Rural COOPERATIVES

USDA / Rural Development

May/June 2009

Community farm co-op embodies Plunkett's vision

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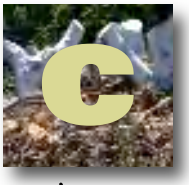
Commentary

California's 30-year drought

Due to lack of water, these avocado trees in San Diego County have been "stumped," taking them out of production for a few years in hope that the water situation improves by the time they grow back into production. Photo courtesy San Diego Farm Bureau

By Don Gordon

Editor's note: Gordon is president of the Agricultural Council of California, which helps to represent the interests of the state's farmer-owned cooperatives. "If an issue affects California's farmer-owned enterprises, the Ag Council is there," says Gordon. Other states, including parts of Texas and Florida, were also facing severe droughts as of this writing in April.



alifornia water officials have proclaimed 2007-2009 as California's worst drought in 150 years, bringing back memories of the "dust bowl" conditions of the 1930s. While there's good reason for concern among the state's grower-owned cooperatives — which play such a vital role in the state's farm economy, producing everything from oranges, to almonds, to raisins to milk and cotton — the drought should be viewed in a broader context.

California is a big state with eight agricultural production regions that differ in topography, temperature, rainfall, soil, water, crops, environmental restrictions and degree of urban encroachment. About 400 commercial crops are produced on approximately 26 million acres (8 million of which are irrigated).

Depending on the region, agricultural water is sourced from rainfall, irrigation districts, groundwater and riparian rights. The primary watersheds are in the northern third of the state whereas 80 percent of the demand is in the lower two-thirds of the state.

For the most part, agricultural water supplies remain adequate. However, certain regions — such as the west side of the San Joaquin Valley — are in dire straits. The U.S. Bureau of Reclamation announced that farmers on the west side of the valley would receive a zero-percent water allocation, thus choking off water to thousands of acres of newly planted almond trees and fallowing several 100,000 acres of row-crop land.

Farther south, acres of avocado trees in San Diego County are being "stumped" (radically pruned) in order to reduce water consumption. If the current dry spell extends significantly beyond 2009, most of the other agricultural regions will be severely impacted as well.

Notwithstanding the current situation, California farmers have been enduring a virtual man-made drought for the past 30 years. Increased environmental, industrial, recreational and urban demands driven by population growth have inexorably squeezed agricultural water allocations. The situation has been further exacerbated by federal court decisions mandating strict enforcement of the Endangered Species Act.

As a result, water supply, quality and cost have been major

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Members of Stroud Community Agriculture proudly display samples of produce harvested from the co-op's farm in Gloucestershire, England. To secure a dependable supply of quality organic foods, community members started their own farm. See page 20. Photo courtesy the Soil Organization

Co-op Economic

By Lynn Pitman,
University of Wisconsin
Center for Cooperatives

Editor's note: for the full report on which this article is based, visit: http://reic.uwcc.wisc.edu/.

Cooperatives occupy a unique niche in the economy of the United States. Co-ops are engaged in a broad range of businesses: electricity distribution to rural farms and homeowners, bargaining and marketing services for agricultural producers, and delivery of home healthcare services for the elderly, among many others. Cooperative businesses have provided an effective "bottom-up" solution for meeting needs imperfectly addressed by the market and have been responsible for many market innovations.

Nonetheless, no comprehensive national statistics about U.S. cooperative businesses exist to quantify and describe their impact on the U.S. economy and on the lives and businesses of Americans. To address this lack of basic information, the U.S. Department of Agriculture funded the Research on the Economic Impact of Cooperatives (REIC) study, which is being conducted by the University of Wisconsin Center for Cooperatives (UWCC). The project received matching support from the National Cooperative Business Association and the Wisconsin Department of Agriculture, Trade and Consumer Protection. UWCC and the University of Wisconsin-Madison also provided in-kind support.

The first phase of the study, completed in April, provides an initial snapshot of the size and scope of cooperative activity.

How big a footprint?

UWCC collected data summarizing four aggregate economic sectors and 17 subsectors that were defined by USDA at the outset of the project. The study identified more than 29,000 U.S. cooperative firms operating at 73,000 locations and owning more than $3 trillion in assets.

These co-ops directly accounted for more than $500 billion in revenue. Wages and benefits topped $25 billion and supported 853,000 jobs.

There are an estimated 118 million U.S. cooperative memberships, with individuals often being members in more than one co-op. When mutual insurance policy holders are included, that number rises to more than 351 million.

