

Commentary

Local ownership of biofuel yields greatest benefit for rural America

Editor's note: The Institute for Local Self Reliance's mission is to provide innovative strategies, working models and timely information to support environmentally sound and equitable community development.



he history of biofuel production is one of local ownership found and then lost. After the early industry ascent and crash in the 1980s, and the resulting domination by wet mills owned by Archer Daniels Midland (ADM) into the early 1990s, a third era in the ethanol

industry emerged, with farmer-owned ethanol plants. Initially very small, these plants expanded as corn farmers profited from investing in a green business, for which they grew the feedstock and the fortunes of which rose as corn prices fell.

It was a symbiotic relationship, marrying renewable energy with agricultural and rural development policy and bringing significant economic benefits to the investing farmers and their communities.

Up until 2003, these plants owned by farmer cooperatives and LLCs were the mainstay of the industry. About half of all ethanol refineries and up to 80 percent of all new ethanol plants that year were majority farmer-owned.

Then, in 2006, a combination of rising oil prices and a rapid phase-out of ethanol's octane-enhancing alternative, MTBE, led to soaring profits in the ethanol industry, catching the eye of Wall Street. The entry of investment firms resulted in dramatic changes in the industry. Wall Street firms built large, absentee-owned ethanol plants with highly leveraged dollars.

These plants dissolved the traditional relationship between farmer and ethanol producer, erasing the hedge advantage where farmer-owned ethanol plants benefited if corn prices were low or high — and the connection between value-added agriculture industry and sustainable rural development. Wall Street, unlike farmers, was more interested in the short-term appreciation of its capital investment via quick sales of new plants, rather than long-term dividends from producing ethanol.

The entrance of Wall Street conferred one advantage, however. It brought the political power needed to pass an ambitious Renewable Fuel Standard that called for 15 billion gallons of corn ethanol by 2015 and for an entirely new cellulosic ethanol industry to produce at least 100 million gallons by 2010.

But at the beginning of 2009, plummeting oil prices and still relatively high corn prices curbed Wall Street enthusiasm

and led to a wave of acquisitions, industry concentration and plant closures. At the same time, federal incentives and mandates have attracted substantial investment in ethanol produced from new, non-food and cellulosic feedstock.

The time is right to redesign public policy to re-establish the intimate and beneficial linkage between energy and agricultural objectives that was present in the early years of this century. To achieve this, the federal government should redesign the federal biofuels incentive in the way Minnesota did 20 years ago.

Minnesota converted a pump credit similar to the present federal incentive into a direct production payment for each gallon produced by an in-state plant up to 15 million gallons a year. The incentive lasted 10 years. That policy intentionally fostered small-scale plants that lent themselves to farmer ownership. It also led to increased competition and innovation for many producers.

The current federal biofuel tax credit, unlike the Minnesota incentive, favors large-scale plants. Ethanol plants are increasingly large and the average size of an absentee-owned ethanol plant is twice that of a locally owned one: 62 million vs. 37 million gallons.

Most recently built plants have a capacity of 100 million gallons or more per year. The economies of scale in ethanol plants larger than 30 million gallons are very small and any cost reductions are unlikely to appear at the gas pump. In a report, "Rural Power," ILSR found these savings to be less than 6 cents per gallon.

Encouraging modest-scale production facilities will not raise prices at the pump, but it will encourage local ownership through cooperatives or other business forms and will dramatically increase the economic benefits generated in the communities in which the feedstock is cultivated or harvested.

Given two identically sized ethanol plants, a locally owned plant provides a 10- to 30-percent greater economic impact in its community than an absentee-owned plant. Unit price scales with size (to a point), but economic impact scales with local ownership.

The federal credit for biofuels should be redesigned to have two tiers: a higher direct payment to smaller, majority locally owned plants and a lower payment to absentee-owned larger plants commensurate with their social benefits.

> — By John Farrell, Research Associate Institute for Local Self Reliance (ILSR) ■

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Blueberry growers in Michigan say they view their cooperative not just as a home for their crop, but as a support system for members. Some of the global supply-chain marketing issues facing co-ops are examined, beginning on page 4. Photo Courtesy Wild Blueberry Growers of North America









Julie A. Hogeland, Ag Economist **USDA Rural Development**



Global market expansion is forcing cooperatives to draw upon historic strengths to resolve

contradictions and problems emerging from modern supply-chain marketing. One expectation associated with supplychain economics is that greater efficiency and coordination will result from reducing conflict within the supply chain. "A frictionless marketplace" will emerge from a smoothly functioning, logistically optimal supply chain in which partners share a common customer focus (Wysocki).

This idealistic, optimistic vision obscures how intense competition and even market failure remain persistent features of the marketplace, challenging cooperatives to protect their assets, producer-members and customers. Global retailers such as Tesco, Carrefour and Wal-Mart are battling for market share within China, India, South America and the privatizing economies of Russia and Eastern Europe. Projections from 2007 suggest that these emerging economies will grow three to five times faster than Europe, North America and Japan, according to Michigan State University Professor Thomas Reardon. Growth potential on this scale has triggered a competitive struggle Reardon regards as "fierce" — a struggle invariably with

cooperative ramifications, the topic of this article.

The August 2008 food-poisoning crisis in China, caused by the addition of melamine to milk supplies, profoundly impacted New Zealand dairy cooperative Fonterra, revealing some of the risks of being a "first mover" or early market entrant. Motivated to form a joint venture by the prospect of becoming China's leading dairy producer, Fonterra assumed a 43-percent ownership stake in Chinese milk distributor Sanlu in 2005.

The Chinese dairy industry was only partially industrialized, by Western standards. Agricultural norms, values and processes understood in a Western context did not come "packaged" along

with new processing technology. Squeezed by inflation and governmentimposed price limits, farmers realized the importance of reducing costs and maximizing profits. Less apparent within China was a clear understanding of industrialization's goal of meeting consumer needs even before they are articulated.

California co-ops initiate value-added strategy

Within the United States, Upton Sinclair's pro-socialist novel, "The Jungle," helped reform capitalism early in the 20th century by encouraging greater public awareness and accountability for food safety. The legacy of hacienda production — large, Spanish-influenced estates or plantations — enabled California to industrialize agriculture several decades before the rest of the United States. Hallmarks of industrialization — such as a business attitude toward farming, contract production, large-scale mechanized farming and organization for export markets — were evident by 1910 or 1920.

In 1923, California attorney Aaron

Sapiro drew the outline of the contemporary value-added cooperative by summarizing the attributes that made cooperatives, such as Sunkist, Sun-Maid and Sunsweet, successful. He saw cooperatives bringing order to chaotic markets by preserving a commodity so that it could be released on the market gradually, not dumped at harvest. Yet, Sapiro's market-driven emphasis — he did not consider a product marketed until it was actually sold — was not completely understood by farmers who pinched pennies to keep their farms going.

The Spartan outlook of economist Edwin Nourse resonated with such farmers. Why did so many cereal brands exist in 1922, Nourse asked. when he found that his own brand was perfectly adequate? He concluded that brand proliferation and advertising were opportunities for food manufacturers or middlemen to ladle monopolistic profits or surcharges on to the price of food.

Cooperative marketing — stripped of such excess and established on a straightforward, cost-of-service basis appeared to be more transparent and conducive to revealing a true supply-

> and-demanddetermined price. Other economists said that excessive marketing costs seemed to be the result of too many middlemen competing against each other at a time when farmers seemed to be getting less than their fair share of the retail dollar.

A culture of marketing conservatism was endorsed within the 1971 edition of "American Cooperation," which proposed that the introduction, promotion and advertising of so-called "new foods" did little more than add to the

cost of food. "There are really very few really new products, with frozen orange juice, instant mashed potatoes and now a new fried milk curd product being the only really new products," it said. Not until value-added potential emerged from Midwestern crops such as sugarbeets, grains (identitypreservation) and corn (ethanol) in the late 20th century did Midwestern producers (other than dairy or pork farmers) become as "market driven" as had California specialty crop producers some 50 years earlier.

This pattern suggests that values and norms emerge from a local context; it is difficult to import them from one context (e.g., the West or California) to another.

Technological and infrastructure requirements for rapid industrialization complicate the development of new values and behaviors when norms and standards cannot be transmitted or imposed from the "outside." During the melamine crisis, Chinese milk tests were unable to differentiate between chemical or man-made protein and natural amino acids. The Washington Post reported that dairy cows were new to Chinese farmers; they did not know how to feed and care for them (October 20, 2008).

In 2007, an economic team led by Dr. Jikum Huang concluded that the spot-market exchange routinely used by Chinese apple and grape growers did not generate the transaction trail necessary for a successful trace-back system. Contract marketing and extension services were practically nonexistent.

Market failure challenges

Another challenge for cooperatives is market failure: could it limit or render ineffective what cooperatives are doing? Market failure has been defined as market deviation from the ideal. Yet. "the new economic paradigm for agriculture accepts some imperfect competition [or market concentration] in the food and agriculture sector for the sake of economic efficiency, technological progress and rising living



standards" (Persaud and Tweeten 2002). For this reason, aligning the incentives between different components of the supply chain has perhaps been emphasized more as a collective marketing strategy in recent years than the potentially adversarial — but still traditional - cooperative role of correcting or compensating for market failure.

Nonetheless, both subtle and spectacular examples of market failure continue to exist. In May 2007, CHS President and CEO John Johnson told this writer that: "Emerging markets offer growth, but also significant risk because the sources of demand and supply are not clear." This comment seems prescient, considering the situation with

vulnerable producer groups. The burden of adjusting to agricultural industrialization fell hardest on small producers in the United States because they were the largest producer group for most of the 20th century. Small Chinese farmers will likely absorb the impact of the melamine crisis because it is easier to control or monitor a small number of large operations for food safety compared with the fragmented supply chain these producers represent.

Reardon anticipates that, as global retailers spearhead the process of consolidating, integrating and modernizing fragmented, traditional supply chains, they will develop private standards of product quality and safety. At this point, private standards mainly

compared with tighter export standards.

Co-ops can help build trust in marketplace

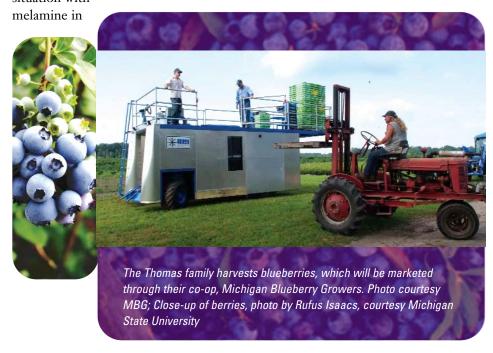
Fundamentally, Sapiro's orderly marketing norm facilitated producer trust in market exchange based on the kind of market knowledge - the commodity grades and standards developed by cooperatives — that have become the basis of contemporary food safety and security (Hogeland, forthcoming report). Contemporary consumers are not unlike the producers of the early 20th century who needed to know how their fruit was graded and how different grades compared in value before they could have confidence in the market. Lack of trust in market exchange causes significant economic underdevelopment, according to economist Kenneth Arrow. Cooperative norms or values can compensate for such mistrust and allow markets to develop.

Product identity standards protect consumers from fraudulent or deceptive practices; grades categorize commodities according to economically significant attributes. Both reduce the transaction costs of commodity markets. Reardon notes how grades and standards are emerging as a tool for product differentiation and market segmentation. Companies are now positioning themselves by product attributes.

Process-control technology now provides information on how product attributes and outcomes, such as calorie reduction or organic production, are biologically created and maintained in the sequence of production. The process begins with plant genetics, then cultural practices, inventory, handling and on through processing. The result is a more substantive basis for nutritional claims and food safety traceback programs.

Being innovative and a trend-setter is a particular focus of MBG Marketing, "The Blueberry People," 300-member cooperative headquartered in Grand Junction, Mich. As the world's largest

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China.

One of the consequences of the fierce competition among retailers is that suppliers may be "de-listed" for failing to provide the continuous leadership in market development and procurement demanded by the chains. This is an example of how Reardon expects long-term supplier bargaining power to decline as the chains become more concentrated.

Coming to terms with monopolistic elements in the economy is an important challenge for agricultural economies in transition and for

reflect produce size, color, blemishes (or other damage) and foreign matter, not necessarily safety concerns. Competition between supply chains based on private standards is expected to replace competition between individual firms.

Private standards compensate for spotty enforcement of public standards within emerging markets. For the burgeoning number of emerging market consumers with middle class incomes, private standards will resolve the inconsistency between loose standards for local consumption

Co-op not just a home, but a support system for members

Michigan Blueberry Growers' (MBG) membership of 300 producers represents a combination of both very small and very large growers. Director Allen Miles, a large grower, chose to become a MBG member because the cooperative was more cost-effective than using a broker or other sales force.

The cooperative operates on a cost-plus basis. MBG is not a "for profit" company, but is a "for

grower" company. MBG also guarantees that it will sell every blueberry a member produces — this is the cooperative as the proverbial "home for the growers' product."

"MBG is more than just a home, it's a support system!" stresses Director Pat Goin. She and her husband, members since 1980, represent small producers. "If you want to be a quality producer, MBG is interested in you," she says.

The cooperative fosters strong support from growers through a member horticultural program which Goin calls "phenomenal."
Rapid payout after harvest promotes enthusiastic member commitment to marketing their entire crop through the co-op. All members undergo an audit each year, choosing among a PRIMUS audit (requiring a crew trained in food safety and hygiene), a selfaudit, an MBG audit, a GlobalGAP (non-genetically modified organisms) for European export, and an AIG (or American Institute of Baking) audit. MBG approves processing facilities according to a "Process 2001" Program, which requires use of a Food Safety and Quality system.

By "providing a home for the growers' product," cooperatives risk excess inventory accumulation when markets mature or harvests are overabundant. Prolonged inventory carryover has undermined marketing boards that operated on a similar principle of storing product until prices rose.

American cooperatives have the option of restricting membership (closing the cooperative) when challenged by



Members of the Wassink family check their blueberry crop (top). Sunsweet's PlumSmart Light juice and Sunsweet Ones have proven popular with consumers.

oversupply or stimulating demand. Choosing the latter, Sunsweet recast prunes as a "candy-nutrient" by individually wrapping perfect, moist prunes in cellophane, making them a "snack-on-the-go" branded as "Sunsweet Ones." The product launch was supported by a \$500,000 Value-Added Producer Grant (VAPG) from USDA Rural Development.

In 2007, Sunsweet began

marketing a light, low-calorie version of its PlumSmart® juice product, aided by a \$300,000 VAPG from

USDA. PlumSmart Light is made from fresh prune plums which normally are less visually

appealing than the varieties grown for fresh markets. Made from fresh plums, PlumSmart Light is cost-efficient because growers avoid the expense of drying fruit.

PlumSweets — dark chocolate-coated prune bits introduced by Sunsweet in 2005 — are an imaginative product far removed from the stodgy compotes and stewed prunes of Nourse's day. PlumSweets satisfy a sweet craving and add an extra dose of nutrition through the reputed antioxidant power of dark chocolate.

Younger consumers are the target market for this product. Through "slicing and dicing" the market, as economist Joe Coffey used to say, the catch-all category of "consumers" can be mined to reveal highly specific attributes and wants. Sensitive to another category of consumers, Sunsweet introduced "60 Calorie Packs" in 2008. Both PlumSweets and the "60 Calorie Packs" received VAGP support from USDA.

