatives voted to proceed with a complete merger. For NESBA, the full member vote was unanimous, except for one dairyman in Tolland County (CT) who accused the NESBA board of destroying the cooperative and confiscating the equity of members. His was the lone vote against the merger in all 12 cooperative districts.

"Indeed, equity money was an issue. However, we were able to sell NESBA's land and buildings in Woodbridge for \$330,000. After providing \$100,000 (in addition to our bulls and equipment)

for the members' equity stake in the newly formed Eastern AI, NESBA's 8,000 members received \$230,000 back in equity. That was calculated on the basis of \$1 for every cow they had bred through the cooperatives (at the \$6 breeding fee)."

Q. Can you describe some of the thoughts and feelings you had toward this newly formed cooperative?

"It was exciting to see the development of cooperation with the merging partners. It was a challenging and rewarding experience serving on the new 12-member board of a cooperative with 46,000 members that had the responsibility of breeding cows in seven states. It was particularly gratifying to see farmers remain in the cooperative during that transitional first

"Strong cooperative leadership by many throughout this period of change has resulted in an A.I. industry that remains dominated by farmer-owned, farmer-controlled cooperatives that are fully engaged in providing excellent products, services and economic benefits to their members."

year, when the cooperative bred 875,000 cows on member farms.

"We had an experienced technician group and district field men who efficiently coordinated our technician services. I was proud to be on a board that was working hard to set policies during this time of significant change, and then watching management effectively enact the policies. It was very rewarding to work with Charles Krumm, the new manager of Eastern AI (who had been manager of NYABC), who did a great job of challenging the directors and members, and motivating the staff." ■

Co-op mergers require insight, commitment

The experiences of A.I. cooperatives in the Northeast provide a glimpse at how cooperative consolidation occurred during a time of rapid change in genetic breeding in the dairy industry. Farmers were clearly excited at the prospect of breeding better cows, developing more productive herds and owning the business that provided these important breeding services. They didn't want to see the progress stall or diminish, so they negotiated mergers of their cooperatives to gain economies of scale, greater efficiencies and access to better products and services.

Commitment to the process and the critical thinking needed to carry it out came into play from many parties. It took strong leadership from the co-op boards of directors as well as expert consultation from university researchers, extension dairymen, other professionals and cooperative management. While merger isn't always the only strategy for improvement of cooperatives, there are times when it makes sense, as was the case here.

The resulting Eastern AI cooperative operated from the mid-1960s until the mid-1980s in New York and New England, as well as overseas.

When the cooperative found it necessary to gain further benefits for its members, especially in the growing international sales arena, it sought out further cooperation. In 1986, Eastern AI joined ranks with Atlantic Breeders Cooperative in Pennsylvania and the Louisiana Animal Breeders Cooperative. A partnership called Federated

Genetics was formed. This partnership used the full lineup of bulls from all three cooperatives and also conducted sales in non-member states and internationally.

The three partner cooperatives of Federated Genetics then fully merged into a single cooperative in the early 1990s (USDA Cooperative Programs provided technical assistance to the cooperatives during that time). In 1996, Federated Genetics was renamed Genex Cooperative Inc., when it joined Cooperative Resources International, a holding cooperative headquartered in Wisconsin. Genex has since grown even larger via mergers with other A.I. cooperatives.

The A.I. industry has seen many changes through the years, including many mergers, partnerships and working relationships. The joint efforts and consolidations have clearly helped the organizations prosper in a rapidly changing environment. Strong cooperative leadership by many throughout this period of change has resulted in an A.I. industry that remains dominated by farmer-owned, farmer-controlled cooperatives that are fully engaged in providing excellent products, services and economic benefits to their members. ■



COOPERATION ON TAP

Multi-stakeholder co-ops are force behind new Austin brewpub and fledgling effort in Seattle



A membership meeting of the new Flying Bike Cooperative Brewery in Seattle, Wash., which hopes to follow in the footsteps of Austin's Black Star Co-op Pub and Brewery (lower photo). Photos courtesy pictured co-ops

Co-op patterned on Belgium pubs

Black Star was born in Austin in 2006, after craft beer enthusiast Steven Yarak got the inspiration to open a community-owned neighborhood beer bar similar to those he had experienced in Belgium, a country with hundreds of small, traditional breweries. A flyer and Internet campaign resulted in a meeting in a vacant lot with 16 people, including Jeff Young, a trained brewer. Young wanted to take the idea one step further: not only to serve high-quality beer, but to brew it on the premises as well — a so-called “brewpub.”

Texas is not known for being a hotbed of craft-beer activity, ranking near the bottom of the list in numbers of breweries per capita. But Austin is a little different from most of the state: a university town with a thriving music scene and laid-back, youthful lifestyle. It has a solid market for craft beers. With a strong, almost small-town sense of community, it seemed an ideal place to try out Yarak and Young's ideas.

Getting the cooperative up and running proved to be more complicated than anticipated. Attracting members was not a problem. With seed money from the first members, a small home-brewing outfit was purchased and Young's beer recipes were soon attracting enthusiastic fans at gatherings such as beer socials and the Craft Brewers Conference, held in Austin in April 2007.

Many members, after paying the \$150 membership fee, were willing to purchase investment shares in amounts of up to \$50,000, which helped raise \$475,000. But jumping through the regulatory hoops and locating and leasing a site proved more difficult. For one thing, local regulations all but required operating a restaurant along with the bar, complicating the entire operation. The lease for a proposed site fell through at the last minute, disrupting schedules and leading to long delays.

Co-op a “unique work environment”

Finally, in September 2010, the cooperative opened a new brewery, taproom and restaurant in an attractive, post-modern building, located in a new mixed-use development near the center of town.

Black Star is a multi-stakeholder cooperative, with both consumers and workers as members. The operation is staffed by a “Workers’ Assembly of 17,” of which six are full-time staff, including Yarak and Young. The workers elect a liaison to the nine-member board of directors, which is elected to staggered, three-year terms by the Members’ Assembly. Members can pay their \$150 fee all at once, or over time after an initial \$40 payment. Members are entitled to

By Stephen A. Thompson, Assistant Editor
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A co-op isn't usually what one thinks of when one looks for a place to have a beer, but a couple of new cooperatives are working to change that.

The Black Star Co-op Pub and Brewery Co-op in Austin, Texas, recently opened its doors, and Seattle's Flying Bike Cooperative Brewery is riding a wave of interest and support among local beer lovers as it works to set up a brewery and taproom.

Both Austin and Seattle are significant markets for “craft beer.” Craft beers are brewed by low-volume “micro-breweries” to have more flavor and variety than popular mass-market beers. They are often inspired by British or other European traditional beers, or they can offer new and experimental brews. In the past 20 years, craft beers have carved out a small but growing segment of the market, especially in urban areas among young professionals, accounting for nearly 8 percent of the beer market in 2010.

“It’s been a real learning curve for all of us. We had to learn how to empower ourselves.”

participate in biannual meetings and “membership appreciation events,” patronage refunds and a free beer on each anniversary of joining the co-op.

Karinne Thornblom joined the Workers’ Assembly in August, 2009, after answering an online ad. She brought her experience in running her own coffee bar to the work of setting up and running the bar and restaurant. “It’s a unique work environment,” she says. It calls on workers to manage themselves, rather than be constantly supervised. “It’s been a real learning curve for all of us. We had to learn how to empower ourselves.” She calls her work “a labor of love.”