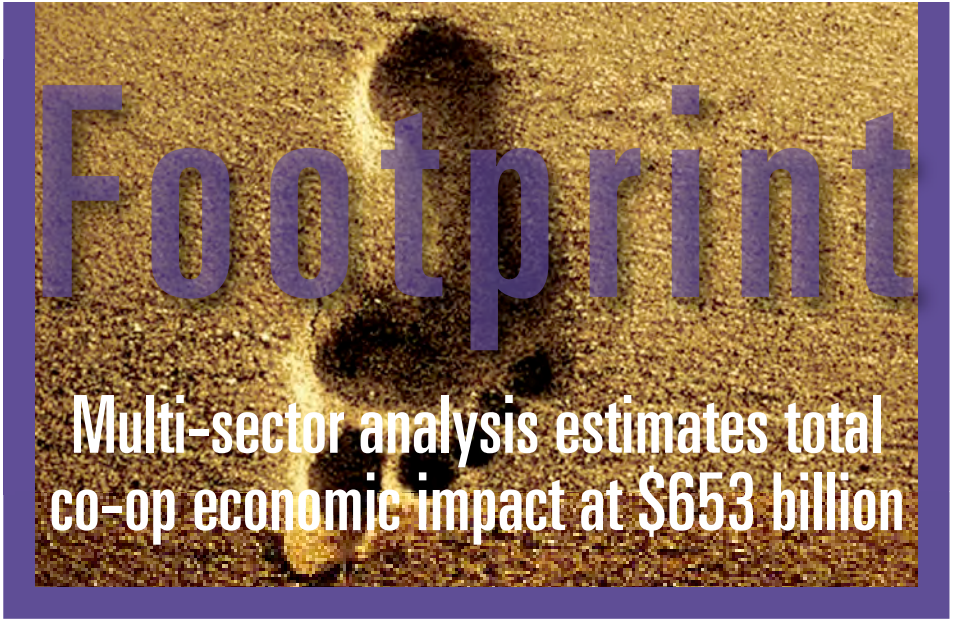
There are additional impacts from the direct business activity of cooperatives that ripple through the broader economy. A cooperative's costs include outlays that become revenue for other businesses. Wages, dividends and patronage refunds paid out by the cooperative become the personal income of individuals whose spending is the source of revenue for other businesses.

To gauge the true size of the

ECONOMIC IMPACT OF U.S. COOPERATIVES: Aggregate Impact by Sector*

	Sector Revenue ($Millions)	Income ($Millions)	Wages ($Millions)	Firms	Employment (No. Full-time jobs)
Commercial Sales & Marketing	201,207	37,737	13,810	3,463	422,505
Social & Public Services	7,523	2,213	1,690	11,311	424,505
Financial Services	394,364	100,660	51,177	9,978	1,133,353
Utilities	49,808	13,392	8,292	4,536	162,873
Total	652,902	154,002	74,969	29,288	2,143,236

**Analysis does not include housing cooperatives.*



Footprint

Multi-sector analysis estimates total co-op economic impact at $653 billion

economic "footprint" of cooperatives, these secondary economic impacts also need to be part of the analysis. The study estimates that total cooperative economic activity, including secondary impacts, account for nearly $653 billion in revenue, in excess of 2 million jobs, almost $75 billion in wages and benefits paid, and $154 billion in income.

The commercial sales and marketing sector encompasses cooperatives that provide agricultural marketing, processing and supply services, biofuel refining companies, consumer cooperatives that buy wholesale on behalf of consumers, arts and crafts cooperatives that supply and sell the work of artist members, and other cooperatives that operate across a wide variety of economic subsectors. Across all economic-impact measurements, farmer cooperatives account for the substantially largest share of this sector.

Social and public service cooperatives include firms that provide a diverse array of healthcare, housing, transportation and education services. Housing cooperatives dominate this aggregate economic sector in terms of the number of entities, but economic impacts of housing co-ops were not reported. Assessment and tax practices for co-ops vary significantly by municipality, making it impossible to achieve data consistency. The healthcare subsector accounts for the largest share of employees and members within this aggregate sector. While this sector accounts for a tiny fraction of the economic impacts that were measured, the largest share of identified cooperatives — more than 38 percent — fell within this category.

The financial service cooperative sector encompasses credit unions, banks within the farm credit system, mutual insurance companies and a cooperative finance group comprised of a variety of financing organizations that lend to cooperative firms and banks. Credit unions and mutual insurance companies account for the largest number of firms, establishments, memberships and employees, but the cooperative finance subsector accounts for the largest share of assets within the financial services economic sector. This subsector includes NCB (formerly the National Cooperative Bank), the Association of Corporate Credit Unions, the Cooperative Finance Corporation and the Federal Home Loan Bank System, and accounts for a significant portion of cooperative economic activity. These institutions are owned by their members, are controlled by a board elected by member institutions and are operated to provide benefits to their member banking institutions.

Utilities cooperatives provide electric, telephone, and water and waste services. Cooperatives that provide electric utility services, including generation and transmission, dominate this aggregate sector in terms of total economic activity. Many of these entities resulted from federal enabling

AGGREGATE IMPACTS: Revenue ($Millions)

Commercial Sales & Marketing	**Total**	**Farm Supply/Mktg**	**Consumer**	**Arts&Crafts**	**Biofuels**	**Other**
	201,207	128,339	2,124	237	10,302	60,205
Social & Public Services	**Total**	**Healthcare**	**Childcare**	**Housing**	**Transport**	**Education**
	7,523	5,212	421	0	567	1,323
Financial Services	**Total**	**Credit Unions**	**Farm Credit**	**Mutual Insurance**	**Co-op Finance**	—
	394,364	74,882	15,382	226,572	77,528	
Utilities	**Total**	**Electric**	**Water**	**Telephone**	—	—
	49,808	43,347	2,582	3,879		

legislation in the 1930s for rural infrastructure development. Water and waste cooperatives often perform a quasi-public function and provide valued services to their communities.

Consumer co-ops account for 92 percent of identified firms

Most cooperatives can be catagorized as either "producer" or "consumer" cooperatives. A producer cooperative serves its members by bringing their products to market, while a consumer cooperative purchases goods or services to sell to its members. Producer co-ops are found almost exclusively within the agricultural and arts and crafts categories within the commercial sales and marketing category. Consumer cooperatives can be found within all four of the economic sector groups.