Because the PlumSmart line represents pruneplums as snacks, nutrition-on-the-go, or food with specific nutritional claims, it requires advertising to

engage consumer attention and interest. These products cannot just sit on a shelf. New product development — making a market — is the contemporary justification for providing a home for the growers' product.

- By Julie Hogeland



Potato co-op achieving mission to bring some stability to market

By Stephen Thompson, **Assistant Editor**



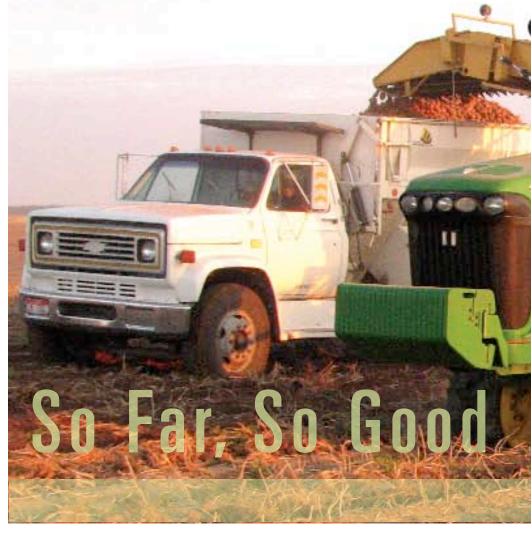
n the fourth anniversary of its founding, United Potato Growers of America is successfully

carrying out its mandate. It is protecting its growers from market volatility — not by focusing exclusively on restricting their production, but most importantly by giving them the information they need to make good decisions.

In 2004, potato farmers were facing a crisis. They were used to a rather unique way of doing business: an average of three out of five years they would lose money on their crops. Two of those years they'd make enough money to make up their losses and turn a profit.

Although it wasn't an ideal way to do business, many producers managed to prosper. But then things started to go south. Potato consumption fell, in part because of the popularity of low-carb diets. Prices fell, too. Potato farmers started looking for a way to stabilize the market.

The result was a new national growers' cooperative (featured in Rural Cooperatives in the March/April 2004 issue, shortly after it was formally organized at a meeting in Washington, D.C.). Idaho potato grower Albert Wada, the founding board chairman of the co-op, had started United Fresh Potato Growers of Idaho the year before. He thought the best remedy for the huge market fluctuations was to form a federation of state co-ops that



would work to better balance supply to demand.

Wada's idea was embodied in the "United We Stand" program, which sought to better target production for market demand much the same way U.S. dairy farmers have achieved. Central to the plan was improving communications regarding market conditions and local growing conditions between members and their state coops, and between the state organizations and the national cooperative.

Using the information gathered, the program called for withdrawing a calculated percentage of acreage from production, if necessary. If that didn't do the trick, the next step would be restricting harvests. To make the program work, the cooperative would need a "critical mass" of farmers in each potato-growing region of the country.

Substantial progress

Today, United Potato Growers has

succeeded in making potato growing profitable again, but it has managed to avoid taking formal post-planting actions to decrease supply. Instead, says current President and CEO Lee Frankel, most of its success is the result of educating growers to be better businessmen and giving them the market information they need to make the right decisions.

"Our plan has shifted from exclusively reducing acreage to defining the market," says Frankel.

Board Chairman Allan Floyd helped found the co-op's Pacific Northwest affiliate, United Fresh Potato Growers of Washington/Oregon. He puts it another way: "It used to be people just planted the crop and hoped for the best. Nobody knew what the total consumption of potatoes was."

Now, he says, for the first time growers have an accurate idea of supply and demand, and can choose how much to plant using that information. "We've all dropped acres, because we were just



growing too many potatoes," he says.

Key to the co-op's success is its ability to gather and analyze potato market information. This data is gathered from growers, government agencies (such as the USDA National Agricultural Statistics Service), potato shippers, the food industry and other sources. The national co-op then generates a market analysis.

Using these data and the analysis developed by the national co-op, members meet and decide informally on how many acres to plant that year.

Frankel says that some of the acreage reduction has come about through buyouts and mergers, some of which combine different customer bases and thus allow for more marketing flexibility. He notes that members of state co-ops sometimes informally trade planting "rights."

Gauging the market accurately

Having accurate market information also allows the co-op to use surpluses in

one area to fill needs in others. "Last fall we identified in advance an excess of red potatoes in one region," says Frankel. "We were able to find a home for those potatoes with other growers who had contractual obligations they needed to fill."

In some cases, delaying shipments to market by a week or two can make the difference between having an oversupply and getting a satisfactory price. At other times, when prices are low, members have access to additional data to help them determine if prices will be more favorable later, allowing farmers to reap profits.

The point is to ensure predictable income without wild pricing swings. Frankel says, "Our goal is normal profits, making sure prices are even. We want sustainable pricing levels."

The cooperative's effectiveness is enhanced by its continued growth. Membership in the affiliated regional co-ops keeps increasing, and recently farmers in Minnesota's Red River Valley

and in the Southwest came on board with their own affiliated co-ops.

There's still room for growth, however. "I guess the definition of 'critical mass' is different for everybody," says Floyd. "We're not as big as I'd like us to be, but we're getting bigger, and our members are happy."

Frankel says it is possible that an oversupply at some future time could require formally withdrawing product from the market, according to the original blueprint.

"We've had luck on our side for the last four years," he says. "The weather has cooperated in keeping things on the trend lines. We may get a year with 10percent higher yields, and then we'd have to fall back on other methods."

The current economic downturn may bring new challenges, too. But, he says, "So far, so good." ■



By Bruce J. Reynolds, Economist **USDA** Rural Development



usinesses of all sizes struggle to stay afloat during recessions, with some eventually having to close. But small, family-owned businesses can sometimes close even during good times for the general economy when the owner retires. Such closures can have a major, negative impact on a rural community.

Whether or not these businesses continue to operate after being sold may not be a primary concern to many retirees. If the owner's grown children are not interested in keeping the family business in operation, an outsider may purchase the enterprise and decide to cease the operations there. Typical buyers of small businesses are competitors seeking more customers and inventory. They may want to consolidate rather than increase their business locations.

A net loss for rural communities

Businesses that acquire other businesses will likely close the new operating locations they've acquired when the cost reduction of closure is larger than the expected loss in revenue. This result depends on serving the same customer base with fewer operating locations.

The acquiring business may even gain from closing operating locations that, prior to the acquisition, were economically self-sustaining. Yet, from the standpoint of the local economy, this benefit for a business from closing newly acquired locations is likely far outweighed by the costs of job losses and less convenient service for local customers.

In many rural areas the former employees of a closed business cannot find jobs without moving out of the area. For local customers in rural communities the closing of a business is often not merely a reduction in consumer choice, but a major inconvenience when it means having to travel much farther distances for shopping. If retiring owners care about the survival of the business they built, they can take preparatory steps to accomplish this result prior to their retirement.

Worker co-ops and ESOPs can help keep doors open when business owners retire

Succession planning

An alternative to selling small businesses to competitors is for owners to develop a succession plan as a component of their retirement plan.

When the owners' children are interested in keeping the family business, a relatively simple succession plan can be worked out. When their children or other family members are not interested, retiring owners often neglect to initiate the process of succession planning before they retire.

If owners want their business to survive but are considering a sale to non-family members, succession planning is more complex. The original owner and potential new owners (often the employees) must have a plan for management that will keep the business operated as effectively as it was under its former family-owners.

Some small business owners may not be aware of potential tax savings from selling their businesses to employees. A welldesigned succession plan is essential to transferring ownership to employees in a way that will qualify for tax savings.

1042 Rollover

Changes in federal tax laws in 1984 created a special incentive for owners who sell their company to its employees. Capital gains taxes on stock sold to employees can be deferred by using the sales proceeds to purchase stock in some other U.S. company. This opportunity for tax deferral on the sale of a business is dubbed the "1042 rollover." It creates an incentive for proprietors or owners in a closely held business to develop a succession plan of transferring ownership to their employees.

The 1042 rollover has been predominantly applied to ownership transfers under the terms of Employee Stock Ownership Plans (ESOPs). It has been infrequently applied to transferring ownership to worker cooperatives. One reason for this is that many cooperative incorporation statutes require 100-percent ownership by employees within a relatively brief period of transition.

Accomplishing a 100-percent purchase of a company by employees can take three to five years and be financially prohibitive. Whether organized as an ESOP or a worker cooperative, 30 percent of the stock must be purchased in the first year as the minimum amount to qualify for a 1042 rollover. But ownership by a worker cooperative as compared to an ESOP would require a larger loan, due to the 100percent equity requirement.

The ESOP is flexible in this regard because if outside investors own 70 percent of a company, they can gradually transfer more ownership to employees and take the tax deferral on all incremental sales transfers. However, ESOPs involve more administrative cost because of their regulatory linkage to the Employee Retirement Income Security Act (ERISA). Such costs include the appointment of a trustee to administer the reporting requirements for holding employee shares as part of their retirement plan and having an annual appraisal of the firm's value.

A worker cooperative is not subject to ERISA regulations, so it is a cost-effective form of ownership for businesses with relatively small employment and modest earnings.

Financing employee ownership

To be an employee-owned firm, a majority share of a company's stock must be held by the employees. The purchase of a sufficient amount of stock shares by employees to establish ownership and control of a business, whether organized as an ESOP or a worker cooperative, almost always depends on receiving a bank loan.

Lending to an ongoing concern for transferring ownership is usually less risky than a loan for a business start-up. Yet, a bank will consider the amount of debt the business is currently carrying and the effect of adding more with a new loan for the employee stock purchase. Another risk factor for the bank in making such a loan is how well the business will

function under employee ownership and control.

Business & Industry Loan Guarantees

USDA Rural Development is authorized to provide loan guarantees for lenders who finance infrastructure and business development under its Business and Industry (B&I) Guaranteed Loan Program (for more information, visit: www.rurdev.usda.gov/rbs/busp/b&i_gar.htm).

The general objective of this program is to improve the economy and quality of rural life. A B&I loan guarantee from USDA reduces a bank's risk to only 20 percent in the event of default on loans of \$5 million or less. When used for employee ownership of businesses with a solid track-record and sound plan for the future, this program saves jobs and improves commercial and retail services in rural America. Assisting a business that operates profitably in a given location to continue to operate after its owners put it up for sale fully meets the mission area objective.

Applying for a USDA B&I loan guarantee to support employee ownership can make many businesses more sustainable than they would be under a narrow ownership by a single entrepreneur. A more widely distributed ownership held by employees removes periodic discontinuity each time a major or single owner seeks an exit strategy for retirement.

A wide range in age distribution of employee-owners can stabilize a business from the standpoint of continuity in leadership, experience and critical skills as retirements periodically occur. Employees are highly motivated to keep a business going because their jobs are at stake.

As of early 2008, only two B&I loan guarantees had been made for employee ownership of a business. Both of these guarantees were made to transition two family-owned businesses into ESOPs. Both were provided by USDA Rural Development's Pennsylvania office. One was an electrician service company. The other is described in more detail below.

Doucette Industries Inc.

The term "small business" is defined as a business with less than 500 employees, which comprises a wide range of companies in terms of employment, but also in the volume of sales, assets and management complexity. Two examples of small businesses in rural communities with modest holdings of physical assets — one operating as an ESOP and the other as a worker cooperative — are profiled in Rural Cooperatives magazine, July/August 2007, pages 28-31 (past issues are online at: www.rurdev.usda.gov/rbs/pub/openmag.htm).

Employee-owned companies are also represented in industries with relatively complex manufacturing. Doucette Industries, Inc. is one example. It produces a range of standard and specialized heat exchangers for refrigeration and air conditioning applications. It was owned by one family until a program of employee stock purchase was started in 1993. In 2003, a complete ownership transfer to employees was made as an ESOP company.

Headquartered in York, Pa., Doucette Industries has added

a production location in Clearwater, Fla. It has 40 employees with annual sales that average between \$6 million and \$7 million. It provides customized heat exchanger development to meet very specific customer needs. In fact, Doucette serves customers throughout the world. Its website provides details on its capabilities and services (www.doucetteindustries.com).

Employee ownership in stages

Doucette Industries began succession planning in 1993 when it started a program for employee stock ownership. At that time, a father and two sons were sole owners. When it incorporated, company stock was divided into two classes, with voting shares of about 25 percent and 75 percent as non-voting stock.

The father held slightly more than 50 percent of the voting shares. As part of their compensation, in 1993 employees began to annually receive shares of non-voting stock.

By 2003, most of the non-voting stock, or about \$2.25 million worth, had been transferred to employees. To complete the ownership conversion to a 100-percent ESOP, \$750,000 in voting shares and an additional \$250,000 in non-voting stock needed to be purchased. Two separate bank loans to Doucette Industries were necessary to transfer that amount of stock. But banks usually require some type of personal guarantee on loans for the purchase of equity.

The USDA Rural Development office in Pennsylvania was contacted by Doucette Industries about financing the ownership transfer to avoid personal guarantees. After examining the company's financial condition and its earnings prospects for the future, USDA approved the B&I loan guarantee for the larger loan.

A bridge to new generations of ownership

The employees of Doucette Industries today have more control over their economic destiny because they have a voice in such decisions as job reductions or plant closure, as well as in more positive directions such as hiring and business expansion. Creating an ESOP at Doucette Industries was not only good for employees, but also made it feasible for the owners to defer taxes on capital gains from the sale of their business.

The transition of family-owned businesses to non-family members is often a far more financially difficult process than is the sale of firms with publicly traded stock. Rural communities also have fewer buyers for their businesses than those located in urban areas. In turn, a closure of a business in rural areas often results in population losses as unemployed workers may need to seek jobs elsewhere.

The Rural Development B&I loan guarantee program has potential to be an effective "bridge" for making it possible for workers to keep many family-founded businesses in operation for the future.

Utility Co-op Connection

Need for new baseload capacity, expanded transmission are huge challenges for RECs

By Anne Mayberry, Rural Utilities Programs USDA Rural Development



ural electric cooperative utilities will need to double generating capacity by 2020 due to current

and projected growth, according to a recent report issued by USDA Rural Development's Utilities Programs. The report, Rural Electric Power Generation and Capacity Expansion, notes that because of the significant lead time needed to add baseload capacity, many cooperatives are already behind the

Baseload is electricity generated 24 hours a day, seven days a week and fueled by coal, nuclear energy and, sometimes, natural gas.

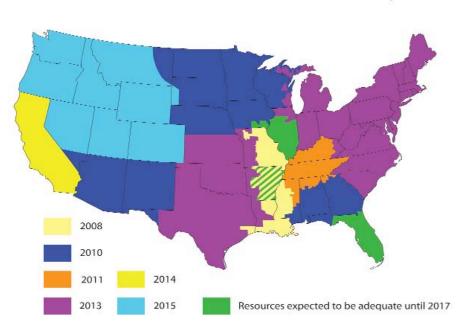
In addition to the need to add generation, the report sees lack of transmission capacity as another cause for concern. This is a key constraint in development of renewable energy resources in rural areas because the transmission grid, which delivers energy from points of generation to demand centers, is operating at capacity.

Peak demand climbing

Peak demand for electric power is expected to increase by more than 135,000 megawatts (MW), or 17.7 percent during the next 10 years. Capacity is projected to increase by only 77,000 MW, the report predicts.