Thornblom says that so far the cooperative is doing well, paying its bills and offering a “good living” to its workers. The co-op has adopted the Rochedale Cooperative Principles, which call for community participation, educating and training members and the public, and working with and helping other cooperatives. Black Star hosts fund-raising events for nonprofits and other cooperatives, including Third Coast Workers for Cooperation, an Austin organization that promotes worker co-ops.

Enthusiastic start for Flying Bike Co-op

Black Star has also given help to a cooperative that hopes to follow in its footsteps. Seattle’s Flying Bike Cooperative Brewery was founded in March, 2010, by two friends who enjoy brewing their own beer, and decided they’d like to start a co-op to sell it. Like Austin, Seattle has a lively music scene and a young, active population. However, unlike Texas, Washington state already has one of the highest ratios of breweries to population in the country.

Founder and President Jeff Hicks says there is room for more. “The craft-beer market is exploding,” he says. “The existing breweries can’t handle the demand.”

Hicks talked to Black Star and developed a mailing list of about 50 people. A start-up meeting in the summer of 2010 drew about a dozen people, resulting in the election of a nine-member board of directors. A development plan was put together with the help of some Black Star members and the Northwest Cooperative Development Center, in nearby Olympia, using a model developed by CDS Consulting Co-op. CDS, headquartered in Putney, Vt., offers startup technical assistance to food cooperatives.

The plan originally called for a membership drive starting April 11, 2011, with the goal of signing up 300 members by June. However, that goal was reached in only four days and membership has continued to grow. Like Black Star, Flying Bike charges a one-time \$150 membership fee. All members joining before the co-op opens its doors get special lifetime benefits. The first 300 founding members are known as the

“Thirsty 300,” and will get a small price break on their beer.

Reaching their membership goal so quickly has put the founders on the spot. “We had no idea we’d get so many members so soon,” says Hicks. “We were expecting to have a little more time to get to the next step.” Current activities include conducting a location study. The cooperative is developing a “heat map” showing relative concentrations of members as an aid to finding the ideal site for its facility.

“In the meantime, we’re forming committees and people are scouting locations,” he says, “And we’re trying to figure out how big the restaurant and taproom should be.” Like those in Austin, Seattle regulations practically require a restaurant to be included. Like Black Star, Flying Bike plans to raise capital through member loans, and possibly other sources.

More information needed

One obstacle to progress is a lack of information. “There are no craft brewery consulting firms,” says Hicks. While the Northwest Cooperative Development Center and CDS have been very helpful, he says, “there’s only so much help they can offer. It would be great if there were guidelines for setting up brew-pub cooperatives, but there aren’t any yet.”

Hicks says that breweries in the Seattle area, though potential competitors, have been quite helpful.

Another problem is finding legal help. This task is complicated by the daunting legal and regulatory requirements faced by bars and restaurants. “We’ve had a lot of people calling us offering their services,” says Hicks. “But we’re having trouble finding people that have dealt with our situation. Do we need a brewery lawyer or a co-op lawyer?” Hicks thinks the cooperative will have to hire more than one attorney to handle the various legal filings and questions.

Flying Bike’s relationship with Black Star may help them avoid some pitfalls, Hicks says. The president of Black Star’s board has become a member of Flying Bike and the two cooperatives communicate regularly. “They’ve made some mistakes, learned some lessons that they’ve passed on to us,” says Hicks.

Hicks is enthusiastic about Flying Bike’s role as a pioneer in the cooperative brewpub business. He says the co-op is already talking to people around the country interested in setting up their own co-ops. He hopes that Flying Bike’s experiences and those of Black Star can be passed on to other cooperative brewpubs, making the process of establishing a community-owned brewery and taproom a little easier.

“It’s an opportunity to help others do better than we’ve done,” he says. In the meantime, he and his fellow founders have their hands full blazing the trail. ■

Long-term trends show co-ops relying less on member equity while use of debt increasing

E. Eldon Eversull
Agricultural Economist
USDA Rural Development
Co-op Programs

This article summarizes the findings of a new USDA Rural Development report: Cooperative Financial Profile, 2008 (Research Report 222). Free copies are available from: coopinfo@wdc.usda.gov, or calling (202) 720-8381. To download a pdf version from the Internet, visit: www.rurdev.usda.gov/rbs/pub/NEWPUB.htm.

As member- and user-owned businesses, cooperatives need to modify their financial structure periodically in order to successfully compete in U.S. and international markets. USDA has periodically documented the financial profile of farmer, rancher and fishery cooperatives during the past 50 years with a series of reports that began in 1954. It was updated in 1962, 1970, 1976, 1987, 1997 and 2008.

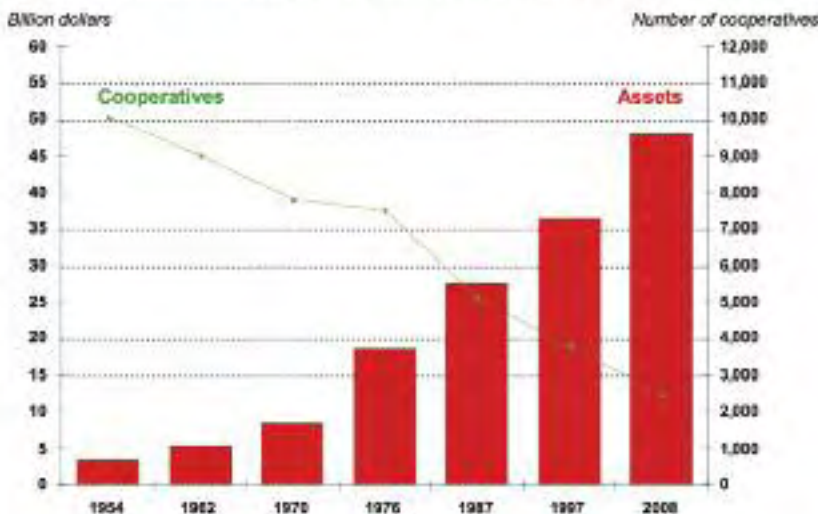
This article analyzes how cooperatives have changed their financial composition by focusing on the sources of capital for co-ops and how they distribute net income and net losses. Also included in the full report – but not discussed in this article – are common-size income statements and balance sheets, as well as ratio analysis based on seven cooperative asset sizes and eight cooperative types (based on products sold or marketed).

Long-term cooperative trends

During the past half century, the number of farmer and rancher cooperatives has dropped from more than 10,000 to just over 2,400 (Figure 1). Although fewer in number, total assets owned by farmer co-ops have grown substantially. In 2008, co-op assets were more than 13 times larger than the asset levels of 1954.

Co-op assets grew the most between 1970 and 1976. By dollar amount, the most rapid growth was between 1997

Figure 1—Number of Cooperatives and Their Total Assets, by Fiscal Year



and 2008. The 1,164 co-ops that responded to USDA's financial profile survey reported a total asset level of \$48.2 billion in 2008, which represents more than 78 percent of total cooperative assets, estimated to be \$61.2 billion [DeVilje, et al].

Funding sources

Funding sources consist of: (1) equity capital, (2) borrowed funds, and (3) other liabilities.