"Purchasing" (or business-to-business) and "worker" cooperatives are variations on the producer/consumer split. Purchasing cooperatives are similar to consumer cooperatives in that they collectively purchase goods or services to sell to members, but the membership is comprised of businesses and other organizations instead of individuals. A worker cooperative is a type of producer cooperative where the "product" provided by members is labor.

About 80 percent of all worker cooperatives are found in the commercial sales and marketing sector; the remainder is found in the social and public services sector. While about 19 percent of purchasing cooperatives are found in the commercial sales and marketing sector, 66 percent are in the social and public services sector, 4 percent in the financial services sector and 11 percent in the utilities sector.

Where the numbers came from

Unlike data-reporting agencies of many other countries, the U.S. Census Bureau does not identify cooperatives in any of its census or business reporting surveys. UWCC used a variety of resources to conduct its own census of cooperatives in the commercial, social services, financial and utilities sectors that were specified in the USDA grant.

Some sectors of cooperative activity are well-documented, and comprehensive listings were available from government or trade associations. For other sectors, a more laborious primary population discovery process was necessary to identify and build co-op lists.

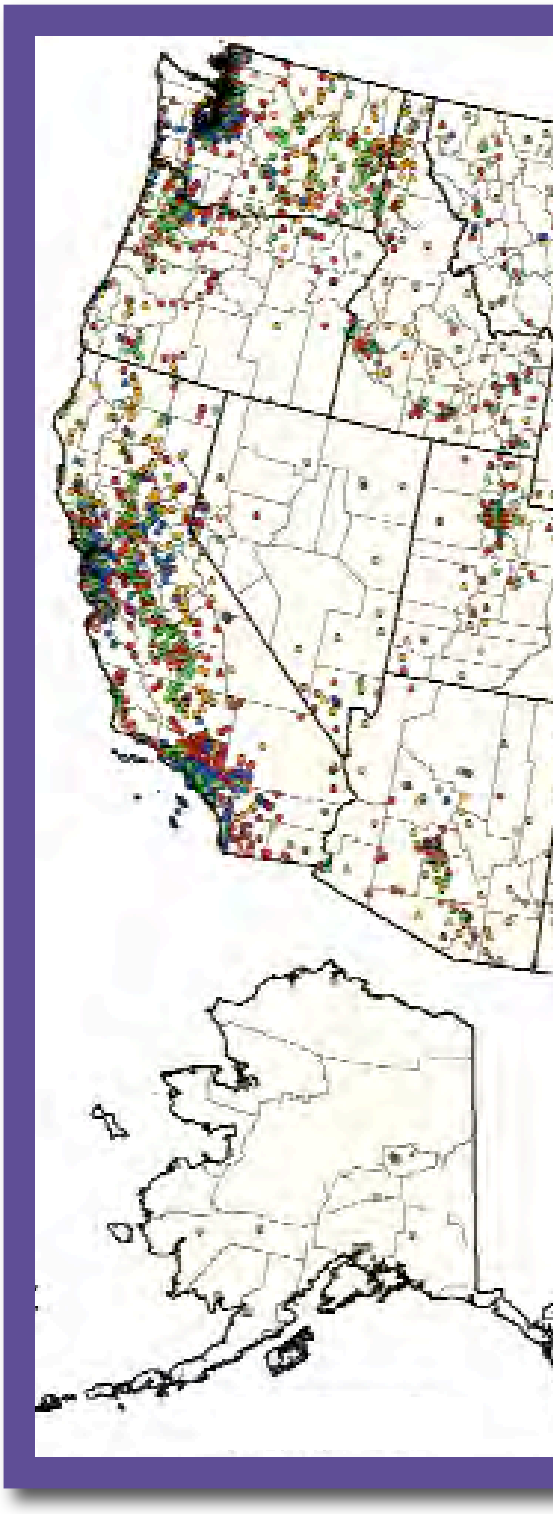
Once a census was complete, economic data were collected using a variety of methods. Some sources were able to provide aggregated business activity data as well as lists of cooperatives, and about 85 percent of the data on direct cooperative economic activity were collected in this manner. Standardized surveys and uniform sampling methodology were used to collect key business indicators from individual cooperatives on the remaining lists.

To estimate the secondary economic impacts of cooperative business activity, the study used IMPLAN, an input-output modeling system. Steps were taken with the analysis to ensure that the impacts were conservatively projected. The results of this study represent the lower bounds of cooperative activity in the United States.

Defining "cooperative"

In many cases, it was unclear whether an identified organization should be considered a cooperative. As baseline criteria, the study used the USDA definition of a cooperative: an organization that is owned and controlled by patron members and operates for their benefit, distributing earnings proportional to use. These defining characteristics were identified through incorporation, tax filing and member activity information obtained through surveys.