Rural electric generation and transmission (G&T) cooperatives

Estimated Dates of Insufficient Electric Power Reserve Capacities



The North American Electric Reliability Corporation (NERC) anticipates that in many parts of the country, electric power capacity will drop below amounts recommended to meet reliability standards, beginning in 2008. The decline occurs initially in the South, the upper Midwest, and the Southwest. A 15 percent capacity reserve is considered desirable to avoid brownouts and blackouts in the event of unplanned outages caused by severe storms and other interruptions. (For more information on NERC's electric reliability estimates, visit www.nerc.com.)

generate approximately 5 percent of the nation's electric power. Recent surveys conducted by the National Rural Electric Cooperative Association indicate that a 10-year capital requirement of \$65.5 billion is needed to meet planned capacity. This includes \$49.9 billion for new generation, \$10 billion for transmission and \$3 billion for environmental requirements.

A number of factors have affected the ability of electric utilities to plan for future growth. These include: rising construction costs, legal challenges to environmental permits, uncertainty relating to carbon dioxide emission

limits and the inability of USDA Rural Development's electric program to fund baseload projects.

Noting that a balanced approach is necessary to maintain system reliability, sustain economic growth and allow time for development of new technologies, the USDA report says that a mix of strategies must be developed. The report's findings have been echoed by those of other industry organizations.

The Edison Electric Institute, a trade association representing for-profit electric utilities, released its own report in November. EEI notes that "all types

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Value-Added Corner

Family Farmers Seed Cooperative: Colorado co-op aims to meet growing need for organic seed



Family Farmer Seed Co-op

Editor's note: Value-Added Corner is compiled by Anne Todd. Contact her at: anne.todd@wdc.usda.gov.



amily Farmers Seed Cooperative was incorporated in March 2008. Based in Colorado Springs,

Colo., the co-op currently has four members: two farms in Colorado and one each in Washington and Oregon. According to Dan Hobbs, executive director of the Organic Seed Alliance

(which provides technical assistance to Family Farmers Seed), the co-op plans to use a \$120,000 Value-Added Producer Grant it received from USDA Rural Development to expand its membership.

Business objective

The Organic Trade Association reports that U.S. sales of organic food and beverages have grown from \$1 billion in 1990 to an estimated \$20 billion in 2007. Organic food and beverage sales are projected to reach

about \$23.6 billion in 2008. In 2006, organic products represented approximately 2.8 percent of overall annual food and beverage sales. Organics are one of the fastest-growing sectors of the food and beverage market, growing almost 21 percent during 2006 alone.

However, the organic seed supply needed to grow vegetables and other crops is in short supply. Family Farmers Seed Cooperative's goal is to help meet the demand for quality, certified-organic seed. The co-op says it "wants to increase the quantity and diversity of all



types of organic seeds."

USDA Value-Added Producer Grant Funding:

The \$120,000 grant from USDA will be used to develop a premium national market for specialty organic seeds to launch Family Farmers Seed Cooperative as a 100-percent producerowned business, and to help expand

mem-bership. The USDA grant is a matching grant, so the co-op has also received \$120,000 in funds from other backers, including Colorado State University.

Importance of USDA backing

"Dozens of large and small firms have begun to offer organic varieties, and we are beginning to see the

economic potential of the market, but are constrained by limits within the production system," says Hobbs. "Consequently, certified-organic produce farmers often have to revert to the use of conventional seeds." [Under USDA's National Organic Program, when organic seeds are not commercially available, farmers may use untreated, non-synthetic seeds and planting stock provided that other specific federal and local program conditions are met.] "This represents a significant and time-sensitive market opportunity for organized seed producer groups," Hobbs continues. "This funding provided by USDA Rural Development will be a great asset in the cooperative's endeavors."

Major challenge facing the co-op

According to co-op member Richard Pecoraro, co-owner of Longmont's Abbondanza Organic Seeds and Produce, the co-op is also promoting equipment sharing. Seed-cleaning equipment is very expensive and, therefore, it is difficult for small-scale producers to afford. Pecoraro and other co-op members will gain access to the needed equipment, which in turn will help increase their production of organic seeds.

Major opportunity

For the organic food market to continue its growth trends, more supplies of organic seed are needed. This new cooperative has the potential to help meet this need. The grant will help Family Farmers Seed Cooperative members improve their financial returns and will create job opportunities for agricultural producers, businesses and families.

Contact

For more information about Family Farmers Seed Cooperative or the organic seed industry outlook, contact: Daniel Hobbs, 20 Boulder Crescent, Suite 100, Colorado Springs, CO 80903; Phone: (719) 250-9835.

By Harry Cline

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Editor's note: this article is reprinted courtesy the Western Farm Press.



alcot is alive and financially sound.

However, the Bakersfield, Calif.-based, once-mighty cotton marketing cooperative is down to just one California cotton warehouse in operation and, for the first time in decades,

is shedding its corporate wings.

It's not just Calcot. The total U.S. cotton industry is struggling, and it was made painfully and locally evident in the reports of the chairman and president of Calcot at the cooperative's quartet of annual meetings in Bakersfield;

Calcot surviving in a floundering cotton industry

Glendale, Ariz.; and El Paso and Robstown, Texas.

At its peak, Calcot marketed 2.2 million bales of cotton, all from the San Joaquin Valley and Arizona. For the 2007-2008 crop, Calcot took delivery of a little less than 800,000 bales, and 55 percent of that came from Calcot's recent takeover of Southwest Irrigated Growers (SWIG) cotton in far west Texas and New Mexico, and the cooperative's foray into south Texas four years ago, where it continues to pick up acreage — 30,000 acres in the past year.

The cotton free-fall in California is not over yet, according to Kern County, Calif., cotton producer and Calcot Board Chairman Charles Fanucchi and cooperative President Bob Norris, who predicted San Joaquin Valley (SJV) acreage could fall to just 150,000 acres next year. At most, he said, it could reach 250,000 acres, which is still less than the 257,000 this season, the lowest SJV cotton acreage since 1934.

Norris said after the Bakersfield meeting that SJV upland acreage likely will not exceed 50,000 acres in 2009. The rest will be Pima, but how much will depend on the extra-long staple price and water availability.

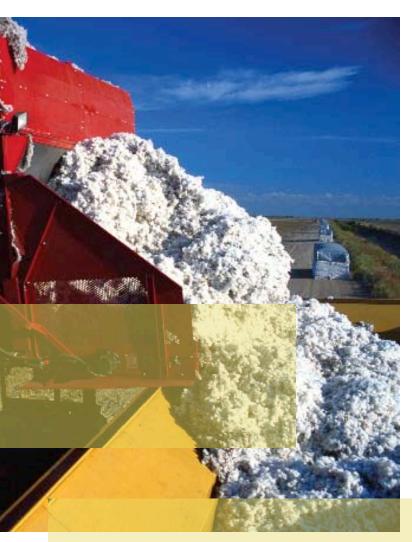
Fanucchi said the three looming, critical issues facing California agriculture for 2009 are "water, water, water." Cotton must compete with a cornucopia of other crops for a limited water supply as a result of a two-year drought and judicial rulings giving fish (rather than people and production of food and fiber) first rights to federal and state surface water supplies. The most recent prices for cotton have put it at or near the bottom of cropping option lists.



Fanucchi also announced the cooperative once again has punched a hole in its corporate belt to tighten per bale marketing costs. He said:

- Calcot continues to reduce its labor force and has frozen wages, which are 20 percent lower than last year. Some Calcot executives have voluntarily reduced their salaries.
- Calcot will close its Hanford warehouse when the 2007-2008 crop is sold out, leaving Bakersfield as its only warehouse location.
- Calcot has restructured its board, creating a 16-member executive committee to meet regularly to oversee the cooperative's business. The full 45-member board will now meet only three times per year rather than eight, as a costcutting measure. Board meetings may even shift to Phoenix and other more central locations, given that the cooperative's marketing area now stretches about 1,500 miles, from the northern San Joaquin Valley to south Texas.
- The cooperative's retains/revolving fund is being stretched from five to seven years to provide more stable footing to survive these hard times.
- The Calcot corporate aircraft was to be gone by mid-December. Fanucchi said it will be returned to GE credit.

"Times are as tough as I've seen in my lifetime," said Norris, who has logged more than four decades in the Western cotton business, all with Calcot.



Calcot Chairman Charles Fanucchi says the three looming, critical issues facing California agriculture for 2009 are: "water, water, water."

Calcot normally announces its final pool payments at late September annual meetings. Not this year. There were only meager progress payments. There is 2007 crop left to sell, and Norris said the pool likely will stay open to the end of the year.

Calcot is not alone. Half the U.S. crop is still not committed to a mill buyer. "This was not a season I want to repeat," Norris said, detailing a litany of train wrecks that characterized 2007-2008. This included steadily increasing U.S. production, coupled with falling exports during the season; failure once again for China to import what was projected; increasing production from India to fill markets normally served by U.S. cotton; a worldwide credit crunch and sluggish U.S. economy, resulting in slower sales.

The nail in the coffin came in February 2008, when supply-demand fundamentals suggested lower prices on cotton; however, prices skyrocketed. Norris did not take time to explain the complicated reasons why, but others have indicated it was due to index fund trading in commodities.

This upside-down fundamentals picture "brought sales and even inquiries to a halt," he says.

Margin calls drained cash from merchants and co-ops alike. One long-time merchant went out of business, according to Norris.

Calcot met its margin calls, but it tied up capital and halted progress payments.

Considering one disaster after another, Norris said it was an "accomplishment" for Calcot to weather the storms.

Norris told growers this marketing season there will be fewer bales to sell once again.

"I see our industry in California continuing to shrink," he

It is that way across the entire the U.S. Cotton Belt, where plantings totaled only 9.4 million acres compared to 15.3 million just two years ago.

"It is clear our industry is undergoing some very painful changes," says Norris.

Ever the optimist, Norris said the reduction in U.S. cotton supplies "can only help us work off very large stocks." It could reduce stocks from the 9.9 million bales going into this season to going out of 2008-2009 with just under 5 million bales, assuming USDA is right in its estimate of 14.5 million bales of exported U.S. cotton.

World cotton consumption continues to grow. There is a 12-million bale gap between world production and consumption.

> Weather in China, India and Pakistan has not been ideal, according to Norris. Those countries combined consume about 83 million bales, but produce 69 million bales. This should present good opportunities for U.S. sellers, noted Norris.

> SJV Pima acreage is also down sharply this season, but prices are still below what growers want this year and next. High prices are

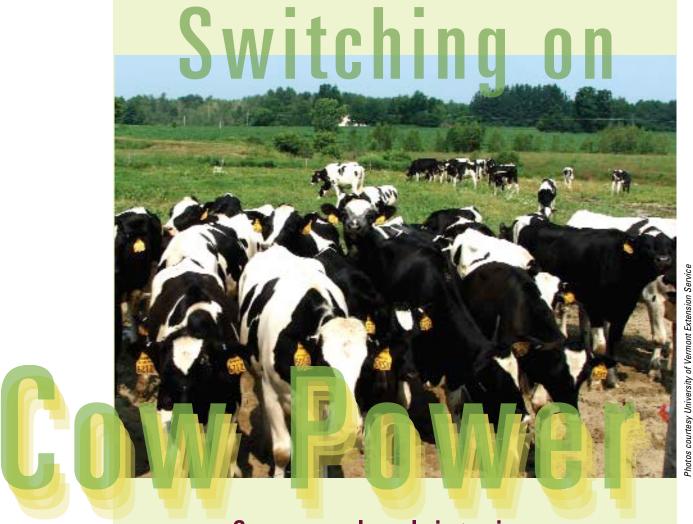
floating around, but no one is doing business at those prices, according to Norris.

"If growers can get a bio-engineered Pima variety, I do see Pima as having a future in the San Joaquin Valley," said Norris. There are genetic Pima varieties, but the problem is that they have not been approved in the international marketplace.

As for SJV upland, Norris says seed contracts may keep upland in the Valley.

Despite its cutbacks and plummeting acreage, Calcot is not in financial trouble, espouses Norris, adding that the cooperative has added 90,000 new acres in the past two years. Most of this has been from SWIG and South Texas.

Nevertheless, the U.S. cotton crisis is not over, according to Norris, who expects the economy to remain fragile into next year, "but I do think cotton prices will improve. I think we'll come through this current economic crisis and things will improve," he says. ■



Co-ops can play role in turning dairy waste into energy and byproducts

By Carolyn Liebrand, carolyn.liebrand@wdc.usda.gov K. Charles Ling, charles.ling@wdc.usda.gov

Editor's note: This article is based on Research Report 217, "Cooperative Approaches for Implementation of Dairy Manure Digesters," published by USDA Rural Development. This is the second of two articles relating to the use of anaerobic digestion of cow manure to produce renewable energy and other benefits. See "Carbon Credits for Farmers," page 10 of the November-December 2008 issue. (Back issues are online at: www.rurdev.usda.gov/rbs/pub/openmag.htm, or e-mail: dan.campbell@wdc.usda.gov to request a hard copy.)



airy operations across the nation routinely handle about 500 billion pounds of cow manure each year by collecting, storing and spreading it over the land. In large manure-storage structures, such as lagoons, little oxygen can dissolve into the mix, creating anaerobic (in the absence of oxygen) conditions. Certain microbes found naturally in manure feed on undigested materials in the manure and, as part of the digestion process, give off gas that contains 60 to 70 percent methane.

In recent years, several factors have converged to spark fresh interest among dairy farmers and others in anaerobic digestion systems. Economies of size in milk production have lead to an increase in the number of cows on the average dairy operation. This increased concentration of

cows has raised concern over environmental issues surrounding manure management.

At the same time, sharp increases in energy costs, along with concern over energy supplies, have spurred interest in renewable sources of energy. The current desire to reduce levels of carbon dioxide, methane and other so-called greenhouse gasses (gasses thought to cause an increase in the Earth's temperature) have also led federal, state and local governments to encourage farmer use of anaerobic technology.

Anaerobic digestion of manure

An anaerobic digester system provides a favorable environment (absence of oxygen, optimal temperature) for methane-producing bacteria to thrive and a means of capturing and collecting the biogas produced by the microbes as they digest (or decompose) the manure.

The biogas captured from the digester can be used for fuel in any equipment that normally uses propane or natural gas. These include boilers, heaters, chillers, internal combustion engines or gas turbines used for generating electricity. In addition, heat energy produced by these stationary engines running on biogas can also be captured and put to useful purposes. In some applications, it may be beneficial to the equipment to remove the hydrogen sulfide present in biogas (i.e., "clean" the gas) prior to use.

Alternatively, the biogas may be cleaned and conditioned (water and carbon dioxide removed and gas compressed) for sale to a commercial gas pipeline. Cleaned and compressed gas can be used in mobile engines configured to run on natural gas or similar fuel.

Furthermore, the methane in biogas captured from anaerobic digestion of dairy cow manure may be qualified to receive carbon credit if it is flared (burned off) or otherwise prevented from emitting into the atmosphere. The global warming potential of methane is equivalent to at least 21 times that of carbon dioxide. This means that preventing one unit of methane gas emission has the effect of reducing the amount of greenhouse gas emission equivalent to a reduction of 21 units of carbon dioxide.

The manure effluent leaving a digester, while not significantly reduced in volume, is biologically stabilized (meaning it is fully decomposed and the compounds contributing to manure's unpleasant odors are eliminated). The solids in the manure effluent can be separated, perhaps composted, and used in applications such as bedding for cattle, a soil amendment, or as a gardening product, such as potting soil. The remaining liquid effluent can be used to fertilize fields and crops, or even further fractionated into manure concentrate and "treated" water for discharge.

Economic impact on dairy farming

The net economic impact of installing an anaerobic digester on a dairy operation depends on the dairy's ability to use the biogas, digested solids and liquid effluent.