Equity capital is primarily derived from net income and is influenced by decisions made by the board of directors regarding distribution of net income, equity redemption and the use of debt or equity to finance assets. User-owners finance cooperatives through the accumulation of equity capital, by direct investment, patronage refunds and per-unit retains. Without equity accumulation, the cooperative cannot grow. To maintain investment proportionality among current and past users, equity redemption is used by most cooperatives.

Direct investment in a cooperative is usually through the purchase of an ownership share or shares. Preferred stock may also be used. Patronage refunds are net income allocated to a patron based on the quantity or value of business conducted with the cooperative. Per-unit retains are not based on net income, but rather on the amount of products sold through the cooperative or business conducted. Marketing agreements with members or bylaw provisions establish the authority for the cooperative to deduct per-unit retains from product payments.

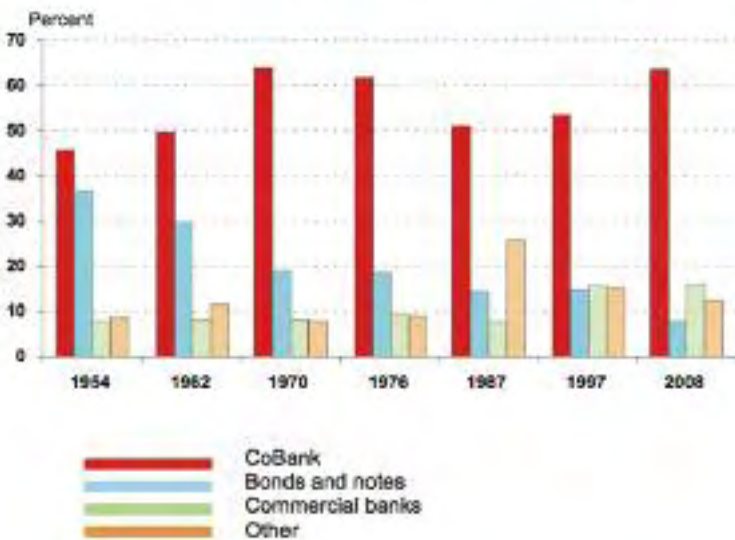
Allocating net income and redeeming equity are unique practices of cooperatives. The bylaws of the cooperative govern its net income allocation and equity redemption. The cooperative's board of directors is responsible for determining the allocation of net income and equity redemption. Capital accumulation is the result of net income allocation and equity redemption.

More than a half century ago, equity

Figure 2—Cooperatives' Funding Sources by Fiscal Year



Figure 3—Sources of Borrowed Funds, by Fiscal Year



capital financed 57 percent of cooperative assets — about the same amount as in 1962 (Figure 2). Equity levels declined through 1976, but then increased until 1987. Equity levels dropped in 1997 and 2008, when only 32 percent of assets were funded by equity.

Borrowed funds come from CoBank, commercial banks, bonds and notes

issued by the cooperative, loans from other cooperatives or their financial subsidiaries and other sources and lenders. Borrowed funding as a percent of total assets reached a high of 33 percent in both 1970 and 1976, only to fall below 30 percent in 1987 and 1997. Reliance on borrowed funds rose above 31 percent again in 2008.

CoBank is the main source of

borrowed funds for cooperatives (Figure 3). CoBank is the surviving bank for cooperatives after a series of mergers among cooperative banks that are part of the Farm Credit System.

CoBank and its predecessors provided more than 64 percent of all funds borrowed by cooperatives in 1970. CoBank provided about the same percentage of borrowed funds in 2008, although its percent of all co-op lending dropped somewhat between these two time periods.

From 1954 through 1976, bonds and notes issued by cooperatives were the second highest source of borrowed funds. About 37 percent of borrowed funds in 1954 were derived from bonds and notes. But this funding source has fallen steadily, dropping to only 8 percent of borrowed funds in 2008.

dealers, the Small Business Administration, industrial revenue bonds, certificates of debt and the Commodity Credit Corporation. Overall, other sources of borrowed funds fluctuated from 9 percent in 1954 to 26 percent in 1987, dropping back down to 12 percent in 2008.

“Other liabilities” are obligations due suppliers, members and others. Obligations due suppliers are dependent on the type of business a cooperative conducts. Dairy marketing cooperatives have fairly steady business levels throughout the year, and thus have about the same funding obligations to their suppliers (i.e., raw milk payments to members). Farm supply cooperatives, on the other hand, have a more cyclical payment process to suppliers of seed, fertilizer and crop protectants. Thus,

Distribution of net income

Distribution of net income provides equity accumulation through non-cash patronage refunds and unallocated accounts. Distribution of net income is shown in Figure 4. For most of the survey years, cash and non-cash patronage refunds comprise the majority of net income distribution. Cash patronage of 31 percent of net income or losses in 1954 rose to 41 percent in 1970, but has since steadily declined, to 27 percent in 2008.

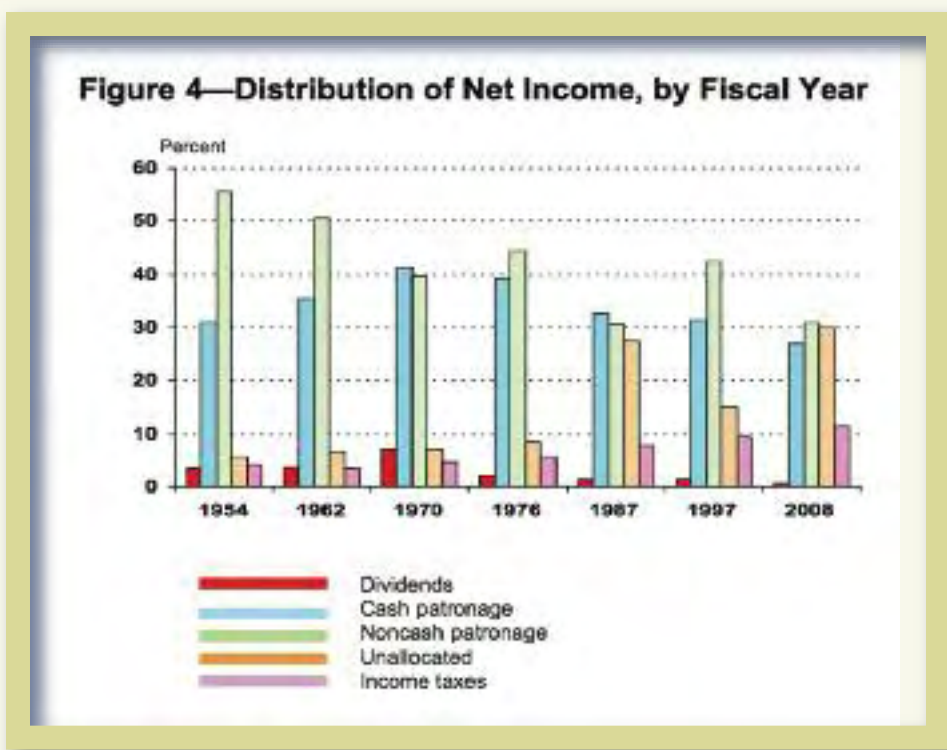
Non-cash patronage refunds have declined overall, from 56 percent in 1954 to 31 percent in 2008. There were increases (to at least 43 percent) in both 1976 and 1997. Unallocated distribution of net income or losses increased from 6 percent in 1954 to 30 percent in 2008.