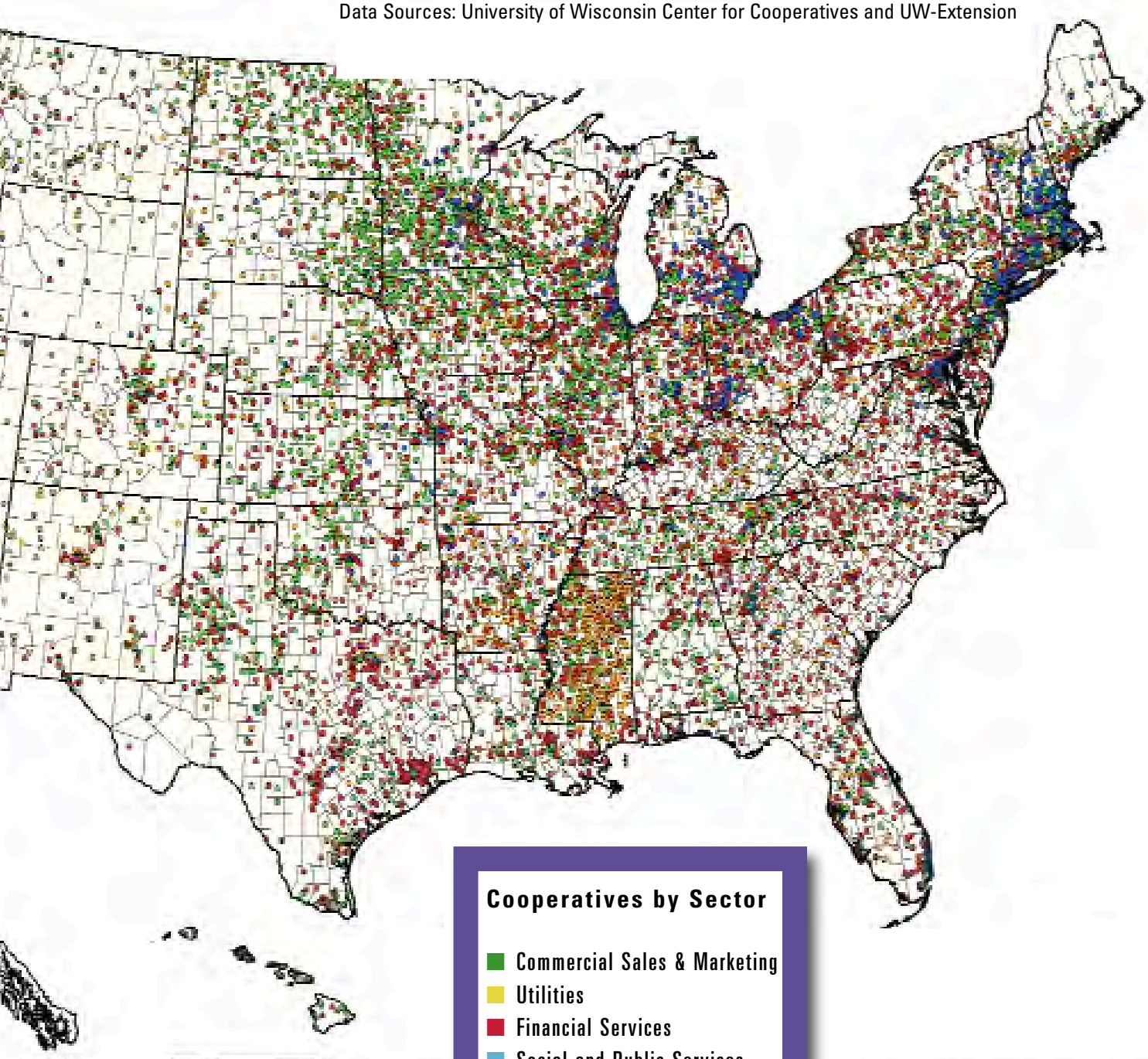
However, there were sectors or situations in which organizations met some, but not all, of these criteria. For example, co-ops that provide services such as childcare or healthcare may be democratically controlled by their user members, who benefit from the services provided. But as nonprofit educational



or charitable organizations, these co-ops legally do not have owners and cannot make any earnings distributions. Other cooperatives, especially within regulated industries, might include nonmembers on the board who could exercise voting privileges.

This study identified and documented these "boundary" issues in the census; it also delineated boundaries within sectors that could be supported

Data Sources: University of Wisconsin Center for Cooperatives and UW-Extension



by data-collection methods.

Additional research results

Cooperative firms are fundamentally different from other forms of business organization. Simply looking at the magnitude of cooperative business activity provides an incomplete analysis of the wider economic and social influences of cooperatives.

To lay the groundwork for research on more complex impacts, the project also funded eight discussion papers. The papers address methodological and empirical approaches for exploring deeper issues on the economic and social significance of cooperatives, and, in part, will form the basis for subsequent phases of this research project. ■

A Place at the Table

NFU delegates carry family farmer concerns to Capitol Hill, White House

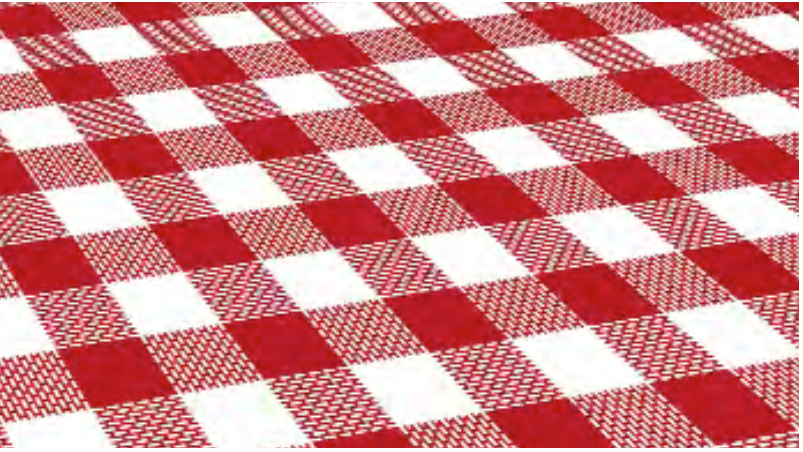
By Dan Campbell, Editor
USDA Rural Development

Standing at the speakers' podium of the National Farmers Union (NFU) annual meeting in Washington, D.C., in March, Wes Niederman was helping to herd a blizzard of NFU policy positions toward resolution. It was a day-long example of democracy in action as 600 members (142 of them voting delegates) from around the nation discussed and debated issues that eventually filled 200 pages of policy positions — many of them issues that could have a major impact on the continued viability of family farming.