Utilization of the end products of manure digestion can lower the dairy operation's operating costs, add income from sales or provide a combination of avoided expenses and increased revenue. Some notable benefits of anaerobic digestion, such as the reduction of offensive odors and improved ease of manure management, are not easily quantifiable in terms of dollars and cents.

At the same time, capturing the benefits of anaerobic digestion will require additional expenses, such as purchase, operation and maintenance of equipment to use the biogas and to prepare the byproducts for use or sale, as well as increased management time and skill. The benefits and costs associated with anaerobic digestion of dairy cow manure that have been observed or predicted are identified in the table on page 20.

Whether the cost of an anaerobic digester is sufficiently offset by its benefits — both tangible and intangible depends upon each dairy's situation.

Obstacles

Lessons learned from previous efforts in producing biogas from manure resulted in improved design, operation, equipment and cost-effectiveness of anaerobic digestion systems. However, only 95 anaerobic digester projects that use dairy manure were identified by the U.S. Environmental Protection Agency in 2007.

While anaerobic digesters may not be appropriate for every dairy farm, these 95 projects represent a very small fraction of the nation's 59,000 licensed dairy herds.

The set of barriers to adoption are often unique to each producer's situation. The challenges reported by dairy producers using (or attempting to use) anaerobic digesters in their operations have included:

- Low rates paid by utilities for electricity generated by biogas-fueled generators;
- Difficulties connecting to the power grid;
- Difficulties adapting the anaerobic digester to a farm's existing manure system;
- Limited number of anaerobic digester system providers;
- Lack of information about anaerobic digesters;
- Added demand on a dairy farmer's time and new skills needed to manage the digester;
- Lack of ability to capture value from use or sale of byproducts;
- Difficulties in obtaining financing and/or funding for high digester capital costs.

A role for cooperatives?

A cooperative approach may be one way for dairy farmers to overcome obstacles to the successful use of anaerobic digesters. Dairy producers could take one of two basic approaches: 1) an existing dairy cooperative could provide services related to the adoption of anaerobic digester technology as a part of its member services, or 2) a group of



Possible benefits and associated costs from byproducts of anaerobic digestion of dairy manure

D. D. door	D 6"4"	0
By Product	Benefits	Costs
Electricity	Avoided electricity purchases	■ Electricity production equipment
	■ Electricity sales	Operating and maintenance
		Required upgrades to electrical systemSales negotiation, legal fees
Biomethane	■ Natural gas sales	■ Biogas collection
		Gas cleaning
		Storage/ transportation
Heat	■ Heat/hot water	Equipment, operating and maintenance
Digested solids	Avoided bedding purchases	Equipment, operating and maintenance
	■ Sales of separated solids	Sales negotiation and/or marketing
Carbon Credits	Sales	Aggregation fee
		Trading fee
		■ Verification costs
Fertilizer	Lower energy use in handling effluent	
	Avoided purchases	
	Flexibility in timing for land applicationImproved nutrient quality	
	Lower herbicide use	
	■ Sales	■ Sales negotiation and/or marketing
Environment	■ Reduced odor	
	Reduced water contamination risk	
	Avoided lawsuits	
	■ Pathogen reduction	
	Methane destruction/captureTipping fees — fees that firms may pay to	Substrate (organic wastes) management and
	dispose of their organic waste in a farmer's	negotiation
	digester, which also may boost the digester	
	biogas output.	
	biogas output.	

similarly situated dairy farmers could form a separate entity to address their specific needs.

The group effort may be more effective and efficient than each farmer facing the challenges of adopting anaerobic digester technology alone. Collective effort may enhance the economic feasibility of anaerobic digesters by lowering the installation and operating costs, increasing returns from energy and byproduct sales — or both — while allowing milk producers to remain focused on milk production.

Cooperation could be effective in several areas, such as: **Negotiation** — A cooperative may engage (either by

employment or by contract) experts to negotiate rates and terms of trade with utilities, digester suppliers, firms that wish to dispose their organic waste into the digester, and so forth. A group of dairy producers would have more market power to command favorable terms, or gain higher quality expertise at lower cost to address their specific needs, than they would if acting as individuals.

Services — A cooperative could hire or contract with technical experts to provide information, leads, analysis and expertise. This would allow members to avoid the full cost of finding and vetting such expertise. Services might include:

- Technical assistance in setting up and operating a digester and trouble-shooting problems so a producer does not have to "reinvent the wheel" to implement the technology.
- Digester management services, where a cooperative manages the members' anaerobic digesters and biogas utilization operations, leaving the farm operators free to focus on milk production.
- Back-up equipment: cooperatively owned biogas-utilization equipment that can be maintained and made available to members when their equipment is down for repairs or maintenance.
- Manure hauling service: if there is a centralized digester, a cooperative could provide manure and effluent shipping coordination and services (including attention to biosecurity issues related to manure transfer), relieving the members of the management burden. Members could share the cost of equipment for shipping manure to the central location.
- Financing information and/or grant management: a cooperative could provide grant management for its members, or, at minimum, provide information to both producers and bankers. A large existing cooperative may even be able to provide loans with favorable terms to producers wishing to install a digester.

Marketing — A cooperative could assist members in marketing products derived from anaerobic digestion (biogasfueled electricity, digested solids, liquid effluent fertilizer, natural gas and carbon credits). A cooperative could also research potential uses for digested solids and liquid effluent, develop standardized marketing materials and product guidelines, or assist utilities in developing and marketing "green energy" resulting from anaerobic digestion.

A group marketing effort would represent a larger volume than an individual dairy, which may increase marketing efficiencies and effectiveness, or even open up new marketing channels. Possibly, a cooperative could operate a common byproduct packaging and distribution venture for members located in close proximity.

Centralized Systems: Under certain circumstances, a group of closely located small- and medium-size dairy producers may be able to more effectively operate a common digester fed by member-farms' manure than if each member installs a digester on their own operation. The advantages of a centralized digester are that risk, capital costs, digester operating and maintenance responsibilities, as well as byproduct marketing, would be borne by the cooperative. However, transporting manure to a central location introduces the potential for pathogens to be transferred between farms.

Alternatively, producers in close proximity to a natural gas pipeline may be able to truck or pipe the biogas generated on their operations to a central gas clean-up and conditioning plant located at the pipeline insertion point. They could cooperatively own and operate the gas cleanup plant and perhaps even the transportation infrastructure for getting the



Energy	 Improved compensation for electricity produced Favorable terms for connecting to the electrical grid Natural gas marketing
Byproducts	 Technical guidance on utilizing digested solids and effluent on farm Marketing research & development for byproduct sales
System design	 Technical guidance for design/installation Negotiated prices for digester components/installation Provider screening
Management	 Technical guidance to boost biogas production Management assistance to reduce operating costs
Carbon Credits	Aggregation and tradingReduced fees

biogas to the plant.

The cooperative effort could be narrowly focused on one obstacle or one opportunity, or incorporate multiple functions. Alternatively, a cooperative could focus on one effort initially and gradually take on more functions as it builds on its successes.

Funding a cooperative

One way that a cooperative effort could be funded would be to charge a per-cow fee based on the number of milk cows on each member's operation. Alternatively, a cooperative could mark up prices and fees for its products and services to cover its cost of providing them. The farmers using the service or benefit should be the ones funding its availability.

As with the anaerobic digester technology itself, dairy producers will have to evaluate whether the benefits of acting together to address their needs in using a digester outweigh the costs.

The value of a cooperative effort depends upon its effectiveness in enabling members to increase net returns to anaerobic digestion. The sidebar (above) identifies five key areas where a cooperative effort may assist producers in capturing benefits from anaerobic digestion at lower cost.



"Once again, the partnership with American agriculture has proven its worth during this difficult time. As we have seen in the past, the plants that have a strong connection with farmers seem to be better able to withstand unpredictable market fluctuations. The fact is, agriculture remains the backbone of the ethanol industry. It's puzzling that many believe secondgeneration ethanol will be largely built by big businesses, not farmers. If history is any predictor of the future, not having the direct involvement of

By David Chesnick, Anthony Crooks, Alan Borst and Robin Robinson

Editor's note: Chesnick, Crooks and Borst are ag economists with USDA Rural Development; Robinson is special assistant to the administrator of Rural Business-Cooperative Programs.



merging cellulosic ethanol production technologies may hold great potential to expand the economic

assets owned by rural Americans. Cellulosic ethanol requires biomass

that may be produced in most rural areas. But will rural Americans be significant equity participants in the cellulosic future? What methods of financing will encourage rural participation?

The United States government is committed to increasing America's domestic supply of energy and to improving energy efficiency, as indicated by the following:

• The Advanced Energy Initiative was launched in 2006 to help "break America's dependence on foreign sources of energy." It included a national goal of replacing more than 75 percent of the nation's oil imports

- from the Middle East by 2025 by making greater use of "homegrown" renewable fuels with advanced technologies to make fuel ethanol from cellulosic biomass.
- The Energy Independence and Security Act of 2007 was aimed to help reduce America's dependence on oil by increasing the supply of alternative fuel sources. This is facilitated by setting a mandatory Renewable Fuel Standard (RFS), requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, and reducing U.S. demand for oil by setting a national fuel economy standard of 35 miles per



agriculture may be a fatally flawed path forward.

"Farmers need to be involved in building the next generation of ethanol plants. We should still be forming farmer-owned cooperatives. Time and time again, we have seen that these boards can provide the kind of intelligent and careful guidance that is needed to make plants successful during a wide variety of market conditions."

— Mike Bryan, Ethanol Producer Magazine January 2009

gallon by 2020 — which will increase fuel economy standards by 40 percent.

• The Food Conservation and Energy

Act of 2008 (Farm Bill) allocates \$1 billion to fund programs that augment renewable energy investments in technologies, new feedstocks and facilities. It includes: — Continuation of the Biomass Research and Development Program, with mandatory funding of \$118 million. This collaborative effort between USDA and the U.S. Department of Energy coordinates research and development to improve feedstock and biofuel

production efficiencies.

- The Biorefinery Assistance Program provides \$320 million in mandatory funding for loan guarantees to produce biofuels. Guarantees may cover 90 percent of a loan (these loans can be for up to 80 percent of project cost, or a maximum of \$250 million).
- The Rural Energy for America Program provides \$250 million in grants and loan guarantees to farmers and rural businesses for investing in renewable energy systems and energy efficiency. USDA is directed to fund and support expanding production of

advanced biofuels under the Bioenergy Program, with mandatory funding of \$300 million. Incentives are paid on increased production of biofuels developed from farm and forestry crops and waste materials.

A national mission to produce cellulosic ethanol on a commercial scale provides rural America with significant opportunities, as well as formidable challenges. Support for cellulosic ethanol is strong, and rural communities across the nation are especially capable of producing a wide variety of raw materials and other requirements for cellulosic ethanol.

At the same time, however, rural individuals and communities face substantial barriers to local ownership. Costs for these plants are very high, financing can be complex and there is a general lack of access to information and technologies.

Whether a sufficient number of rural Americans will acquire equity positions in businesses that will help sustain their communities, or whether their participation in value-added businesses remains limited, is a question critical to the future of rural America. How can rural residents move beyond servicing and/or working in ethanol plants toward leveraging of their resources into ownership stakes in cellulosic projects?

USDA study gauges rural opportunities

USDA Rural Development commissioned a team to analyze an array of business structures, programs and strategies appropriate to the resources of rural residents for financing cellulosic ethanol projects.

The study examines the cellulosic ethanol production from a technical, operational, geographical and financial standpoint, with the following objectives:

- To develop equity financing and securitization models appropriate for cellulosic ethanol projects and rural investors.
- To facilitate local investment in renewable energy projects and retention of returns from these investments within rural communities.
- To expand ownership opportunities.
- To encourage use of alternative approaches for collateralizing loans, unlocking under-utilized equity in rural areas.
- To map and monitor potential rural production activity, then compare it with likely rural investment resources under various financing models.
- To design the outlines of a program that could best support the equity financing of cellulosic ethanol production in rural communities, with graduated levels of government

financial involvement.

The technology for cellulosic ethanol may be better suited for the expansion and diffusion of local ownership than corn ethanol. Production may be smaller scale, suitable to a wide variety of crop feedstocks and, therefore, all regions of the nation. While the technology is evolving, progress suggests imminent gains in production and cost efficiencies.

The investment capacity of rural residents is substantial and relatively untapped. Local investors often tend to bring patient capital (investments with a longer payback timeframe) to the table — the type of funding typically required by emerging technologies or market development, such as cellulosic ethanol. They often view such investment not only as an avenue to increase personal wealth but as a way of supporting their communities.

Given the narrow range of industries in rural America, cellulosic ethanol production has the potential to revitalize rural communities. Adding a new business, such as ethanol production, to the existing local business market can bring new vitality to rural communities by attracting new residents seeking employment and former residents (who moved to find jobs) to return.

Ethanol production offers higher paying jobs, the type more often found in metro areas, such as accounting, engineering, administrative/management and marketing. As a result, the demand for infrastructure needs, such as transportation and utilities, will increase. This in turn fosters growth of non-farm and non-ethanol businesses by providing direct input to these businesses and attracting labor.

Farmer co-op role in cellulosic ethanol

Farmer-owners of a cooperative can participate in the profits of an ethanol plant through dividend payments. The distribution of payments represents additional income to the individual farmer-owners and their families. Further, these dollars turn over many

times in a local community or region. With absentee ownership, most dividends instead flow back to the corporate headquarters.

Some farmer cooperatives have already begun to invest in this sector. In November 2007, Central Minnesota Ethanol Partners — a joint venture between Central Minnesota Ethanol Co-op, SunOpta, and Bell Independent Power Corp. — signed a letter of intent for an engineering study and feasibility analysis to construct, own and operate a 10-million-gallon per year cellulosic ethanol plant. Initial plans call for the plant to be co-located with Central Minnesota Ethanol Co-op's existing 21.5-million-gallon ethanol plant in Little Falls, Minn. Each party owns one-third of the project.

The first feasibility study took approximately six months and examined fiber supply, fiber cost and availability, permitting issues, capital costs and variable costs.

The proposed plant would use locally obtained wood chips and combine SunOpta's conversion technology with Central Minnesota Ethanol Co-op's existing infrastructure, raw materials supply sources and operating experience. The objective of the second phase is to reduce capital and variable costs by 10 to 15 percent, as well as to get all permits in place.

In November 2008, Central Minnesota Cellulosic Ethanol Partners was awarded a Next Generation Energy grant of \$910,000 from the state of Minnesota.

In Centerview, Mo., 220 area farmers have invested in the Show Me Energy Cooperative. Their \$7 million facility has been operating since 2007. Their co-op collects and sorts plant waste from locally grown crops, which is then ground and pressurized into pellets. These cellulose pellets are then marketed as an alternative to natural gas and propane.

Show Me Energy is a major fuel supplier for local energy generation and home heating. Its cellulose could potentially be used as inputs for ethanol production, which have been part of the



cooperative's plans from the beginning.

Longer payback period likely

At this stage of evolution of cellulosic ethanol, there is a need for patient capital and an acceptance of lower return on investment. Ethanol can be viewed as a maturing market that no longer offers the high returns seen in the recent past. Although cellulose is a new source for ethanol production, the end product is the same as cornbased ethanol.

Therefore, those willing to invest in cellulosic ethanol will have to be willing to accept a lower rate of return early in the project. Cellulosic ethanol requires significant early-stage investment because it is a new method for producing ethanol with limited technology available for production. Additionally, there are no standardized cellulosic ethanol plant designs and few experienced managers. Longer time frames and intensive oversight are needed to develop a successful production company.