In the 1987 and 2008 surveys, unallocated distribution of net income (retained earnings) was equal to, or larger, than the distribution for cash patronage and non-cash patronage. There were large losses in both 1986 and 2007, followed by large growth of income in the following years. Some of the growth in retained earnings in 1987 and 2008 may have been applied to offset losses charged against retained earnings in the prior years. Of the 1,164 respondents, 83 had losses in 2008. Almost all of the co-ops distributed losses to retained earnings. ■

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Commercial banks provided about 8 percent of borrowed funds from 1954 through 1987, but borrowing from commercial banks grew to 16 percent in both 1997 and 2008. The final source of borrowed funds is a catch-all “other” category. “Other” consists mainly of loans from other cooperatives or their financial subsidiaries, equipment

they have higher obligations due to suppliers in late winter and early spring, when inventories are built up.

There has been a steady increase in the use of other liabilities to finance assets. Other liabilities have risen from 18 percent in 1954 to 37 percent in 2008 (Figure 2).

By Janet Kubat Willette

Editor's note: this article is reprinted courtesy Agri News.

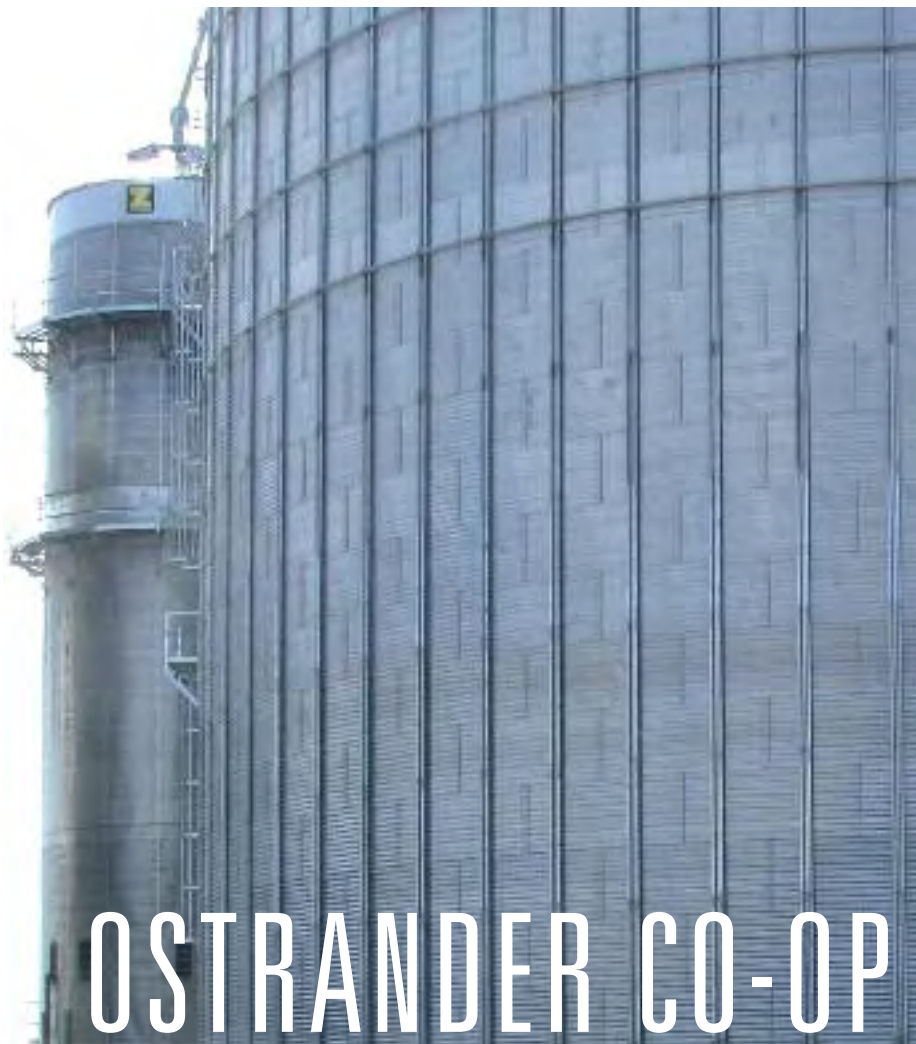
Ostrander Farmers Cooperative capped its 100th year with its induction into the Minnesota Grain and Feed Association (MGFA) Century Club. The induction occurred during the MGFA's 104th annual convention in Duluth.

"It's something to celebrate, being 100 years old," said Matt Litwiller, general manager of the cooperative.

"There aren't too many businesses that can say that," said Wayne DeWall of Grand Meadow, secretary of the cooperative board of directors. "It is pretty awe-inspiring I guess. It's pretty hard to believe where we've come from and where we're going."

When the cooperative started in 1910, there was no electricity. Seed and grain were moved by hand. The cooperative handled primarily coal and discouraged the storage of grain, Litwiller said.

Highlights of the cooperative's history are spelled out in documents created in celebration of the cooperative's 100th anniversary. O.P.



OSTRANDER CO-OP JOINS CENTURY CLUB

Capital investments improve services for members

By Janet Kubat Willette/ Agri News

On May 1, 1910, 12 forward-thinking farmers established the Farmers Cooperative Elevator and Mercantile Company of Ostrander. Today, nearly 101 years later, the Ostrander Farmers Cooperative is led by a five-member board with a vision for growing the cooperative as it enters its second century.

"It's a really good group of guys that are working on the board," said board secretary Wayne DeWall of Grand Meadow. "We take everything into consideration. We may not always please everybody...we're trying to do what's best for

the cooperative to make it survive another 100 years."

The cooperative has grown from its Ostrander location, which was established to serve the farmers in Beaver and Bloomfield townships in Fillmore County and Bennington Township in Mower County, to a cooperative that serves farmers in five counties in two states from locations in four communities.

The cooperative has locations in Ostrander, Wykoff, LeRoy and Chester, Iowa. It serves farmers from Fillmore, Mower and Houston counties in Minnesota and Howard and Mitchell counties in Iowa, said Matt Litwiller, general manager of Ostrander Farmers Cooperative.

The co-op is the largest employer in Ostrander, with 30 year-round employees and an additional 10 seasonal employees, hired in spring and fall.

Hadland was president from 1910 to 1924. Ervil A. Dugstad was the notary public who signed the original articles of incorporation. Copies of the five, neatly handwritten papers are on display. They keep the originals in a safe place, Litwiller said.

In the mid-1920s, the cooperative received electricity; in the 1930s it purchased a radio to keep in touch with grain markets.

The Depression took a toll, but a dividend of 50 cents a share was paid to shareholders with current accounts. The general manager lowered his salary to \$100 a month to help control costs.

The 1940s and 1950s were decades of growth. In the 1940s, the cooperative purchased its first truck and a lumberyard. In the 1950s, it purchased a feed mill and in 1955 installed its first grain dryer — a 475-bushel batch dryer.

Interest rate jumps in the 1960s made the business a struggle at times, according to historical documents. Interest rates jumped from 6.5 percent to 8.25 percent in a four-month span. The drought of 1964 brought losses for the cooperative.

In 1969, though, the cooperative board approved a profit-sharing plan for employees.