Meanwhile, back at the ranch (literally) in North Dakota, it was calving time, and Niederman's family was dealing with a very different kind of blizzard — one that roared down from Canada, dumping 7 inches of snow and driving the mercury to 20 below zero. Luckily, Niederman's daughter, Myra, and a friend were home for a visit and helped his son Matthew (a recent college graduate) ease all those new-born snouts into the cold world of a North Dakota winter.

As much as Niederman needed to be home to help with calving, he says his work in Washington was just as critical to the future of the family's wheat and cattle farm. He and the other NFU delegates passed positions dealing with everything from renewable energy and commodity check-off programs to rural healthcare and conservation.

Delegates to the NFU convention also heard from — and got to question — a who's who of Congressional and



Wes Niederman (right) and his son, Matthew, make plans to seed their wheat crop in North Dakota a few weeks after Wes returned home from the National Farmers Union (NFU) meeting in Washington, D.C. Photo courtesy Niederman family.

Katrina Becker prepares to bottle-feed a new addition to her beef cattle herd. She and her husband took time away from their livestock and the 170 crops they grow in Wisconsin (examples at left and above) to attend the NFU meeting. Photos courtesy Stoney Acres Farm

Executive Branch leaders, including: Agriculture Secretary Tom Vilsack, Speaker of the House Nancy Pelosi, House Ag Committee Chairman Collin Peterson, Senate Ag Committee Chairman Tom Harkin and ranking minority member Charles Grassley, and Rep. Rosa DeLauro, who chairs the Agriculture Appropriations Subcommittee

"There are always some in Washington trying to strip money away from farm programs, so a big part of our effort this year is to make sure the [2008] Farm Bill is implemented as passed," says Niederman.

On any day of the year, farmers and ranchers like Niederman sacrifice precious work time away from their farms in order to attend all manner of ag meetings — ranging from meetings of their local co-op boards, to farm commodity councils and state and national farmers' associations, such as NFU. They do so, in part, because they know that what happens at the point of a pen in Washington and in their state capitals can do so much to help or hinder the work that they do from the seat of a tractor or in their milking parlors.

Staying off the menu

If there was ever a year when it was opportune to hold the NFU annual meeting in Washington, this was it. With the nation in the grips of the worst economic recession since the 1930s, family farmers must intensify efforts to ensure that their voices are heard in the halls of Congress, says newly elected NFU President Roger Johnson.

"In Washington, if you don't have a place at the table, you will have a place on the menu," says Johnson, who is taking the reins at NFU after 12 years as North Dakota agriculture commissioner. He succeeds Tom Buis, who is now working at Growth Energy,

which promotes biofuels.

Working on Capitol Hill is nothing new for Johnson, who still owns the farm his grandfather started 100 years ago and on which he grew up. As former president of the National Association of State Departments of Agriculture, he is well versed in the realities of the legislative process, and he has also devoted much effort to helping consumers better understand where their food comes from and what it takes to produce it.

The NFU meeting included time for delegates to form teams that visited congressional leaders from their various states to discuss vital farm issues; Johnson and the NFU board of directors did the same with White House officials.

Key to the NFU lobbying blitz was to take those 200 pages of policy positions and boil them down to a page or two of the most pressing issues. High on that list is NFU's support for a national energy policy calling for 25 percent of the nation's power to be generated from renewable resources by the year 2025. This translates into support for biofuel and wind power, as well as efforts that promote local ownership of renewable energy in order to keep more of those energy dollars home in rural America.

Another top issue for NFU is support for improved rural healthcare, which Johnson says is essential if rural communities are to hang on to their population and attract new residents. NFU is also advocating for a mandatory "cap-and-trade" system for carbon credits. The latter position puts NFU at odds with some other major farm groups. But Johnson is convinced NFU is taking the right path.

Roger Johnson (right) is sworn in as the new NFU president, succeeding Tom Buis (center). Photo courtesy NFU

"These [low] milk prices are the worst event of my life," says dairy farmer Joaquin Contente, NFU state director for California. He says industry concentration bears much of the blame for the disparity between farm and retail milk prices. Photo by Apolinar Fonseca, courtesy Hanford Sentinel

"Climate change legislation will almost certainly result in farmers having to pay more for energy and fertilizer," Johnson says. He thinks these higher prices can be offset — and hopefully even become a net gain for farmers — if producers are rewarded with carbon credits for adopting environmentally friendly farming practices, such as no-till farming, re-establishing permanent vegetation and adopting advanced grazing techniques.

"This [environmental legislation] is huge, and agriculture must have a place at the table," Johnson says. The key to earning carbon credits, which farmers could then sell on the carbon-trading market, is to show that farming practices are sufficiently different from standard practices and that there is science showing that these practices result in carbon sequestration.

Farmers aren't the only ones who can benefit from such policies. Johnson notes that city leaders in Fargo, N.D., are earning revenue by drilling holes at landfills where methane gas (generated from decomposing trash) is compressed and stored, then sold to a food-processing plant, which burns the gas for heat. Pound for pound, methane gas is considered to be a far bigger culprit of global warming than carbon, which is one reason interest is growing among dairy farmers in processing methane gas from manure (see related article, page 14).