Patient capital will be needed to assist the cellulosic ethanol producer with developing and getting cellulosic ethanol ready for commercial production.

The payoff should come later, when production ramps up. The feedstock for these new cellulosic production facilities will be cheaper than for corn-based facilities, thus providing a higher return than in the early stage of production.

Advantages for rural investors

There are three major advantages for rural investors who participate in cellulosic ethanol production: 1) portfolio diversification; 2) dividend payments; 3) community revitalization.

A diversified portfolio is important to all investors because it minimizes risk exposure. If a cellulosic investment opportunity includes dividend payments, the payments will provide additional income to the rural investor. The additional income will be turned over in the local community and region, which should help revitalize a community. Additional demand for new product and services can lead to new investment opportunities and further community revitalization efforts.

Regions are unevenly endowed with resources, but virtually all have sufficient investment potential. Lowresource communities that are locked out of the current ethanol market may be able to take advantage of programs,

subsidies and supply chain opportunities for cellulosic ethanol production. Farmers and landowners control much of the equity in rural America, but nonfarm rural residents account for a significant and increasing amount of potential rural investment. Investment models therefore may need to combine both farmer and local non-farm investors.

The U.S. Census in 2006 indicated there is a potential of more than \$25 billion available for investing, based on non-metro income. Therefore, communities should be able to take advantage when the environmental requirements of cellulosic ethanol production become more exacting. Communities meeting the requirements should be wellpositioned for project investment and participation.

The economics of cellulosic ethanol production encourage local participation in equity financing. The opportunity for ownership in some cases may be stronger for other parts of the supply chain than for the cellulosic ethanol production facility. Information about exact production costs is scarce, but is expected to develop as various pilot demonstration facilities get underway.

There are several promising opportunities for increasing rural equity ownership of cellulosic ethanol. These opportunities employ a government debentures program, clean renewable energy bonds, flip models, lease structures, a renewable energy fund, tax credit models and custom harvesting (see sidebar).

The new financing mechanisms offer alternative strategies to increase rural equity in the cellulosic ethanol economy and provide rural investors and rural communities with opportunities to pool equity resources to either obtain an ownership position or participate in feedstock logistics. It is hoped that ultimately these new mechanisms will help to stimulate the local economy and diversify rural investment opportunities.

New financing mechanisms for renewable energy

New approaches to rural ownership aim to address the limitations of the traditional methods of equity financing. The five mechanisms listed here offer greater flexibility to potential investors. Moreover, they are more adaptable to alternative strategies for ownership, including minority positions in production, or equity in ancillary industries along the supply and marketing chains.

Rural Business Investment Program

Congress established the Rural Business Investment Program (RBIP) in the 2002 Farm Bill to promote economic development and generate income and job opportunities in rural regions by encouraging venture capital investments in smaller enterprises and by meeting the equity capital needs of such businesses. RBIP is funded through USDA's Commodity Credit Corporation.

The program licenses Rural Business Investment Companies (RBIC) through a competitive process. It allows for a 3-to-1 leverage of private capital through the use of federally guaranteed discounted debentures.

For every dollar of private capital raised by a licensed RBIC, the RBIC can leverage three borrowed dollars, which USDA guarantees. The debentures are discounted because five years of interest is deducted on a pre-paid basis, enabling the net proceeds to be invested as equity (because there is no need to generate current income to service interest payments).

Flip Model

The ownership flip structure was originally developed in Minnesota to help an individual farmer to finance a utility-scale wind turbine. Such projects require a large amount of investment capital, but the average rural landowner lacks a sufficient tax liability to fully capture the related federal tax benefits, including both the Production Tax Credit (PTC) and accelerated depreciation. It is thus unlikely that most individuals could develop such a project on their own.

Passive loss restrictions and at-risk rules further contribute to the difficulty in individuals fully capturing the full value of these tax benefits. Some farmers have overcome this problem by partnering with outside, taxmotivated equity investors.

Through such a co-ownership arrangement, the farmer will have the needed capital and the outside investors will be able to fully capture all the tax advantages. The partners have typically organized their wind project as a limited liability company (LLC) because of its comparative advantages over other forms of business organization.

The outside investor will control the majority of the LLC, while the farmer has a minority ownership. After the Federal Protection Tax Credit (PTC) for Renewable Energy and depreciation are fully used by the outside investor, the ownership will flip to the farmer, who then becomes the majority investor, while the outside investor owns a minority stake in the LLC.

The LLC form of business allows these partners to use a tax structure favorable to taking advantage of the production tax credits. It also allows the financial and governance rights for the project to be split among the landowners, developer and the equity investor.

Lease/Custom **Harvest Structures**

Ethanol is currently produced mostly from sugars or starches derived from fruits and grains. In contrast, cellulosic ethanol is obtained from cellulose, the main component of wood, straw and most plants. Since cellulose cannot be digested by humans, the production of cellulose does not compete with the productions of food. Additionally, since cellulose is the main component of plants, the entire plant can be harvested. The raw material is plentiful. Cellulose is present in every plant: straw, grass, wood. Most of these "bio-mass" products are currently discarded or reside on cropland.

Although waste biomass will make a substantial contribution towards large-scale cellulosic ethanol



production, waste biomass alone cannot serve as the only source of raw material supply. The big question is whether American agricultural systems can support large-scale cellulosic ethanol production. Several studies indicate that it is possible.

According to the "Near Term U.S. Biomass Potential" report, dedicated energy crops would be required for large-scale ethanol production from cellulosic biomass. There are regions within the United States where cellulosic biomass, such as switchgrass, can be produced to support large-scale facilities. Landowners and ag producers within these regions will have the opportunity to participate and to take ownership of the cellulosic ethanol market.

For landowners with limited ag production experience and/or financial resources, lease or custom harvest structures can be used to generate equity capital. The landowner would lease land to an ag-producer to grow cellulose crops or hire a custom harvester to harvest the crops. Revenues from the rental payments can be used to finance a cellulosic ethanol facility.

For the custom harvest, the landowner would hire those with special equipment to harvest the switchgrass or clean up the field of wheat straw or corn stover. In the case of forest land, the landowner would hire someone to thin the wood on CRP land. This model can be used to promote participation from Native American tribes, lowincome rural communities, and Conservation Reserve Program (CRP) participants.

Renewable Energy Fund

The creation of a Renewable Energy Fund would eliminate the need for multiple equity drives and address the equity barrier for rural investors. Pooling equity capital within rural communities will ensure that rural residents own a share of cellulosic ethanol production capacity in the future. Investment would be limited to individual farmers, legal entities that own or manage family farms and other individual investors living in rural areas. There is about \$26.8 billion of farm and non-farm

income available for investment within rural communities.

The cost of establishing an investment fund can vary, depending on how the fund is set up. The least expensive approach would be to establish an equity fund. However, there are several factors which make this approach somewhat problematic.

If the fund is going to be a public offering, or at least catered to a general audience, the cost could be substantial. For example, cost for a direct public offering would include legal, auditing and filing fees as well as printing, advertising, strategic coordination, and marketing. These fees and expenses can be as high as 8 percent of total estimated offering.

Clean Renewable Energy Bonds (CREB)

The Federal Production Tax Credit (PTC) has been the major method of financing for renewable energy projects since it was established in the early 1990s. The PTC, however, was designed to benefit larger investor-owned utilities and to attract their capital into the renewable energy marketplace. Non-profit electric utilities provide about 25 percent of the nation's electricity. Their taxexempt status makes them ineligible for the PTC.

The National Rural Electric Cooperative Association (NRECA) proposed that a "clean energy bond" be created to establish an incentive for nonprofit electric utilities that comparable in scope to the PTC. The CREB program was modeled after the Qualified Zone Academy Bond program, enacted in 1998 to provide tax incentives for the rehabilitation of public school buildings.

The Clean Renewable Energy Bond (CREB) program is a new tax incentive authorized in the Energy Policy Act of 2005. It is currently available to municipal utilities and rural electric cooperatives and is designed to promote renewable energy investment and development. The CREB program provides these nonprofit utilities with interest-free loans for financing qualified renewable energy projects.



Farmer Co-op Conference eyes strategies for doing business in volatile marketplace

Inside the Upstate Niagara Cooperative dairy plant in New York, created through a merger of two co-ops to provide strategic growth opportunities. Photo Courtesy Upstate Niagara

By Lynn Pitman,

University of Wisconsin Center for Co-ops

Editor's note: Conference presentations are available on the University of Wisconsin Center for Cooperatives website: http://uwcc.wisc.edu/farmercoops08/program.



quity and capital management issues continue to drive major strategic decisionmaking by today's farmer cooperatives. Against a backdrop of volatile markets and global competition, cooperatives must develop

strategies that balance growth imperatives against risk and supply chain cost management. More than 170 cooperative board members, CEOs and others doing business with agricultural cooperatives gathered in St. Paul, Minn., in November to discuss "Cooperative Strategy, Structure and Finance" at the 11th annual Farmer Cooperatives Conference, organized by the University of Wisconsin Center for Cooperatives.

Elements of a successful merger

Upstate Farms Cooperative and Niagara Milk Producers Cooperative Inc. had discussed a merger in the past. As

value-added marketers of raw milk, both shared a similar orientation toward product and quality, and both co-ops operated in the same geographic area. Both were member/owners of O-AT-KA Milk Products Coooperative, which was created to guarantee markets for member milk.

Their decision in 2006 to form Upstate Niagara Cooperative Inc. was a win-win decision for both co-ops, said Dan Wolf, president of the board of the new cooperative. The merger provided an effective way to achieve operational consolidations, and has provided strategic growth opportunities that position the cooperative favorably for the

Similar earnings and member benefits meant that there was no need to adjust member equity shares in the merged cooperative. A board representation proposal that integrated the boards and the delegate structure from Upstate is in the process of being phased in. The merger included 90 percent ownership of O-AT-KA, which continues to provide market security by guaranteeing markets and providing value-added products.

Strategy formulation and risk

Michael Boland, a professor at Kansas State University, reviewed the process that underlies any effective corporate strategic plan. Strategies are not just ratified by the board, but should be formulated in concert with a general manager or CEO.

Boland differentiated strategic planning — which relies on an analysis of the parts of business — from strategic thinking, which is a synthetic process of seeing the big picture. A strategic perspective can exist on multiple levels, from a conceptual perspective of the business, to its pattern of conducting business over time, to its position in the market, to strategic action plans to achieve an objective.

Landmark Service Cooperative CEO Larry Swalheim and Board Chairman John Blaska presented the strategic planning and risk assessment process that allows Landmark to meet short- and long-term goals. Key assignments made during the co-op's annual strategic planning retreat help focus management on top strategic initiatives. Verity Resources, a joint venture created with AgQuest to provide in-house producer financing, is another result of the past year's strategic goal setting.

At Landmark, board committee meetings are effectively used to push the strategic agenda forward, and are not simply opportunities for division managers to "lobby for cash." The equity committee ensures that the program is synchronized with the long-term capital needs of the cooperative.

An internal audit committee has been formed to ensure the identification, reporting and management of risk. Regular risk management reports in eight different areas are used to assess risk exposure; these reports mean that the board knows exactly what its exposure is.

This framework has allowed Landmark to move quickly on new opportunities as they arise. The cooperative was able to move quickly — in just three months last year — to forge a merger with Grand River Cooperative. Both Blaska and Swalheim agreed that it is strong and effective communication between the board and management that allows this framework to operate.

Strategies for maintaining co-op competiveness

Sunkist President and CEO Tim Lindgren and Board Chairman Nicholas Bozick also discussed the need for good communications between the board and management. Lindgren noted that Sunkist uses committee work and places emphasis on teamwork to avoid close, divisive votes.

Sunkist has undertaken a variety of strategic initiatives to maintain its competitive position and to improve returns to its members. Today, Sunkist's extensive marketing network supports a widely recognized brand.

The co-op's global licensing program and other nonpatronage-sourced business generate significant unallocated retained earnings that supply the majority of Sunkist's equity needs. This allows the cooperative to revolve member equity out on a 5-year plan.

Sunkist has undertaken several initiatives to meet buyer demand and to achieve operating efficiencies with its facilities. Sunkist Global LLC sources counter-seasonal,

complementary non-member fruit. Sunkist/Taylor markets fresh, pre-cut fruits and vegetables. A freeze in 2007 provided an opportunity to consolidate processing operations into two plants that can meet the changing product demands of the Sunkist customer.

Bob Broekelman, vice president for recruitment and selection at FCCServices Inc., pointed to the looming retirement of the baby-boomer demographic as another risk that cooperatives must develop strategies to manage. This group will be difficult to replace, given the next generation's smaller number and the dwindling number of those with a background in agriculture.

He discussed "Gen Y" the group now entering the workforce for the first time, and how to recruit and retain this future generation of workers.

Strategies for turbulent times

Amy Gales, central region president with CoBank, outlined strategic guidelines that cooperatives might adopt in these turbulent times. In her succinct review of the current financial crisis leading up to the present situation, Gales noted that the losses of \$1 trillion have pulled \$10 trillion from the market, and the global de-leveraging has led to a crisis of liquidity, capital and confidence.

Commercial banks have responded to current credit market conditions by pricing to risk. There has been a flight to quality and a reluctance to extend new credit, although the first quarter of next year may see a freeing up of credit if the market begins to settles down, she said.

Farm credit institutions are positioned with quality portfolios oriented to longer-term growth instead of quicker, higher — and more risky — returns. These institutions are reserving their liquidity for core borrowers, Gales said.

As a government-sponsored entity (GSE), CoBank continues to balance its mission with sound lending practices, although it is not immune from the current situation, she noted. As interest rates continue to rise, loan structures will be more important. Increasing need for credit will make market partners more difficult to find.

Gales offered a "Top 10" list of strategies that cooperatives can adopt to cope with a volatile financial landscape. She noted that "cash is king" in times like these, and it is important to improve working capital and manage debt so that resources are available for inevitable bumps in the road.

To maintain a strong emphasis on profit, there can be no "sacred cows," she stressed, and a cooperative must be willing to act when margin objectives are met. Refining short-term and long-term planning by understanding the cost of doing business is another useful strategic focus.

Leverage is good, but only up to a point: the 1980s were an example of what happens when highly leveraged farming is faced with asset devaluation. Capital expenditures should be made with an understanding of where they fit in on the planning timeline, and preferably should be made without the money to back them up.

Managing the day-to-day financial operations — cash flow and accounts receivable — brings benefits as well, Gales said.

Risk management is an increasingly critical piece of cooperative strategy, and new levels of procedures and controls to manage price risk must be implemented. Expertise is now more important than ever, and a CEO/CFO strategic perspective, rather than a GM/Controller operational perspective, can prepare a cooperative for future challenges, Gales said. A board that really understands its responsibilities and adds value to the organization can bring another crucial perspective.

Effective communications with all stakeholders, both internally and externally, makes strategic implementation possible. While these are economically challenging times, Gales reminded the conference that there would be many opportunities for those that were watching for them.

Managing supply-chain risk

Bruce Vernon, vice president of marketing for MKC, and Cheryl Schmura, vice president of crop nutrients for CHS Inc., examined the substantial challenges of managing risk in today's fertilizer-supply chain. Vernon described the sometimes discontinuous relationship between inputs and corn, and the substantial fluctuations in both.

Former correlations in prices between inputs and natural gas are not holding firm. The impact of global competition is profound. Cooperatives now face volatile supply and demand pricing, rather than one grounded in production costs, and a more uncertain supply.