Financial challenges continued in the 1970s as interest rates climbed to

13.75 percent. Accounts receivable were at an all-time high in 1979.

The lumberyard was sold in the 1980s. The board considered purchasing computer programs. Interest rates were 15.75 percent to 16.25 percent.

The 1990s were a period of growth. The cooperative purchased grain elevators in Wykoff and Chester and entered a joint venture with LeRoy cooperative elevator.

The cooperative celebrated its 100 years with a big event that attracted more than 450 people for a meal, Litwiller said.

The cooperative now offers grain storage, grain marketing, grain drying and full agronomy services. It also sells seed and propane.

DeWall said when he looks through



Even after 100 years in operation, the Ostrander Farmers Cooperative is always looking for new opportunities. Matt Litwiller is the co-op's current general manager. Photos by Janet Kubat Willette, courtesy Agri News

the minutes of the past 100 years, the issues were similar. He recalls one meeting where the board members discussed whether or not to buy a rail car of fertilizer.

“We’re always looking for different opportunities,” DeWall said. “We’re also open to researching anything new. Our board is a board that doesn’t take any decision lightly.”

Decisions have to be unanimous, he said. If any member has questions, the issue is further researched.

The opportunity in Ostrander and surrounding communities is huge, Litwiller said. Farmers who used to grow 140 to 150 bushels of corn per acre are now growing 180 to 200 bushels, he said, adding that he’ll see 300 bushels per acre in his lifetime.

The cooperative is growing, much like cooperatives in Iowa did five years ago, Litwiller said. He previously worked in Fort Dodge, and is from southeast Iowa.

While there are many opportunities in the grain and agriculture industry, the primary challenge is volatility, Litwiller said, noting that it costs four times as much to purchase grain as it did two years ago. The cooperative needs to have a strong balance sheet and to control those expenses that it can. ■

The cooperative has made significant capital investments in recent years. A new office was added at the Ostrander grain location in 2008. A 750,000-bushel grain bin, a 1 million-bushel air pile, a 100,000-bushel wet bin and a 5,000-bushel-per-hour Zimmerman tower grain dryer were constructed in 2009. The cooperative received a grant from USDA Rural Development to install the energy efficient dryer, Litwiller said.

People used to wait three hours to dump grain at Ostrander, Litwiller said. Moving 40,000 to 50,000 bushels of grain was a big day.

The cooperative now handles 125,000 bushels a day at Ostrander, where the longest wait is 40 minutes. The improvements generated \$53,000 in tax revenue for Fillmore County and \$16,000 for LeRoy-Ostrander Schools.

Improvements were also made at the Wykoff location.

Farmers used to wait three hours, but after improvements made last year, the wait dropped to 30 minutes, Litwiller said.

The cooperative added a 550,000-bushel bin and a 15,000-bushel-per-hour grain leg. They also added a 6,000 bushel-per-hour-grain dryer.

The additional grain capacity helped the cooperative grow its grain business volume by 3 million bushels from 2008 to 2010, Litwiller said. In 2008, the cooperative handled 3.2 million bushels of grain. By 2010, that number had climbed to more than 6.5 million bushels.

Everything is hauled into and out of all four locations on wheels, Litwiller said. Markets are ethanol plants in Preston and Lyle and New Hampton and Charles City, Iowa, and Mississippi River ports in Winona and McGregor, Iowa. ■

Newsline

Co-op developments, coast to coast

Send co-op news items to: dan.campbell@wdc.USDA.gov

Co-ops rally to help Japan

Nebraska farmers and co-ops are donating grain to aid victims of the earthquake and tsunami that devastated portions of northeast Japan in March. The assistance program has been developed by the Nebraska Corn Growers Association, Aurora Cooperative and Cooperative Partners Inc., which are working in conjunction with the American Red Cross. Farmer-owned KRVN rural radio is also supporting the initiative.

Aurora Cooperative has 19 grain-delivery locations across the state and all are participating in the program, which runs through July 30. As of April 13, farmers had already donated more than 6,100 bushels of grain that sold for more than \$43,000 through Aurora Cooperative locations.

"Farmers often help out a neighbor in need. This is a great way to extend that generosity," says George Hohwieler, chief executive officer of Aurora Cooperative. "Farmers can simply deliver grain to one of our locations and designate the entire load, or a percentage of the load, to relief efforts. Farmers will get a receipt for their contribution and 100 percent of the dollars from the sale of that grain will go to the Red Cross."

"We've seen an incredible response



Farmers and co-op employees in Nebraska are helping to raise money via grain donations to aid victims of the devastating earthquake and tsunami in Japan. Photo courtesy Aurora Cooperative.

to the grain donation program. It's the largest program we've ever had in our chapter, and dollars generated will go directly to the Red Cross international relief effort," says Renae Foster, chief operating officer of the Central Plains Regional Chapter of the American Red Cross, adding that "the need in Japan is staggering."

For more information, contact Dawn Caldwell at Aurora Cooperative: dcaldwell@auroracoop.com, or 402-694-2106.

The Cooperative Development Foundation (CDF), in Arlington, Va., is also accepting contributions to aid in the recovery. Japan is home to the Japanese Consumers Cooperative Union and to many other cooperatives, including student housing cooperatives. CDF's Elizabeth Bailey notes that the Japanese Consumers Cooperative Union donated the seed money for CDF's Kagawa Fund, which has made more than \$800,000 in loans to expand

student housing co-ops across the United States, enabling many students to afford college while teaching them leadership, financial, and management skills.

For more information, visit: www.CDF.coop, or write CDF at 2011 Crystal Drive, Suite 800, Arlington, Va. 22202.

DFA promotes environmental stewardship

In observance of Earth Day on April 22, Dairy Farmers of America Inc. (DFA) released the results of an internal assessment that is helping the co-op better understand the environmental impact of its operations and determine and manage its "carbon footprint." The consumption of fuel and electricity in its plants, fuel use by DFA vehicles and the impact of renewable energy programs for members were all examined to establish a benchmark from which the cooperative can measure the results

of current and future sustainability initiatives.

“Whether it is in our plants, on the road or on member farms, we are working to ensure that DFA and our members’ legacies last for generations,” says David Darr, vice president of sustainability and public affairs. “This includes efforts in the areas of energy usage, transportation and animal care and wellness.” DFA’s 21 wholly owned plants have completed, or are planning, 150 projects with a sustainability focus, from instituting new wastewater treatment programs to upgrading lighting systems.

Examples of sustainable innovation at DFA plants include:

- Water management at the Hughson, Calif., plant, has resulted in an 11.2-percent reduction in well water use and a 120,000-gallon-per-month savings by using re-circulated water.
- Facility upgrades and process improvements at the Springfield, Mo., plant have decreased use of electricity, water and natural gas. Projects include lighting upgrades, a steam-trap survey and repairs, installing a new boiler control system, reclaiming glass rinse water and reducing use of compressed air.
- Process improvements at the Fort Morgan, Colo., plant, have reduced energy use and conserved water. Re-using the water removed from milk in the concentration process for cleaning has reduced water use by 2 million gallons per year.

In addition, all five of DFA’s contract manufacturing plants have committed to the Energy Star Challenge, with a goal to reduce energy use by 10 percent or more within five years.