Dairy farmers struggling

"I keep reading that rural America hasn't really been hurt by the economic downturn," says Niederman. "But that just isn't true. When the economy went south, our commodity markets went down with them." And when that happens, virtually all of rural America feels the pain to some extent, he notes.

No one knows that better this year

Kick-starting the rural economy with renewable energy

With 200 pages of policy positions adopted during the National Farmers Union annual meeting, most issues important to farmers and rural communities are addressed in one way or another. At the top of the list for many of the delegates is the policy they adopted in support of renewable energy, the concluding portion of which is excerpted below. (The full text of all the policies is online at: http://nfu.org/about/policy).

"BE IT RESOLVED, National Farmers Union supports the following policies that demonstrate a commitment to expanding renewable energy and creating additional financial opportunities through ecosystems services and markets:

- Federal incentives for local ownership in renewable energy production to ensure economic benefits stay in local communities;
- Expansion of the ethanol blend wall above the current 10 percent;
- Cultivation of the renewable electricity marketplace through enactment of a federal Renewable Portfolio Standard (RPS) to require a measureable percentage of the market to be supplied by new, renewable energy;
- Support for Landowner Wind Associations (LWA), to facilitate existing and emerging LWA's in assessing and marketing wind resources to project developers.
- Full funding for research and development of renewable energy technologies, including efforts to address infrastructure requirements; and
- A permanent expansion of renewable energy production tax credits, including those for wind and solar production, including an option to take grant funding in lieu of tax credits.

Democracy in action: NFU delegates cast their ballots at NFU's annual meeting in Washington, D.C. Photo courtesy NFU

THEREFORE BE IT FURTHER RESOLVED, in supporting a national, mandatory carbon emission cap-and-trade system to reduce non-farm greenhouse gas emissions, NFU outlines the following priorities for pending climate change legislation:

- Providing USDA with authority to implement agricultural offset programs;
- Eliminating an artificial cap on the use of domestic offset allowances;
- Ensuring legislation does not unfairly undermine the full value of agricultural offset activities;
- Empowering USDA to develop effective scientific modeling tools to measure carbon sequestration on farms;
- Recognizing early actors who have already undertaken greenhouse gas emission reduction activities; and
- Allowing producers to stack credits and ensure that projects in greenhouse gas offset markets are not excluded from also participating in other environmental service markets."

than dairy farmers like Joaquin Contente, a delegate from Hanford, Calif., where he runs a 700-cow dairy farm with his brother. The Contente family has seen its milk check about cut in half during the past year.

"These milk prices are the worst event of my life," says Contente, who in March was losing about $75,000 per month on his operation. He has been averaging just $9 per hundredweight of milk sold, down from nearly $20 a year ago; he needs $15 just to cover costs. At the same time milk prices were plum-meting, he has had to pay record-high prices for the corn fed to his herd while also contending with soaring fuel bills.

While he hasn't yet seen many farm failures in his area, "many farmers are hovering on the brink," Contente says. "Younger farmers who are just building their herds and don't have much equity built up in their farms are especially vulnerable. Many are on the edge."

What really bothers Contente is that grocery store prices for milk have not shown a similar drop in price to what farmers are experiencing. He thinks a big part of the blame is concentration in the food industry, resulting in ever-fewer food companies that control more and more of the retail market.

"We have about four huge food

companies that end up touching almost all of our milk in one way or another before it reaches the consumer," he says. "That's a big part of the problem facing us: the lack of a functioning, truly competitive marketplace due to concentration."

Contente says he thinks some national farmer associations have become too closely tied to big food companies, and have lost their focus on the farmers they are supposed to be helping. NFU, on the other hand, "is a true, bottom-up farm organization that has only one purpose: to support the causes of family farmers," he says.

Organic growers succeed with CSA

Wisconsin member Katrina Becker represents a growing segment of NFU: young organic vegetable and fruit farmers. She and her husband, Tony Schultz, grow 170 different crops on 120 acres on their Stoney Acres Farm near Athens, Wis. — everything from broccoli to raspberries, Jerusalem artichokes and sour cherries. The family also raises grass-fed beef.

They started a Community Supported Agriculture (CSA) project three years ago, and this year added a neighboring farmer who provides eggs. So far, the CSA has far exceeded expectations. It started with 72 members the first year, but in just three years has grown to 145 families in nearby communities.

Members pay either $460 or $300 for 20 weekly produce deliveries, the amount depending on their share size. The deliveries begin the first week in June and last until mid-October — with an optional final delivery around Thanksgiving. Members include a community hospital that enrolled in the CSA on behalf of its employees. "We've got all the members we can supply right now," Becker says.

Her goal is to expand the CSA by forming a small co-op with several other farmers — maybe even bringing in some beginning farmers interested in buying land near her farm, where she says farmland is still relatively affordable. Becker would also like to start a processing kitchen where farmers could further process food — producing everything from dairy foods to wine and beer. She also thinks the area has great agri-tourism potential.

Becker and Schultz are the type of business-savvy young farmers that NFU is looking to as the future of family farming. As such, they have been picked as an NFU Enterprise Couple, a program under which NFU provides members with training opportunities to further enhance their abilities as future leaders.

"We were attracted to NFU because of its progressive, pro-family farmer policies, its democratic functioning and the fact that it is very influential in Wisconsin," Becker says.

A highlight of the trip for her was the time on Capitol Hill visiting the Wisconsin Congressional delegation. "We talked about many issues, such as the need for dairy price supports, concerns about market concentration, our support for conservation programs and the need for more programs that help small farms."