Regardless of recent price volatility, said Vernon, the cooperative must assume some measure of risk to service its customers. To mitigate the risk, MKC is stressing reciprocity on the part of both cooperative and customer: the buying and selling of grain is linked to the buying and selling of inputs.

Schmura described how a complex interplay of factors, including equity market and dollar valuations, a decline in the skyrocketing price for grain and fertilizer, foreign trade tariffs, weather events, and collapsing freight rates, has contributed to an overall market situation in which market players have lost trust in one another.

Smoothing out the extreme ups and downs of the fertilizer-supply chain is a challenge. Farmers are hesitant to place orders in a volatile market, and cooperatives can't assume the risk by importing product without customer orders in place.

The lack of demand has hampered movement in the supply chain that would free up inventory space, allow dollar averaging on the value of existing inventory, and support new production and imports. Next spring may see stresses on the

Cooperatives can address supply risk by finding partners with multiple sourcing options, having a good relationship with a bank, and planning based on "what-if" scenarios. Price risk can be managed by locking in margin and not letting greed take over the decisionmaking process. A good cash

position and reputable partners can support cooperative performance.

Changes in cooperative business structures

Several case studies looked at the structural changes that agricultural cooperatives have adopted to meet particular challenges. Brian Henehan, senior extension associate at Cornell University, and Kevin Murphy, Pro-Fac Cooperative's vice president of member relations, discussed how Pro-Fac has strategically repositioned itself several times in response to changing market conditions. Pro-Fac has used innovations like transferable delivery rights, multicommodity pools, and equity conversion to publicly traded securities to create liquidity for member investment.

Murray Fulton, a professor at the University of Saskatchewan, provided a cautionary tale about the need for monitoring and oversight in his description of the events leading up to the conversion of the Saskatchewan Wheat Pool in 2005 to a business corporation. Overconfidence by senior management and the lack of effective oversight by the board of directors led to major investment strategies that increased long-term debt five-fold over three years.

Substantial internal funds from the 1996 IPO meant that new ventures were not subject to the more dispassionate analysis of outside equity markets. SWP's aggressive new business strategies ultimately failed, which led to the loss of its cooperative status.

Marvin Wiens, former board chairman of the Saskatchewan Wheat Pool, provided his perspective as a board member during that time. He resigned in 2004, when both board and management agreed that SWP could not longer survive as a cooperative. He cited these reasons for this action: the board did not persist with hard questions and exert financial control; the cooperative did not work to maintain member loyalty during a competitive period; and they lacked a shared vision.

Clarifying the objective of a strategic initiative — to manage risk, share investment cost or provide market entry — will aid in determining the structure to be used, said Gregory McKee, professor at North Dakota State University.

The North American Bison Cooperative chose to form an alliance with North Dakota Natural Beef LLC (NDNB) after it declared bankruptcy in 2005, to re-establish itself in the market. Dieter Pape, who is the CEO and general manager of both firms, described how the cooperative, formed in the 1990s, built a processing plant, but encountered severe financial problems because the market for bison had not been adequately developed.

The alliance with NDNB has provided the co-op with needed marketing expertise as well as cost efficiencies. The cooperative began paying patronage refunds for the first time in 2007. A strategic alliance with North Dakota State University has also provided NDNB with resources to differentiate its products, a key advantage of a new market entry.

Back to basics

David Barton, professor at Kansas State University, provided a comprehensive review of the principles and practices of cooperative finance. While profitability is absolutely critical to success, a focus on services to members and patrons is still required.

Barton recommended that cooperatives consider replacing traditional, qualified patronage distributions with nonqualified ones, and that they practice strict balancesheet management and use a base-capital redemption program.

Chris Peterson, professor at Michigan State University, stressed that the goal of cooperative finance decisions is to deliver the cooperative's value proposition and to ensure that the cooperative can maintain operations, make investments and pay members appropriate returns. The total profit in the system, on both the cooperative level and member level, must be considered when assessing cooperative performance and making investment decisions.

Peterson noted that a recent National Council of Farmer Cooperatives study showed that those cooperatives that can respond to changes in the marketplace continue to do well, and that the cooperative model had not prohibited them from finding creative ways to raise capital.

Strategies for capital and equity

Central Valley Ag Cooperative (CVA) faced a complex set of equity management issues that it assumed in a series of mergers. Doug Derscheid, CEO of CVA, described how the cooperative has worked to create a fair and equitable approach for dividing the total redemption budget between simplified equity classes.

CVA is moving toward a revolving equity fund by using nonqualified retained patronage refunds to pay down equity debt, and cautiously using unallocated retained earnings to contribute to capital reserves.

The leveraged balance sheet of the recent past, with only adequate working capital, will not work in today's economic climate, said Tom Houser, vice president of Agribusiness Banking Group at CoBank. Higher levels of operating capital will be needed to manage the risk associated with record grain prices and crops' input costs.

Cooperatives face several challenges in establishing permanent capital. Many members see cooperative profitability translating to member loss.

But permanently retaining more equity can position the co-op to revolve the allocated equity more quickly. While there is a common mindset that equates a tax on cooperative income as a negative, a co-op tax liability may benefit the member in the long run.

Legal perspectives on strategic planning and capital management issues were provided by attorneys Mark Hanson, Stoel Rives LLP, David Swanson, Dorsey & Whitney LLP, and Michael Weaver, Lindquist and Vennum







Speakers who addressed the Farmer Cooperative Conference in St. Paul included (clockwise from upper left) Tom Houser, vice president of the AgriBanking group at CoBank; Marvin Weins, former chairman of the Saskatchewan Wheat Pool; Cheryl Schmura, vice president for crop nutrients

at CHS Inc. Photos courtesy University of Wisconsin Center for Co-ops

PLLP. Swanson suggested that a long-term contractual relationship is better than a transactional arrangement when times are tough, but warned against assuming that a contract party is solvent.

Hanson encouraged cooperatives to review their business operations to minimize capital needs while adjusting equity programs to build a permanent capital base to address capital risks. Weaver discussed the need for cooperatives to recapitalize, given the aging of both assets and patrons.

Former owners may be a source of outside capital. Another approach to build equity was the use of an unqualified per unit retain, which acts as a pretax contribution to capital, as opposed to the nonqualified allocation.

Michael Cook, professor at the University of Missouri, provided an insightful wrap-up to the conference, noting that the risk and volatility that characterizes the current economic landscape was part of every presentation. He summarized the questions that every strategic analysis should address: What is the arena of business operations? What vehicles are used to achieve success in that arena? How does the cooperative differentiate itself with patrons and suppliers? What is the timing and staging of business activities? Is there economic logic to support these answers?

Strategic thinking must also take the behavior of others, especially rivals, into account, he noted. Furthermore, the structures used to carry out business strategies are not neutral regarding benefits and distributions, and ownership and control. The board has a critical role in considering all of these questions.

News that Gets Used



Media tips and 'war stories' abound at CCA news release roundtable

By Dan Campbell, Editor



s "big sister" watching when you read press releases and publications sent to your e-mail

box? Quite possibly.

One cooperative communicator says she uses a web-based delivery service that enables her to see who opens the attachments being sent, and even what pages they read. Her comments were made during an idea-sharing roundtable on news release strategies held last summer at the Cooperative Communicators Association (CCA) annual institute in Portland, Maine. Other ideasharing roundtables focused on strategies for co-op advertising, employee and member communications and website management.

Many CCA members say they are using (and largely pleased with) news services to distribute their press releases and to track their use. Regardless of whether they still handle their own distribution or use a media service, a big majority of CCAers who participated in the roundtable said e-mail is their workhorse for getting news releases out, although a few members said they also still use the mail and fax.

With e-mail comes a big added advantage of being able to easily attach a photo, which one "consumer" of press releases said greatly increases the odds he will use a press release.

Others raised the issue that a print-quality photo attachment might make the overall file too large for small-capacity e-mail boxes. They instead prefer to simply add a "Photo Available on Request" note

by their contact information. Some include a web link to a page where media can download a choice of print-quality photos (usually a jpg file of about 300 dpi at three inches

Free advertising or news?

Roundtable participants were reminded that the judge who evaluated the press release entries for the previous year's CCA communications contest was critical of the fact that so many of the entries lacked legitimate news value, and were really "just attempts to nab some free advertising."

Some CCA members responded that they do indeed use press releases for that purpose, but said there is a legitimate business news aspect to announcing new products and services, etc. They reported getting fairly good pickup on these types of releases, especially by smaller papers and trade publications.

Still, the concern was raised that — like the boy who cried "wolf" — a co-op that issues too many press releases of limited news value might run the risk of getting ignored when it does have a release with important news.

Several others noted the opposite problem: being told by papers in their trade area that a press release with very legitimate news value would have to be run as a paid advertisement.

Some CCAers said they feel pressure to issue a certain quota of press releases, even when real news is lacking, while others said they think their co-op is too reluctant to issue press releases and should be doing more.

Targeting news releases

For large co-ops that operate over a wide region, it is best to target press releases so that those with broad interest go out on a general media list, while those that have a mostly local appeal are sent only to appropriate local media. An example of the latter would be a scholarship awarded by the co-op, which will probably have little interest outside the winner's hometown paper or radio station.

"Local newspapers in our area will use anything local," one CCAer remarked. "A lot of times they need fillers and are glad to use something 'soft,' like us making a donation to a local charity or school.'

Likewise, announcing a new feed division manager may be of interest to the trade press, but not hold much interest for the general media.

CCA members also commented on:

• Optimal length for a press release is about one to one and a half pages, most felt. "Don't write an epistle — less is more with a press release," one member said. Another commented that "pages" become irrelevant with e-mail. Still another raised the possibility of attaching both a condensed, one-page version and a longer version (for something like annual meeting highlights).

- Reaction was mixed on making followup calls to reporters to see if a press release was received. One member reported getting good results with such calls, but several others said the practice is a definite "turn off" for editors and reporters, one even calling it "deadly."
- Making calls to media at least once a year to keep your distribution lists current is a must, several members stressed. A number of media services can provide current lists, "but the service is a little pricey," another remarked. Some CCAers said they strive to update media lists with current names of editors and reporters, but others said they keep addresses generic (e.g., "Business Editor") because staff changes occur so often in the media that it is hard to keep up.
- One member said that whenever he visits one of the co-op's plants, he drops by local media offices with an information packet that contains the co-op's latest annual report, fact sheet and contact list, photo disc, recent news releases and press clippings. "It's a good door opener," he said.
- When bad news happens, don't wait until forced to issue a press release, most CCA members agreed. "It is better to get out in front and shape the story as you would like," one commented. Another, whose co-op recently had to deal with a disaster, was asked if the co-op brought in a PR firm to help out. "There is no time to do that when disaster strikes — you better be ready with a plan in hand," she responded.
- When using quotes in a press release, make them substantive, or don't use them, one CCAer urged. For example, skip quotes such as "We are pleased to announce the results of another truly successful year by our co-op." These are fine in speeches, but there is no room for them in a press release. Instead, go straight to the point: "Sales and income both increased 8 percent last year due to greater demand for our feed products."
- "Radio is the best bargain there is for getting the word out to a local market," a CCAer said, while another reported good results with her efforts to get co-op officers to serve as experts on local talk radio shows.
- In addition to sending out the text of the release in the email message window, some also attach it as a MS Word file; pdf attachments can be more difficult for the media to
- "I always quiz reporters when they call me, asking: "How did you find out about me?" one member said.
- When it comes to responding to articles your co-op doesn't like, "pick your battles carefully," one participant advised.
- Post news releases to your website as soon as they are distributed to media.

One CCA member's media philosophy summed up much of what was said at the roundtables: "We work every day to maintain strong media relations. It's a never-ending job." ■

Newsline

Co-op developments, coast to coast

Send items to: dan.campbell@wdc.USDA.gov



Record sales. income for Riceland

Higher grain prices during the 2007-08 marketing year resulted in record sales and record distributions to members of Riceland Foods Inc., a farmer-owned cooperative.

Co-op President/CEO Danny Kennedy told farmers at Riceland's 88th annual membership meeting in Jonesboro, Ark., that total sales in fiscal 2008 reached a record \$1.2 billion, up nearly 30 percent from the previous year and the first time co-op sales have topped the billion-dollar mark.

Income before distributions to Riceland's farmer-members was a

record \$707 million, an increase of \$158 million over the previous year, Kennedy said. More than 97 percent of those earnings were returned to Riceland farmers in the form of seasonal pool settlements or cash payments for grain.

He credited the record year to the rise in commodity prices — unlike anything the industry had experienced in 35 years — and to Riceland's sales team "staying on top of the market" and all co-op offices managing costs.

However, Kennedy said excitement over grain prices was tempered by rising productions costs, including higher prices farmers paid for fuel,

fertilizer and other crop inputs. Riceland also had to contend with increased fuel costs to dry, transport and process grain.

Riceland's 2007-08 long-grain rice marketing pool paid farmers an average of \$5.98 per bushel, 92 cents per bushel more than the average price received by farmers who self-priced their long grain rice, the co-op reported. Last year's payment was \$4.38 per bushel. The coop's medium-grain rice pool paid an average of \$5.75 per bushel, compared to \$5.28 per bushel a year ago.

Kennedy said it was also "a tremendous year" for the co-op in the soybean and wheat markets. The

performance of the rice and grain markets for the 2007 crop year and the cooperative's seasonal marketing pools illustrate the purpose and benefits of pool marketing, Kennedy said.

Riceland's balance sheet shows total assets stand at a record \$721 million, and permanent assets at \$267 million. Members' equity, including capital and retained earnings from taxable business, increased to \$213 million, up from \$205 million the previous year. Long-term debt was reduced by \$4 million, dropping to \$54 million while working capital increased to \$66 million, up from \$59 million.

"The tagline on Riceland's logo means exactly what it says: 'A Farmer-Owned Cooperative.' You own these facilities and benefit from them by having a reliable market and by receiving competitive returns for your grain," Kennedy added.

Tree Top buys Oregon fruit puree company

Tree Top Inc. has purchased Sabroso Co., a Medford, Ore.-based maker of fruit purees, for an undisclosed amount. The grower-owned cooperative is expanding product lines and outlets for fruit grown by its members, according to the Yakima Herald-Republic.

With \$90 million in annual sales, Sabroso is the nation's leading manufacturer and seller of fruit purees. The firm also manufactures dried fruit flakes and other products for the ingredient and food-service markets. Sabroso has plants in Medford and Woodburn, Ore., and Oxnard, Calif.

Sharon Miracle, communications manager for Tree Top, said Sabroso will be a wholly owned subsidiary of Selahbased Tree Top. Miracle told the Herald-Republic the two companies have been discussing the purchase for about a year. "It rounds out our offerings to our customers. It also provides an outlet for our growers."

DFA pays \$12 million to settle with CFTC

Dairy Farmers of America on Dec. 16 announced settlement with the

Conner to head NCFC

Charles F. Conner has been named president and chief executive officer of the National Council of Farmer Cooperatives (NCFC), a Washington, D.C.based trade association representing the interests of U.S. agricultural cooperatives. Conner brings more than 25 years of national and state government, agricultural and trade association experience to his new



position. Conner has served as deputy secretary for the U.S. Department of Agriculture since May 2005.