In 2010, average fuel efficiency among DFA’s transportation fleet increased 9.1 percent from the year before. DFA has also been phasing in larger capacity milk trucks. In 2010, DFA’s use of higher capacity trucks in Colorado reduced annual milk truck trips by 5,838, or 517,580 miles driven. That saved 94,105 gallons of fuel and 2,098,541 pounds of carbon dioxide.

More than 30 member farms

conducted energy efficiency audits during 2010 in partnership with DFA’s Dairy Energy Services (DES). These dairy energy audits identified an average annual savings of 31,922 kilowatt per dairy, for an average cost savings of \$3,494. Through DES, members can also participate in wind and solar power assessments.

United Co-op celebrates 75th anniversary

United Cooperative, Beaver Dam, Wis., is observing its 75th anniversary with the news that its sales topped \$325 million in 2010, accompanied by a sizable jump in income.

“Happy 75th anniversary! We’re officially century bound,” David Cramer, United Cooperative president and chief executive officer, said in welcoming patron-members to the co-op’s annual meeting in April. “Some of us will be here for that [100th anniversary], and some of us won’t; but you can be sure the cooperative will be

here in another 25 years and beyond.”

Cramer reported that the co-op’s pre-tax income for 2010 was \$24.3 million, or \$11.6 million more than in 2009. Investments in three ethanol-production facilities contributed more than \$10.7 million to its net income, while patronage from regional cooperatives added another \$3.7 million.

On April 11, United released \$3.65 million in cash to patrons. During 2010, more than \$6.6 million in cash was paid to members in equity retirement, dividends on capital stock and patronage.

Formed in 1936, United Cooperative is a full-service cooperative offering feed, grain, agronomy and energy products and services to Wisconsin farmers and consumers.

Cotton co-op sponsors denim design competition

Apparel design students at Texas Tech University got a “field to fashion”



Loading railcars with grain at United Cooperative’s Ripon facility. The Beaver Dam, Wis.-based co-op is celebrating its 75th anniversary. Photo courtesy United Cooperative

look at the cotton industry by competing in the Denim Runway 2011 design contest, sponsored by Plains Cotton Cooperative Association (PCCA) and Cotton Council International (CCI). The contest is held in collaboration with the university's Apparel Design and Manufacturing Department (ADM). The main goal is to help contestants understand all of the links in the denim apparel supply chain.

"It is vitally important for consumers to know and understand where their fiber comes from and everything involved in the entire supply chain," says PCCA president and CEO Wally Darneille.

Last October, students visited a Lubbock-area cotton farm during harvest to learn about cotton production and the environmental stewardship practiced by farmers. They also visited a cotton gin and heard presentations about PCCA's cotton-marketing programs. In February, students toured PCCA's denim mill.

The design contest consists of a fashion jeans (for men and women) design competition, as well as two new categories this year: a casual wear design contest and a cotton-trends competition, in which students research trends for cotton fiber and apparel.

Organic Valley expands members, products in Northeast

Organic Valley has announced that it will welcome up to 53 organic farmers from Lancaster County Organic Farmers Cooperative (LOFCO). Organic Valley, based in La Farge, Wis., is the nation's oldest organic farmer-owned cooperative, founded in 1988.

LOFCO says it hopes the alliance with Organic Valley will bring it a more stable market. Organic Valley will offer full membership to LOFCO organic dairy members, pending a period of due diligence, as is standard procedure for Organic Valley. During that period, it will conduct individual farm visits to review farm conditions and milk quality of each farm, as well as inspect their pasture plans.

"We have a shared mission with LOFCO of keeping farmers on farms," says George Siemon, a founding farmer of the co-op and its self-described "C-E-I-E-I-O." "Our regional model supports local farmers and economies, and our ties in the farmer communities of Pennsylvania run deep. It is an honor to have these farmers ask to join us."

In other co-op news, Organic Valley has launched New York Fresh organic milk for consumers in the New York City metropolitan region. The milk is produced on the cooperative's family farms in the Empire State and bottled, distributed and sold in the region, "ensuring fewer miles from farm to table," Siemon says.

New York Fresh milk is available in skim, low fat, reduced fat and whole varieties. New York Fresh cartons will feature images and stories of the farmer-owners who produce the milk. The packaging will also display the "Pride of New York" logo.

"Our vision is simple: keep it organic and close to home," says Siemon. Organic Valley has 222 farmer-owners in the Northeast and another 174 in New England. Organic Valley reports that sales grew to \$621 million in 2010, exceeding expectations.



CHS Acquires Eastern European Grain Co.

CHS Inc. has acquired Agri Point Limited from East Point Holdings Limited in Nicosia, Cyprus. The Agri Point acquisition is part of the co-op's ongoing global grain-origination expansion, adding about 1.5 to 2 million metric tons of corn, wheat and barley.

"Acquiring Agri Point enables CHS to further develop its global competency and presence into the high-growth areas of Romania, Bulgaria, Hungary and Serbia," says Claudio Scarrozza, general manager for CHS Europe. "In addition, we're adding important infrastructure to our global supply chain capabilities with a deep-water port in Constanta, Romania, a barge-loading facility on the Danube River at Giurgiu, Romania; and an inland grain terminal at Oroshaza, Hungary."

In other CHS news, the co-op has begun trading fertilizer at its European operations office in Geneva, Switzerland. CHS currently sources crop nutrients from 19 countries, but until now has only marketed fertilizer products domestically.

"In many [market areas], we're already shipping grain to the same regions where we buy fertilizer. Fully integrating these businesses will help us maximize our sourcing and logistical strengths and better serve customers," says Mark Palmquist, CHS executive vice president and chief operating officer for Ag Business.

Schlangen new board chair at AMPI

Steve Schlangen, a dairy farmer from Albany, Minn., has been elected chairman of the 3,000-member Associated Milk Producers Inc. (AMPI), in Bloomington, Minn. He was elected to the post following the co-op's annual meeting in March.

"Steve's genuine ability to connect with others and maintain a clear vision for the cooperative will be a great asset as he assumes the role of chairman," says AMPI President and CEO Ed Welch. "He understands the core values



Steve Schlangen

of AMPI and the need to aggressively pursue member interests in the economic and political arenas.” Schlangen and his wife own and operate a 65-cow dairy farm. He has served on the AMPI board of directors since 2001. “I am very humbled and proud to represent my fellow co-op owners and will work hard to ensure AMPI remains the best milk market for Midwest dairy producers,” Schlangen says. He succeeds Paul Toft, who farms near Rice Lake, Wis., and retired after serving as AMPI chairman for the past decade.

The 400 delegates and guests at the two-day annual meeting in Bloomington were told that the co-op had achieved a fifth consecutive year of sales increases, with sales of \$1.7 billion. Despite strong sales and profitable operations, a year-end market drop devalued product inventory, resulting in a \$1.5-million loss for the cooperative. AMPI members still shared \$12.9 million from the previous year’s earnings and member equity.

More than half of AMPI sales came from consumer-packaged dairy products. Sales of packaged and

processed cheese grew 5 percent, butter sales were up 7 percent, pudding and cheese sauce sales jumped 10 percent, and ice cream-mix sales climbed 19 percent. The industry saw increased global demand for dairy proteins last year, which led to improved milk prices following the depressed markets of 2009. AMPI sold more than 28 percent of its powdered dairy products internationally.