Growers of vegetable, fruit and other specialty crops qualify for few, if any, federal support programs, she notes. One way to help them is to offer more benefits for those who use conservation practices in their farming.

Despite the success of her family farm, Becker says she is very concerned about the small dairy farmers all around her farm. They have suffered severely with the drop in milk prices. She, too, views concentration in the food industry as one of the major problems facing farmers. Becker questions why "anti-monopoly laws are so toothless, or are not being enforced."

NFU President Johnson agrees, saying concentration in the food industry has long been a top concern for NFU. "We've pushed the Department of Justice to disallow the mergers that have resulted in these huge food conglomerates, but without a lot of success. As we've seen with the banking industry during the current financial crisis, no company should ever be allowed to become 'too big to fail.' We're all having to pay for the consequences of that now."

Of course, one of the most effective tools that can help farmers counteract concentration in the marketplace is through the use of cooperatives. Johnston points out that the roots of NFU are in the cooperative movement, and that the organization has always shown strong support for cooperatives.

"Cooperatives play a big part in NFU. In North Dakota and much of the Midwest, cooperatives formed the foundation that agriculture was founded and built upon," Johnson says. ■

Against the vast panorama of the high plains of western North Dakota, Wes Niederman applies an identification tag to a calf. Photo courtesy Niederman family

Tri-State to build largest co-op solar power plant

This computer-generated graphic shows massed solar panels that will comprise part of the 500,000-panel, solar-energy farm being built near Cimarron, N.M., by Tri-State Generation and Transmission Association. Photos courtesy Tri-State

By Anne Mayberry
Utilities Programs
USDA Rural Development

If all goes according to plan, by the end of next year one of the largest solar projects in the world will begin generating enough electric power to meet the needs of 9,000 homes in New Mexico. Tri-State Generation and Transmission Association, based near Denver, will work with Tempe Arizona's First Solar Inc. to develop a 30-megawatt (AC), 500,000-panel solar voltaic power plant. The Cimarron 1 Solar Project is the largest photovoltaic project by an electric cooperative.

"Tri-State is committed to renewable energy in our resource planning that brings value to our member cooperatives across the four states we serve," says Ken Anderson, Tri-State's general manager. It is noteworthy, Anderson adds, that Tri-State's first utility-scale renewable energy project will be among the largest worldwide.

"This is a significant venture for Tri-State that meets several objectives identified by our board of directors," Anderson says. "It further diversifies our generation mix, it assists us in addressing carbon emissions and it helps meet our members' renewable energy requirements."

Colorado and New Mexico require renewable energy to compose 10 percent of electric utilities' portfolios by 2020. Tri-State is working with its distribution cooperatives — electric cooperative utilities that provide service directly to consumers — to meet that goal. The project will be located on a 250-acre parcel of land in Colfax County in northeastern New Mexico.

As many as 140 construction employees are expected to work on the facility. By August of 2010, the first portion of the new power plant is expected to be operational. First Solar will serve as the engineering, procurement and construction contractor. It will also monitor and maintain the plant.

"The advantage of the location selected is that the land is in the service territory of Springer Electric Cooperative, one of Tri-States' 12 New Mexico distribution co-ops," says Jim Van Someren, Tri-State's communication manager. "This territory is solar rich and adjacent to an existing transmission line, so no new transmission is needed."

Tri-State is also looking at wind power as another component of its renewable portfolio, says Van Someren. For Tri-State, however, solar power offers another advantage. "One of the additional attractions of this project is that we expect it will produce near or at the peak when demand for power is greatest — on those hot summer days."

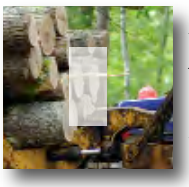
Does Tri-State have plans for additional solar facilities?

Van Someren quotes General Manager Ken Anderson: "You'll note that we're calling this project 'Cimarron One.'" ■

Waste Not

Large and small Minnesota dairy farms use manure digesters to produce methane gas

By Stephen Thompson
Assistant Editor



In the heart of Minnesota's dairy country, two dairy co-op members are looking to a future in which farm waste will be used to supplement America's supply of electric power. Both are using technology that reduces pollution, greenhouse gas emissions and, hopefully, farm operation costs.

Methane digesters have been around for more than 100 years. Using the action of bacteria, they ferment manure and other organic waste to generate a mixture of CO_2 and methane, called "biogas," that can be burned to power electric

generators. Municipal sewage-treatment plants around the country have used digesters for decades to help dispose of sewage sludge. They are also used to create power from farm wastes on a large scale in western Europe.

But in the United States, use of the technology on farms has yet to become significant. Dairy farmers Dennis Haubenschild and Jerry Jennissen hope to change that by running biogas generators that contribute significant amounts of power to the grid, and make money for their owners in the bargain.

True believer

Haubenschild is a true believer. "I know what happens when you're non-sustainable," he says. In 1953 when his father purchased the land Dennis farms today in Princeton, Minn., it had been completely exhausted by years of crops grown without replenishing the sandy soil. "The humus was just gone," says Haubenschild. "It took years to get it productive again."

His interest in sustainable farming has led him to try a number of unconventional measures on his 868-cow dairy farm, including solar heating a cow barn, water conservation and recycling. But the centerpiece of his conservation effort is an electric generator run by methane produced from his cows' manure.

"A day's worth of manure from 100 cows gives you the energy of one barrel of oil," he says.