"We were extremely impressed with Mr. Conner's career accomplishments, the depth and breadth of his governmental and industry experience, as well as his keen understanding of agricultural policy, trade issues and the business challenges facing U.S. agriculture in general and agricultural cooperatives in particular," said Bill Davisson, NCFC's chairman and the chief executive officer of GROWMARK, who led the search committee. "He is uniquely qualified to lead NCFC at a critical time, when the needs of NCFC members are changing in a highly competitive global business environment."

"Mr. Conner will bring a fresh perspective and dynamic leadership to NCFC," Davisson continued. "He has a passion for agriculture and a strong commitment to the future success of agricultural cooperatives." Conner was slated to begin his new position at NCFC on or about Feb. 1, 2009.

As Deputy Secretary at USDA, Conner served as chief operating officer, overseeing day-to-day operations, including development of a \$95 billion budget for the 26 USDA agencies with 300 programs and more than 100,000 employees. He represented USDA on the President's Management Council, providing executive expertise to proposed government-wide policy direction on key management initiatives.

Conner interacted directly with President George W. Bush and his senior staff to formulate domestic and international food, trade, security and energy policy. He led development of the Bush Administration's \$300 billion Farm Bill proposal and the strategy to educate and inform industry, constituents and Congress.

From August 2007 to January 2008, Conner served as Acting USDA Secretary and Deputy Secretary. He led an official delegation to Colombia and to a meeting of the Food and Agriculture Organization in Rome, Italy, to enhance the United States' role in influencing global food and trade issues. In addition, he played a key role in developing the administration's immigration policy, including important changes to the H2A program. His role in communicating USDA policy involved print and television media. Conner's experience also includes the assignment of special assistant to the President, Executive Office of the President, from October 2001 to May 2005. In this role, he worked directly with President George W. Bush and his senior staff on the 2001/02 Farm Bill to develop the strategy behind the transfer of several USDA agency functions to the newly formed U.S. Department of Homeland Security.

From May 1997 to October 2001, Conner served as president of the Corn Refiners Association. He navigated and negotiated the interests of both large and small companies to gain consensus on the association's budget and policy direction. In addition, he directed a successful World Trade Organization (WTO) and NAFTA trade case against the Government of Mexico.

Conner is a graduate of Purdue University, with a Bachelor's of Science degree in ag economics and is the recipient of Purdue's Distinguished Alumni Award.

Commodity Futures Trading Commission (CFTC) over charges that the co-op manipulated Class III milk futures contracts and exceeded a speculative position limit. The settlement ends the CFTC's investigation into DFA's trading activities on the Chicago Mercantile Exchange (CME) in 2004.

Kansas City-based DFA is one of America's leading milk marketing cooperatives and is owned by 18,000 dairy farmers nationwide.

Without admitting or denying the CFTC's findings in the administrative order, DFA and two of its former officers — former CEO Gary Hanman and former Chief Financial Officer Gerald Bos — agreed to pay a penalty of \$12 million. The cooperative also agreed to not engage in speculative trading in milk futures contracts for two years and to retain a monitor to review its trading activities on the CME during that period.

In DFA's announcement, co-op President/CEO Rick Smith said that agreeing to the settlement was in the best interests of the cooperative and its members. The long-pending probe was expensive and diverted time and resources from DFA's main mission of serving its members, he said.

"Settling this matter will allow us to focus wholly on serving our members and moving the cooperative forward," said Smith, who took the helm of the cooperative in 2006, two years after the trading activity in question. "The transactions addressed by the settlement took place over a one-month period more than four years ago," Smith continued. "We have fully cooperated with the CFTC's investigation and wanted to put this matter behind us."

Prior to reaching the settlement agreement, DFA management voluntarily developed and implemented new policies and procedures designed to ensure that all trading complies with both the spirit and the letter of the law, Smith said. The DFA board and management follow corporate values that stress openness, transparency and integrity, he added.

'Co-op 100' revenues top \$173 billion in '07

The nation's 100 highest revenue-earning cooperative businesses had record sales of more than \$173 billion in 2007. That's up \$24 billion from 2006, according to NCB (formerly the National Cooperative Bank), which began compiling the NCB Co-op 100 in 1991. In the 17 years since the first list was compiled, the amount of revenue has more than doubled, from \$81.4 billion in 1991.

"During this challenging economic time, the strength of the cooperative structure is even more evident for large and small businesses, in urban and rural settings," said Charles E. Snyder, president and CEO of NCB. "Cooperatives are a driving force in today's economy, generating nearly \$250 billion in annual revenue," he added, noting that total co-op assets nationwide surpass \$1 trillion.

Cooperatives directly employ nearly 500,000 people across the country, and when including indirect and induced effects – support more than 1.2 million jobs.

This year's list saw both new and established cooperatives in the Co-op 100. One new entrant is Farmers Cooperative Co., an agricultural cooperative that increased its revenue to \$592 million during 2007, up from the \$384 million in 2006. That earned the co-op the No. 81 slot on the NCB Co-op 100.

Here are the top two revenue producers in each of the main sectors tracked by the Co-op 100:

Agriculture Co-ops:

- CHS Inc., Saint Paul, Minn., \$17.2 billion (also No. 1 on the overall list);
- Dairy Farmers of America, Kansas City, Mo., \$11.1 billion (also No. 2 on the overall

Grocery Co-ops:

- TOPCO Associates LLC, Skokie, III., \$8.8 billion;
- Wakefern Food Corp., Elizabeth, N.J., \$7.8 billion;

Hardware & Lumber Co-ops:

- ACE Hardware, Oakbrook, III., \$3.9 billion;
- Do It Best Corp., Fort Wayne, Ind., \$2.7 billion;

Finance Co-ops:

- Agribank, FCB, Saint Paul, Minn., \$3.5 billion;
- CoBank, Greenwood Village, Colo., \$3.1 billion;

Healthcare Co-ops:

- HealthPartners Inc., South Bloomington, Minn., \$2.7 billion:
- Group Health Cooperative, Seattle, Wash., \$2.6

Energy & Communications Co-ops:

- National Cable Television Cooperative Inc., Lenexa, Kan., \$1.9 billion;
- Seminole Electric Cooperative, Tampa, Fla., \$1.2 billion.

The entire NCB Co-op 100 report is available at: www.ncb.coop.

DFA's actions constituted a "manipulative scheme," CFTC Acting Director of Enforcement Stephen J. Obie said in a press release. "Given the severity of the past misconduct, we are pleased that DFA has committed to reform its trading practices."

The commission contends that from

May 21 through June 23, 2004, DFA, Hanman and Bos attempted to manipulate the price of the Class III milk futures contracts through purchases of block cheddar cheese on the CME cheese spot-call market. The order finds that the pricing relationship between the CME block-cheese market



and the Class III milk futures market is well known throughout the industry, and the CME block-cheese market price plays a significant part in establishing Class III milk futures prices.

Additionally, the DFA order finds that on several days in 2004, DFA's speculative Class III milk futures contracts exceeded the CME's speculative position limit, in violation of the Commodity Exchange Act.

In addition to imposing civil penalties, the DFA order bars Hanman and Bos from trading futures for five years. It also bars DFA from engaging in speculative trading for two years and orders DFA to: 1) retain a monitor to ensure that DFA does not engage in speculative trading and that DFA's Cheese spot call market cheese purchases are made for legitimate business purposes; 2) implementing a compliance and ethics program; and 3) providing future cooperation to the CFTC.

As part of a separate order, Frank Otis, former CEO of a DFA subsidiary, will pay \$60,000, and Glenn Millar, former executive vice president of the subsidiary, will pay \$90,000 for directing trading of Class III milk futures in an internal sub-account designated for a DFA subsidiary, the CFTC news release said.

Blue Diamond says confidence key to future market stability

Building and maintaining market confidence is key to maintaining California almond industry success, according to Blue Diamond President and CEO Doug Youngdahl. Record industry almond shipments in 2007-08 exceeded the previous year by 18 percent, helping Blue Diamond achieve record sales of \$711 million, Youngdahl told the cooperative's grower-owners at their 98th annual meeting.

Total global consumption rose by 50 percent in the Middle East; 32 percent in Eastern Europe; 24 percent in Western Europe; 20 percent in Asia; and 7 percent in the United States, the largest single almond market. California almonds are the state's largest food export valued at nearly \$3 billion.

Blue Diamond's share of the record 2007-08 crop grew faster than the industry as a whole, allowing the cooperative to meet its tonnage objective ahead of schedule. The co-op also gained in market share. Its branded retail business has doubled in three years, tripled in five years and



quadrupled in six years.

"Our Blue Diamond brand has driven U.S. snack nut business growth over the last six years, averaging over 25 percent [growth] annually," Youngdahl said. "With 21 percent of all meals being labeled as snacks, snacking is fast becoming America's 'fourth meal' of the day," he adds.

Blue Diamond's natural foods business is also booming, with Almond Breeze leading the non-dairy almond milk sales category. The 2007 sales for Almond Breeze increased by 32 percent compared to the previous year. A new refrigerated line of almond milk products is expected to add to this success in 2009. The product is currently sold in aseptic packaging that does not require refrigeration until opened.

Blue Diamond partly attributes the growth of global almond consumption to the favorable nutritional profile of

Looking ahead to a third record crop

of an estimated 1.5 billion pounds (9 percent above previous year) in 2008-09, California almond consumption is expected to continue to climb. However, this prediction comes with caveats that include a water shortage that could affect future crop size and kernel sizes that will require creative new market development. A strengthening dollar could also affect global buying power as it costs customers more to convert their currency to dollars to purchase almonds.

In other Blue Diamond news:

- By a margin of more than two to one, the co-op's hourly workers in Sacramento voted down a unionorganizing effort, the culmination of a four-year campaign by the International Longshore and Warehouse Union. The vote was by secret ballot, although the union had been pushing for a "cardcheck" election, in which union members can get other workers to "vote" for the union by signing a card.
- The co-op is purchasing property formerly owned by Hershey Co. in Oakdale, Calif. The 13.5-acre property includes more than 130,000 square feet of cold storage. The increasingly large almond crops mean the co-op needed additional warehouse space to supplement its warehouses in Sacramento and outside Modesto.

WFC-MAC now **Cooperative Network**

The Wisconsin Federation of Cooperatives (WFC) and Minnesota



Association of Cooperatives (MAC) have changed their name to "Cooperative Network," effective Jan. 1, 2009. Since 2004, WFC-MAC has been operating as a unified, two-state organization, sharing staff, program ideas, education offerings and hosting a joint annual meeting.

One of the goals for the name change was to create an organizational name that encompassed all members



and that allowed for future growth.

At the organization's annual meeting in November, members confirmed the new name and voted to restructure the organization's board to better accommodate and represent members from both states.

"Under the new Cooperative Network name, we reiterate that we are one organization, acting in the best interest of our members and our communities throughout Minnesota and Wisconsin," says Bill Oemichen, Cooperative Network president & CEO.

Cooperative Network serves more than 600 member-cooperatives, owned by more than 6.3 million Wisconsin and Minnesota residents.

It provides government relations, education, marketing and technical services for a wide variety of cooperatives. For more information, visit: www.cooperative network.coop.

Mooney to chair NMPF; CWT to continue in '09

The National Milk Producers Federation elected Randy Mooney as its new chairman during its 2008 annual meeting in Nashville, Tenn. Mooney had been serving as assistant secretary of the NMPF board. He, his wife and a partner operate a 250-cow dairy in Rogersville, Mo., where he has farmed since 1979. Mooney also has a beef cattle operation and is board vice chairman of Dairy Farmers of America.

Mooney replaces outgoing chairman Charles Beckendorf, who will remain on the board until March.

During the annual meeting it was also announced that Cooperatives Working Together (CWT) has received commitments from its members to continue to fund the program in 2009. "Now more than ever, CWT is the only answer to the question of what farmers can do to positively impact their milk

price," said Jerry Kozak, president and CEO of NMPF, which manages CWT. "Both world and U.S. dairy markets are sagging, and things look tough for 2009. Our members recognize that this program is the best way to help balance supply and demand and positively impact producers' bottom line."

CWT removed 184 herds, with 61,000 cows that produced 1.2 billion pounds of milk, through its second herd retirement of 2008. CWT's first herd retirement of the year removed 25,000 cows that produced 430 million pounds of milk. In addition, its export assistance program has helped members sell more than two billion pounds of milk in 2008.

An independent economic analysis of CWT, conducted last fall by Dr. Scott Brown of the University of Missouri's College of Agriculture, demonstrated that farmers' return on investment in CWT has been 76 cents per hundredweight.

CHS notches fifth consecutive year of record earnings in '08

CHS Inc. — the nation's largest cooperative and a leader in the energy, grains and food sectors — reported record net income of \$803 million for fiscal 2008, up from \$756.7 million for fiscal 2007. Total revenue of \$32.2 billion was also a record and was up 87 percent from \$17.2 billion in fiscal 2007. The increase in revenue was largely attributed to higher values for the energy, grains, crop nutrients and other commodities the co-op handles, the co-op said in a news release.

The fiscal 2008 results mark a fifth consecutive year of record income and revenue for CHS. As a producer-owned cooperative, CHS returns a portion of its earnings to eligible owners. In 2008, based on 2007 performance, the company issued a record \$340 million in cash patronage, equity redemptions, preferred stock and dividends. Based on 2008 earnings, CHS is expected to return about \$340 million to owners during fiscal 2009.

The company's 2008 earnings reflected strong performance within all business segments. The company's Ag Business unit, which consists of crop nutrients, grain marketing and retail operations, led the way. It experienced strong global and domestic demand along with record values for CHS' ag products. Ag Business earnings for fiscal 2008 also included a \$91.7 million gain on the sale of the company's remaining shares of CF Industries Holdings Inc., a crop nutrients manufacturer.

Energy earnings, while down from 2007 due to tighter refining margins, remained strong and reflected record performance from the company's lubricants and propane businesses. Within the Processing segment, CHS reported strong results for its own oilseed-crushing and refining operations, as well as its ownership of Horizon Milling LLC, a flour miller. Earnings fell for Ventura Foods LLC, a vegetable-oil-based food manufacturer and packager, of which CHS owns 50 percent. Ventura felt the impact of both higher ingredient prices and the current economic downturn.

CHS recorded a \$71.7 million (\$55.3 million net of taxes) impairment on the value of its investment in VeraSun Energy Corp., an ethanol manufacturer which filed for reorganization under Chapter 11 bankruptcy statutes as a result of downturns in that industry. CHS owns approximately 8 percent of VeraSun.

CHS also saw record performance in its corporate business solutions operations, which include insurance, risk management and financial services businesses.

CCA speakers available to address key co-op issues

The Speakers Bureau of the Cooperative Communicators Association (CCA) has more than a dozen speakers available nationwide who can address a wide range of topics of interest to co-op members. "In an association of communicators, it's fair to say that topics such as writing, photography and video production, website design and communications strategies are among the Speakers

Bureau's long suits," says Jim Erickson, chairman of the CCA Speakers Bureau Committee. "But the list of subjects that individual bureau's members present goes well beyond what you might expect."

Leadership, board and management development, cooperative-related education, use of specialized software and the "ins and outs" of working effectively with the news media are among other topics found on a lengthy list of Speakers Bureau presentations on the CCA website (www.communicators. coop). One-man dramatic presentations about author and humorist Mark Twain and Minnesota Congressman Andrew Volstead, who wrote legislation generally viewed as the most important act in U.S. co-op history, are offered as

Going to the CCA website and clicking on "Speakers Bureau" brings

up the bureau's introductory page. From there, click on links that provide the list of available presentations, names and photos of speakers, their background and contact information, guidelines for contacting and making arrangements with a speaker and a

speaker request form. An evaluation form also is available.