Sunkist to brand table grapes

For the first time in nearly 120 years, Sunkist Growers Inc., a Sherman Oaks, Calif.-based citrus cooperative, will market table grapes bearing the Sunkist brand. The expanded fruit line, which is debuting this spring, is the result of partnerships between Sunkist and two California grape grower-shippers: Richard Bagdasarian Inc., of Mecca, and Reedley-based Bravante Produce.

Sunkist expects to bring about 2 million cartons of grapes to market,



including multiple varieties of red, green and black seedless grapes, as well as the red globe seeded variety.

Because Bagdasarian’s acreage is in the California desert, where grapes ripen early, while Bravante grows grapes in the San Joaquin Valley, the partnerships will provide Sunkist-branded table grapes from May into late fall.

“The synergies created by combining Sunkist’s marketing expertise and the experienced sales networks within the two grape operations adds

value to both,” says Russ Hanlin, president and chief executive officer of Sunkist.

“Sunkist is one of the best known and most trusted brands in fresh produce,” says Nick Bozick, president of Richard Bagdasarian. “This expansion of the Sunkist produce line is a marriage between high-quality growers and a world-class brand.” Bagdasarian and Bravante also grow Sunkist citrus.

Evergreen model impresses HUD official

In a recent interview with *Shelterforce* magazine, Ron Sims, the deputy secretary of the U.S. Department of Housing and Urban Development (HUD), called Cleveland’s Evergreen Cooperative model “brilliant” and outlined how HUD aims to revise its own Section 3 program to encourage co-op formation. (See the Nov.-Dec. 2010 issue of “Rural Cooperatives,”

page 12, for an overview of the Evergreen family of co-ops, which includes worker-owned co-ops that operate a commercial laundry and a solar panel installation business.)

“...I said to the people in HUD, ‘Have we ever thought about telling [residents of poor communities] why don’t we make you the employer?’” Sims told the magazine. “Isn’t that what we really want to achieve in the end: self-sustaining employment — to have them take a risk so they are the ones

knowing they have to go to work because, in the end, it is their company?”

“Now that’s what they did in Cleveland at the Evergreen Co-op. They’ve applied it to solar, and they’re now doing a plan so that they will grow crops in the winter in these large greenhouses...Again, all the participants will be people out of these poorer communities. Brilliant.

“So we are now changing what we call Section 3. We have a team that we’ve sent out in the country to look at innovative practice, and then we’re

going to create training sessions. All because I was out in Cleveland.”

Prairie Skies Co-op to build biofuels facility

Plans have been announced to build a “third-generation biofuels project” in Madelia, Minn., that will use agricultural feedstocks to produce gasoline, diesel and ammonia. Prairie Skies Biomass Co-op, a local grower cooperative, has announced that it will supply the feedstock and own a torrefaction facility as part of the first phase of the project. Two additional phases will provide a combined-cycle power generation facility and fuels/ammonia facility.

The gasoline and diesel produced will be “drop-in fuels,” not an additive or blend stock. A mix of locally grown feedstocks will be converted to an energy-dense, torrefied material in this first phase. The main feedstocks will include native grasses, alfalfa, wheat straw, corn stover and willow. The 300-ton per day facility will produce about 75,000 tons per year of torrefied material and other co-products.

The project supports and advances the sustainability goals of the Madelia Model, a rural development concept developed by Rural Advantage, a Minnesota nonprofit corporation. The facility will employ 20 permanent fulltime positions plus additional positions throughout the feedstock supply value chain.

For more information, contact Linda Meschke, spokesperson for the Prairie Skies Biomass Co-op, at: linda@ruraladvantage.org or 507-238-5449.

Record-setting year for Westby Creamery

Westby Cooperative Creamery held its 107th annual meeting in January, where it reported record sales of \$37 million, a 20-percent gain over 2009, General Manager Pete Kondrup reported to the more than 100 member dairy farm families, employees and

friends in attendance. According to a report in the *Wisconsin Ag Connection*, a record 110 million pounds of milk passed through the cooperative as fluid or manufactured dairy food products, including a growing volume of certified-organic milk. Kondrup said member patronage distribution of 24 cents per hundredweight was also paid as cash, with 36 cents per hundredweight provided as stock certificates to members.

Wisconsin Ag Connection also reported that Kondrup said the co-op has added



Westby Creamery Cooperative has continued to grow its business through a mix of Westby brand and private-label product sales. Photo courtesy Westby Creamery Cooperative

more new dairy farm members than in any other year in recent history, and is now owned by 137 Wisconsin dairy farm families, many of whom are fourth- or fifth-generation family farmers.

“Our business has continued to grow through a good mix of Westby brand and private-label retail products,” Kondrup said, noting that Food Service and Ingredient customer segments have also grown, with increased sales for

cultured products, butter and hard cheeses. “With record sales and net income, we have strengthened our balance sheet, reduced debt and increased our capital reserve for investments in operations and new product development.”

Virginia broadband co-op's efforts create jobs

Virginia Governor Bob McDonnell has announced that ICF International, a global professional services firm, will open its first operations center for business process management in Henry County, Va. ICF International partners with government and commercial clients to deliver professional services and technology solutions for a wide variety of sectors, including in the energy, environment, transportation, health, education, homeland security and defense markets.

This \$15-million center will bring 539 new jobs to the region. The operations center will be in the Patriot Centre Industrial Park, designated as a Virginia “GigaPark.”

GigaParks is a marketing initiative created by the Mid-Atlantic Broadband Cooperative (MBC) to showcase the benefits of more than 100 business, industrial and technology parks in Southern and Southwestern Virginia. These parks have access to a high-capacity broadband infrastructure, along with a low-cost operating environment.

“We’re very proud that MBC’s advanced open-access fiber optic network played an important role in ICF’s decision to locate at the Patriot Centre GigaPark,” says Tad Deriso, president and CEO of MBC. “Our infrastructure enables companies like ICF to locate their operations center in a low-cost region, yet still enjoy carrier-class network connectivity to the world.” More than 60 private-sector telecom providers are members of the co-op. ■

Co-ops for Caregivers

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from the center, direct-care workers could ensure that the transition to home goes smoothly and that strategies for healthy eating, exercise and hygiene become routine.

These forward-thinking institutional partners should share a common trait: a desire to reduce overall health costs (by avoiding the need for additional medical intervention) and to help patients live life to the fullest.

Health systems would have more of an incentive to partner with direct-care workers and care recipients if Medicare, Medicaid and private insurance reimbursement were based upon the added benefits of healthy outcomes, rather than fee-for-service. For example, in October 2012, the federal health law will penalize hospitals if they have higher-than-expected rates of readmission for three medical conditions (heart attack, pneumonia and heart failure).

To reduce readmissions, hospitals are encouraged to enter

into accountable care organizations, in which a team of providers (hospitals, primary care doctors, home health agencies) agree to share responsibility for taking care of a group of patients. A pilot project could evaluate and document presumed cost savings and healthy outcomes.

Next steps

The Cooperative Development Foundation plans to explore the multi-stakeholder co-op model in the provision of home-based care, and will conduct a feasibility study. CDF will search for potential pilot sites to test the model and seek out partners, such as local hospitals or advocacy groups, which may enter into membership of a homecare co-op.

For more information on multi-stakeholder co-ops, read *Solidarity as a Business Model: A Multi-Stakeholder Cooperatives Manual* recently published by the Cooperative Development Center at Kent State University (and funded by the 2010 Rural Cooperative Development Grant from USDA Rural Development): www.oecockent.org. ■

Tanzanian Dairy Farmers

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Building upon earlier work

The challenges experienced by the women of Marukeni and their excitement about the breadth and depth of assistance TDDP will provide for the entire value chain is reflected by a preponderance of beneficiaries along Tanzania's northern corridor.

Unable to trust they would be paid fairly by informal collectors, six women living on the outskirts of Moshi decided in 1996 to begin pooling and collectively selling their milk to local shops and individuals. Although the group doubled to 12 women over the next three years and began experimenting with making Tilsiter cheese, the members' lack of knowledge in a number of areas hindered growth.

Through an earlier USAID-funded program, Land O'Lakes in 2001 helped the women formalize their group and register as the Kijimo Women's Cooperative. "Land O'Lakes helped us secure a 1,500-liter cooling tank and they sent seven of our members for training on improved milk production, animal husbandry and processing," recalled Kijimo's chairwoman, Margaret Sirikwa.

Through this training, women were able to diversify their product base to include mozzarella, Gouda and Camembert cheeses, as well as cultured milk, Sirikwa noted. As a result, the women started selling their products not only in Moshi and Arusha, but also in the capital of Dar es Salaam. "Just as important as improving our technical expertise, Land O'Lakes helped us learn what it really means to be a

cooperative," said Sirikwa. "We learned how to keep records, do basic accounting, understand the cooperative law and effectively manage our business. We were also able to grow our membership to 54 women, since members knew we could guarantee milk sales and help them realize a profit."

Meeting growing demand for cheese

Given the growing demand for cheese, particularly among tourists, the biggest challenge for the women of Kijimo is how to enhance their product supply through enhanced milk production.

"It has been over five years since we last received technical training from Land O'Lakes, and our members could use refresher trainings on feeding and breeding through the new USDA program so that we can enhance production," noted Sirikwa. "But if we can further grow our supply of milk, I'm confident we can meet market demand."

Although the rural farmers need substantial technical assistance to fully realize the fruits of their labor through dairy development, the program is already aggressively on track for meeting its targets. In late March, just three weeks into program implementation, TDDP had already established three program offices and trained about 770 farmers in animal husbandry.

Beyond the direct beneficiaries of this new USDA-funded program, Tanzanian government officials have made clear their hopes about how much the program will achieve. Minister of Parliament Benedict Ole Nangoro, the deputy minister for livestock and fisheries, has said that he believes TDDP could "serve as a model and generate lessons learned for improved food security that can be emulated elsewhere in the country." ■

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The CDs are free, and can be ordered by sending requests to coopinfo@wdc.usda.gov or james.wadsworth@wdc.usda.gov

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Virtual food hub

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and administrative expenses associated with running the program. With one order, one payment and one pick-up, customers can order food from many different family-owned and -operated farms and small businesses.

The program is also easy for producers to use. Producers sign up with as many hubs as they can service, based on geographic and time considerations. From each hub, the producers can then choose the number of delivery/pick-up locations that they want to service each week.

Producers post products available for sale and set their own prices. They collect and prepare orders, then make their own deliveries. There are no minimum or maximum quantities for any product sold. Producers can remove their listings at any time.

Some growers only raise one crop and sell for only a few weeks each year. Others post their products year-round, while others come and go with postings throughout the year. This flexibility allows producers to extend their growing seasons and try new products.

Not just for the well-to-do

Each hub has multiple delivery/pick-up options. For instance, Fall Line Farms, one of the hubs using the Lulus program, is a year-round co-op with more than 75 members and 500 active customers. More than 2,000 locally produced agricultural products are offered each week at a dozen pick-up locations around Richmond. For this hub, sales average \$10,000 a week.

Patchwork Farms, a new food hub in rural Louisa County, Va., is not only changing the way farmers source food for their own families, but has also set up a network structure for farmers to expand their market reach into larger urban cities which, in the past, they lacked sufficient volume to service.

Expanding into both urban and rural areas has shown that support for local

food is not just a trend for the well-to-do. Many of the program's thriving sites are located in working class communities where families want healthy food and to support local producers.

Increasing sales to local restaurants and education and healthcare institutions will open more doors for producers. Providing virtual tools for making these transactions seamless and efficient opens new venues for cooperative aggregations of producers.

Supporting communities

The Lulus network also has significant ties to local communities through its support for schools and charities.

When crops mature, there is often an abundance of an item which needs to be picked and sold quickly. Lulus' Pounds of Plenty program allows customers the opportunity to make a donation of local food products to selected community charities, such as the Virginia Food Bank and Meals on Wheels.

Producers love the program because they get paid for more of their production, the customer gets a receipt for tax purposes and the charities receive fresh local foods. Since it started in 2009, more than 1,200 pounds of fresh produce and grass-fed ground beef have been donated to charities in metropolitan Richmond.

"Thanks to the variety and amount of food that we receive through generous donors like Fall Line Farms, we're able to provide options to people in local communities who may not have access to such items," says Kim Bridges of the Central Virginia Food Bank and Meals on Wheels for Central Virginia. The food bank often serves needy people living in food deserts, "where the closest store doesn't offer affordable, healthy food options. For these clients, getting fresh produce or protein can be very challenging. We're grateful to have such help in the fight against hunger."

Through its farm-to-school program, Lulus provides a venue for local food producers to work

cooperatively to fulfill contracts with area schools. The contracts include preapproved items that meet the requirements of the school menus. The program also creates an efficient way for school nutrition directors to place and track orders and make payments through a centralized purchasing arrangement designed for sourcing local food.

The flexibility of this virtual buying tool allows producers to reach both public and private educational institutions. Availability of fresh produce is often limited in the winter, so the ability to aggregate products electronically to meet demand for large orders opens up a whole new market for small growers.

For events such as Earth Day and fall harvest festivals, Lulus' producers have been invited onto school campuses to visit with students and share information about their sustainable farming practices.

Dee Scherr runs a small farmer cooperative in the rural southeastern region of Virginia that sells produce through Lulus' food hubs and to local restaurants. It also participates in the Pounds of Plenty and farm-to-school programs.

"Through the Pounds of Plenty program and the generous support of co-op customers, we can bring the same fresh produce — cucumbers, tomatoes, collards, kale and sweet potatoes — to the Central Virginia Food Bank for people who would not normally have access to these fresh products," says Scherr. Through the farm-to-school program, the co-op contracts for regular weekly orders from a local school.

The future for local food is looking promising, thanks in part to the many hundreds of small grassroots efforts taking place in communities all over the country. Partnerships between private and public sectors play a huge role in the success of all these organizations. Understanding the intricate needs of all players in the local food system is mandatory for progress to be made. ■

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Financing Co-ops

Cooperatives have their own problems when it comes to finance. Equity is limited by their members' resources and willingness to support the co-op. And members' own enterprises compete for their capital with the cooperative.

Cooperatives need to assess what their members want and how much they are willing to finance. Alternative financing, including new-generation co-op capitalization, preferred stock, new laws to allow non-member capital, and others, offers promise, but also poses problems.

K. Charles Ling's study of dairy cooperative financing offers valuable insights into the problems and possible solutions of financing a cooperative today.



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