Because Speakers Bureau participation is voluntary, a specific speaker may not always be available when requested. In such situations, Erickson urges those needing a speaker to contact the CCA office via the organization's website, or to e-mail him: ericksonjim@att.net.

Also serving on the CCA Speakers Bureau Committee are Cathy Merlo of Bakersfield, Calif., and Jean Freeman of Fairfax, Va.

USDA program aims to help **African-American farmers**

In December, USDA announced that it will provide \$230,000 to help develop pilot programs that address the "heir property" issue, which has contributed to an ongoing, multi-generational trend of land loss by African-American

> farmers. In announcing the funding, a USDA spokesperson said the land-loss issue by black farmers is "an old, old problem, and we're looking for constructive solutions. These funds will help develop creative approaches to clarifying clouded titles and stabilizing ownership before it becomes necessary to, literally, 'sell the farm." Because of a variety of factors in the post Civil-War era, many African-American small farmers died intestate. In the absence of a will, property typically passed to multiple heirs with undivided interests (tenancy in common),

leading over time to highly fractionated ownership patterns.

Fractionated ownership inhibits borrowing, raises barriers to expansion and modernization, and leads to systematic under-use of affected properties. Very often, these difficulties prompt the sale of heir properties, as this is the easiest way for multiple descendants to "cash out" their interests.

Consolidating title has therefore been identified as a key strategic goal by a number of African-American land-loss prevention organizations.

In January 2007, USDA Rural Development solicited comments on possible approaches to the problem from private, nonprofit communitybased organizations to develop concrete, measurable work plans to address the heir-property issue.

USDA is now moving forward with the next stage in that strategy, from research and analysis to implementation. This is considered an important step toward untangling a knot of ownership issues that have been passed along for generations. The ultimate goal is to put affected farmers in a position to compete more effectively in the future.

Brownlee to fill key USDA communications role

Jim Brownlee, former information director for USDA's Agricultural Cooperative Service (now the Cooperative Programs of USDA Rural Development), was recently named USDA assistant director of communications for public affairs. Brownlee will have the responsibility of providing communication leadership on food, agriculture, rural development, trade, energy, natural resources, science and related issues. He says his goal is to "use sound public affairs practices to



ensure that the Department has an effective and coordinated voice on all matters pertaining to USDA."

The Office of Communications is the public pulse of USDA, responsible for coordination and dissemination of

USDA information via www.usda.gov, the Department's acclaimed website.



His office reviews all information issued by USDA and its 29 agencies and staff offices. It also coordinates media, constituent and stakeholder outreach.

Brownlee received the 2008 USDA Honor Award for his efforts to organize the Washington International Renewable Energy Conference, which drew participants from around the world and helped accelerate the drive to develop renewable energy. He also acts as an editorial consultant on USDA's Rural Cooperatives magazine.

Earlier in his career, Brownlee was communications director for Union Equity cooperative in Enid, Okla., before going to work for USDA in 1992. He was president of the Cooperative Communicators Association in 1989-90, and received that organization's Grazank Award in 1989, recognizing him as one of the nation's outstanding young co-op communicators.

G&T co-ops support lowa wind farm

Six generation and transmission cooperatives across the United States are supporting a renewable energy project, culminating with the commercial operation of the 150megawatt (MW) Story County Wind Energy Center in Story County, Iowa. The project is owned and operated by a subsidiary of FPL Energy and began

commercial operation in November.

This is believed to be the first time several G&T cooperatives operating in different regions of the country have banded together to reap the benefits of a large-scale wind project.

Participating co-ops are: Buckeye Power Inc. (Ohio), PowerSouth Energy Cooperative (serving Alabama and Florida), Wabash Valley Power Association (serving several Midwest states, including Indiana), Hoosier Energy (serving Indiana and Illinois), Central Iowa Power Cooperative (CIPCO) and North Carolina Electric Membership Corporation.

Participating jointly gives each G&T co-op the ability to spread any risks associated with the project, and to participate on a pro-rata basis (taking only the megawatt quantity desired) in a sizeable and viable project with a highly regarded developer in a wind-rich region.

USDA funding biorefinery projects

USDA Rural Development is accepting applications for the Section 9003 Biorefinery Assistance Program and seeking public comment on how best to implement it. The program is one of several renewable energy provisions contained in the 2008 Farm Bill.

The Biorefinery Assistance Program

provides loan guarantees to develop, construct and retrofit commercial-scale biorefineries. The maximum loan guarantee is \$250 million per project, subject to the availability of funds. Preference is given to projects where first-of-a-kind technology will be deployed on a commercial scale.

The deadline for completed applications was Dec. 31, 2008, for funding in the first half of fiscal 2009, and is April 30, 2009, for funding in the second half of the fiscal year. For more information, visit: www.rurdev.usda.gov.

'Grower-owned' key to Musselman's new applesauce advertising campaign

In its newest advertising campaign, which uses TV for the first time in three years, Musselman's is repositioning itself to better compete in the applesauce category. Musselman's is a division of growers' cooperative Knouse Foods, based in Peach Glen, Pa. The cooperative's new campaign — "Grower-Owned since 1949" — first aired in mid-November. The new campaign replaces Musselman's previous "Healthy Snack Alternative" campaign.

Consumer research shows that "grower owned" also suggests quality and freshness, and is unique vs. what other brands in the category were

communicating, according to Knouse Foods. Targeting moms with school-age kids, two television commercials and two outdoor billboards will run in five test markets, from Philadelphia to Minneapolis, each selected for high potential share growth.

Morning TV ads have been appearing on programs such as "Oprah," "Good Morning America," "Ellen" and "The View." Cable TV ads will run on the Food Networks and the Learning Channel, among others. Outdoor billboard ads are being posted in high-traffic areas, close to food retail locations.

Lamb co-op buys out partner

Mountain States Lamb and Wool Cooperative, Douglas, Wyo., has purchased the remaining interest in Mountain States Rosen, according to a report in the "Casper Star-Tribune." The cooperative markets lamb throughout the United States and in some foreign markets. It features producers from the region on packages of lamb.

The co-op, which has 140 family producers in 13 states, says Mountain States Rosen is the nation's largest fullyintegrated lamb and veal company.

Montana co-ops to merge

Laurel Town & Country Supply has

announced a merger with Farmers Union Association of Big Horn County, according to a report in the Laurel (Montana) Outlook. Big Horn County members approved the merger by the required two-thirds majority at a November meeting. The businesses will operate under the Town & Country Supply name. The merger will become effective Feb. 1.

Town & Country General Manager Wes Burley told the "Outlook" he believes the merger will allow the company to provide better service to its patrons in both trade areas because it will be able to purchase in larger volumes from suppliers and the businesses will be able to share equipment, staff and management personnel.

The merger will add another farm store, convenience store, agronomy plant and bulk fuel and propane plant to the Town & Country Supply operation. Besides its farm store in Laurel, it also operates a convenience store/casino and a bulk fuel and propane plant. It also has agronomy plants in Bridger and Edgar, a convenience store in Bridger, a convenience store in Billings and a farm store in Bridger.

Utility Co-op Connection

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of new-generation capacity will be needed, including natural gas, coal, nuclear and renewables. Nearly 40 gigawatts of new renewable capacity will be needed just to meet state requirements."

Capital spending to upgrade distribution and transmission facilities nationwide may surpass investment in new generation, the study found, EEI says. Spending on "smart grid" technologies to ramp up efficiency - along with new power lines to integrate renewable electricity sources — will account for much of that spending.

A "smart grid" uses technology to better manage electric generation, transmission and consumption to reduce costs and the impact on the environment, while improving service and operating efficiencies. EEI estimates that utilities will need to invest a minimum of \$1.5 trillion during the next 20

years to meet basic infrastructure requirements.

Broad energy portfolio needed

The Electric Power Research Institute (EPRI) has said that a full portfolio of sources is necessary to meet both energy and environmental needs. EPRI calls for a balanced approach to limit carbon emissions, while maintaining system reliability, sustaining economic growth and providing time for development and deployment of technologies.

While carbon capture and storage will not be widely available until after 2020, according to EPRI, a viable solution will require a mix of strategies, including energy efficiency, renewable resources, new nuclear capacity, clean coal generation, carbon capture and storage, plug-in hybrid vehicles and distributed energy resources.

EPRI's carbon dioxide reduction model calls for emissions to be capped at 2010 levels until 2020, and then reduced by 3 percent annually. This approach is expected to reduce carbon dioxide emissions to 1990 levels by 2030.

USDA Rural Development's Electric Program is playing a key role in this effort. "Our goal is to help further the advancement of these technologies," the USDA report says.

USDA is assisting Basin Electric Cooperative in North Dakota with the installation of carbon-capture technology at an existing coal-fired generation plant. When operational, the technology will remove a portion of carbon dioxide and feed it into Basin's compression and pipeline system. Smaller portions of carbon dioxide will be removed from the pipeline to test sequestration capability.

Former USDA Secretary Ed Schafer, in a recent address to Basin Electric Power Cooperative's annual meeting, told co-op members that "Finding ways to expand our use of coal while protecting the environment will open up great possibilities for the nation as a whole....Historically, coalfired plants have been the backbone of electric power generation in rural America, providing close to 60 percent of its power."

Schafer said that while utilities continue to pursue new energy sources, "taking coal out of the equation leaves a gap that will be difficult to fill."

Carbon reduction technology costly

"To develop a successful strategy to reduce carbon dioxide emissions requires a strong investment in what is already a capital-intensive sector of the economy," explains Former Rural Development Utilities Program Administrator Jim

Andrew. "Times are changing, and we must change with the times."

Another good example of these changes — the new National Renewables Cooperative Organization (NRCO) will also help rural electric utilities meet renewable portfolio standards."

Rural electric cooperatives from approximately 20 states joined to form the NRCO to facilitate development of renewable resources nationwide, help co-ops meet renewable portfolio standards and assist with legislative and regulatory initiatives.

Cooperatives, owned by their members, have said that consumers must be considered in greenhouse gas emission policies because of the costs associated with climate-change goals.

"The economy of this country is highly dependent on reliable electricity...that dependence is growing as more of the economy shifts to the service sector and as we move to energy dependence," the USDA report notes. "The development of alternative transportation fuels, regardless of the feedstock, will also require significant sources of new generation.

"Continued development and improvement of new renewable generation technologies, the manufacture of these technologies and their development to reduce emissions will add economic and employment opportunities," it continues. "Much of that investment will be in rural America."

Making a Market

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supplier of blueberries, and with members in 13 states and British Columbia, co-op CEO Frank Bragg's interest in traceability has been driven by the question: "Who knows the source of that product?"

The cooperative was the first in the industry to use secure clamshell packaging and now provides total traceability. MBG can identify the day particular blueberries were picked, the field block they were picked from and the people who picked the fruit. Setting MBG apart from the other suppliers is the co-op's unique ability to also trace the lot harvested in the field forward to the customers that received it.

Noting that each member has a food safety program on their farm, MBG Director Allen Miles adds: "Our standards exceed USDA standards to differentiate MBG from any other

marketer to put MBG on the cutting edge."

MBG was started in 1936 to provide a fair return to members. Through the cooperative's sales force, it gives grower-members a single voice in the marketplace. The early years of the cooperative coincided with a phase of industry development that involved transitioning from independent segments to a more integrated, coordinated system.

Perhaps because the 72-year-old cooperative retains an institutional memory that if the milk buyers didn't come, milk had to be dumped, MBG has kept the Sapiro-based marketorientation that contributed to its creation. "MBG is continually looking for ways to get closer to the consumer," notes Bragg. MBG is, therefore, highly focused on improving the retailercustomer interface representing the current phase of industry development.

Fierce competition for emerging

markets has encouraged retailers to pursue the basic norm of agricultural industrialization: "the low-cost producer survives" (Hogeland, 2006). To deliver a consistent level of quality to the consumer and squeeze out excess costs, retailers have backward integrated to the grower level. This can affect what retailers are willing to pay growers. Consumer price "rollbacks" by retailers ignore the effect of inflation on grower costs.

Today's market expansion and strong prices portend a potential blueberry market glut five years from now. Production levels in 2013 are expected to represent a doubling of 2008 levels. Eventually, once quality improves, lower-cost Chinese blueberries may create import competition for U.S.

If "costs are everything," then the product becomes a commodity and procurement will be driven by the cheapest price. California apricot

growers were undermined by competition from cheaper Turkish apricots.

Protection for suppliers

Suppliers can protect themselves by offering retailers a better understanding of the consumer, by recognizing purchasing patterns from retail data, or by interpreting market signals to identify what is and isn't selling. Sun-Maid targets more than a 99-percent order-fulfillment rate and 95-percent on-time delivery. This is especially significant because Sun-Maid is the world's largest producer and processor of dried fruit and represents more than one-third of California's raisin growers.

To John Shelford, CEO of MBG's affiliated grower organization, Naturipe Farms Grower Services LLC, efficiencies come from providing value to the customer through a guaranteed supply of blueberries, blackberries, strawberries, etc. As a perishable product filling a niche market, berry production based on a high-volume, industrialized model matters less than continuous product availability, a concept MBG calls "selling the category."

Naturipe Farms markets fruit from all over the world to establish its credibility as a year-round supplier. This led MBG to successfully develop a market for late-season blueberries. Marketing 12 months each year enabled the cooperative to spread costs to support a fresh-product sales team.

Contributing to successful global marketing are the right partnerships that can preserve grower interests as retailers consolidate. In December 2008, Sunsweet, the world's largest prune packer, and ShoEi Foods USA (the third largest prune packer in California), formed a joint processing alliance. This united the latest technology for responding to consumer taste preferences and sensitivity to food safety. ShoEi USA will contribute a proprietary preservative-free process to the alliance to attain the highest possible degree of food safety, sanitation and fresh prune flavor for Japan and

other high-specification customers.

To achieve this, the alliance will result in a specially constructed, enclosed processing area where Sunsweet Growers can apply its worldclass patented processing and pitting systems to dry, process and pack all ShoEi USA prune products.

Foreign-sourced fruit concerns

When MBG was offered a source of contra-seasonal fruit supply, some members filtered this through the traditional belief that cooperatives should not compete with their members. (This was a norm that contributed to the loss of significant cooperative presence in the pork industry — see Hogeland, 2006). To this "all you are doing is helping competitors succeed" stance, Bragg replied: "They'll be successful with or without us."

In fact, Reardon indicates that effective global marketing is relationship-based. Chains need suppliers who will connect growers in one emerging market with customers in another. Sunsweet recognized that new prune-plum orchards planted in Chile and Argentina could depress prices by increasing world supply. The cooperative has actively engaged Chilean growers in market development, education and advertising. By increasing the farming skills of highpotential local growers, Sunsweet actively manages the quality of the product fed into local or global supply chains. Through direct sourcing and programs putting local suppliers on a par with foreign competition, Reardon anticipates marketing infrastructures will naturally evolve to encompass new super markets.

Indeed, a premium-quality Chilean sourcing presence positions Sunsweet to capture high-value opportunities in emerging global food markets. Moreover, foreign sourcing reinforces cooperative control over the world's largest prune supply. Since 2005, Sunsweet's market has grown by 32 percent and revenue has increased by \$75 million.

In this era of emerging markets and food scares, better market access requires improved product information and handling (including speed of delivery), multi-site production and sales locations, and product sensitivity to changing demographics, cultures, climates and tastes. Sunsweet, MBG Marketing and Sun-Maid demonstrate how cooperatives can offer market access to retailers based on these criteria.

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