The methane is produced by a plug-flow digester, a relatively low-tech method that uses a large, plastic-lined pit, covered by another plastic membrane. The manure and bedding are scraped from the floors of the cow barns and milking parlor twice a day and pumped into one end of the digester. As it flows the length of the digester, it ferments, releasing methane gas, which is scrubbed of harmful hydrogen sulfide and dried before being piped to an engine-driven generator.

Some of the waste heat from the methane-powered engine is used to keep the digester at optimum temperature; some warms the cow barns and milking parlor in cold weather, saving hundreds of gallons of fuel per month.

At the other end of the digester, after about 25 days, the fermented manure is run through a mechanical separator that squeezes out most of the moisture. The resulting fluid is piped into a lagoon; the solids, which are free of most pathogens due to the heat of the fermentation, are used as bedding for the cows.

It's an elegantly simple, but effective, process. The fluid digestate is rich in plant nutrients, and — as a result of the digestion — is nearly odorless.

Standing next to the waste lagoon, the odor reduction benefit is instantly, and pleasantly, noticeable. Just a few feet away, one wouldn't even know the lagoon is there, whereas the stench from conventional dairy manure lagoons often attracts the wrath of neighbors, municipalities and environmental authorities.

Environmentally friendly fluid

The digested fluid is environmentally benign; if it should get into local waterways due to runoff or floods, it shouldn't kill fish and other aquatic life. And its 7.8 pH level means it can be spread on cropland without risk of burning crops.

Those are huge advantages at a time during which livestock operations and dairy producers are coming under increasing scrutiny by environmental groups and regulators over the smelly, toxic contents of their manure lagoons.

"We've doubled our output of alfalfa since we started using the digestate for fertilizer," says Haubenschild. "We used to get three cuttings a year; now we get five. And it doesn't smell when we spread it on the fields."

The liquid is also easier to use. "It used to be that we'd spend two days just stirring the pit to get it to where we could use it for the fields. Now we get a

Dennis Haubenschild's heifer shed reflects his progressive approach to farming, with composted bedding affording a clean, comfortable environment for dry and gestating cows. A pond and marsh (facing page, top) provide an attractive wildlife habitat on the doorstep of Jerry Jennissen's dairy barn and methane digester. USDA photos by Stephen Thompson

little separation from snow-melt, but mostly we can just pump it out."

The rest of the farm also reflects Haubenschild's progressive attitude toward agriculture.

"Everything's designed to increase efficiency and cow comfort," he says. That's reflected in the shed set aside for dry and gestating cows. The bedding is composted — mixed up twice a day with a chisel plow. The result is a fermentation process that keeps down odors and provides a comfortable, acceptably clean and dry substrate for the cows. Haubenschild even bales the plastic from his plastic feed storage bags for recycling. "I had a deal with my supplier for them to accept plastic back for recycling," he shrugs. "That worked until the competition got down to one."

Haubenschild's farm is well-regarded by University of Minnesota agriculture professor Marcia Endres. "He's a pioneer," she says. She regularly brings classes on field trips to the farm to analyze and learn from the operation.

"We really appreciate his collaboration," she says. In return, Haubenschild gets the benefit of fresh eyes.

Advancing fuel cell technology

The most ambitious of Haubenschild's experiments in sustainability is the result of help from Deere & Co. and a partnership with the Dr. Philip Goodrich,

Jerry Jennissen installed a methane digester on his farm in partnership with Genex Cooperative, to see if the technology is practical on a relatively small, 155-cow dairy farm.

Bigger methane role for farmer co-ops?

Can farmer cooperatives play a larger role in promoting the recycling of manure into methane gas? In their new report (see page 39 for ordering information) USDA Ag Economists Carolyn Liebrand and Charles Ling raise possibilities that a cooperative approach could address the challenges of adoption of this technology through improved negotiating strength, technical assistance for digester design, installation and operation. They also suggest a possible role for co-ops in management and marketing services and/or financial guidance and assistance.

Cooperative efforts may allow milk producers to remain focused on milk production while lowering costs and/or increasing returns from energy and byproduct sales. The July-August issue of *Rural Cooperatives* will present a summary of the possible benefits from group efforts to adopt anaerobic digester technology.

an associate professor of biosystems and engineering at the university. This effort involves a hydrogen fuel cell laboratory, set up to produce electric power from hydrogen extracted by the digester-produced methane.

Deere provided the grant to build the facility, with an eye towards possible future use of fuel cells in methane-powered farm equipment. The advantage of fuel cells is that they are more efficient at producing energy than generators driven by internal combustion engines.

Unfortunately, says Haubenschild, the money to operate the lab has dried up for the moment, leaving it idle.

Nevertheless, Haubenschild is optimistic about the potential of fuel cells. He points out that high-temperature designs now being developed, known as molten carbonate cells, can use methane gas directly, without first putting it through a catalytic cracker to separate the hydrogen.

And he sees another possible use for hydrogen extracted from biogas: ammonia production. Anhydrous ammonia for use as fertilizer is usually produced from hydrogen obtained from natural gas. Haubenschild thinks the production process is simple enough that small, decentralized production facilities could use hydrogen obtained from digester gas.

Power grid issues are complex

The big question, of course, is whether the digester pays its way through the sale of power. Haubenschild is on the grid of a local distribution cooperative, but selling the power he makes is complicated.

Minnesota law requires that electric utilities purchase some of their power from renewable sources — such as digesters and solar and wind generators. Amounts of power less than 40 kilowatts are purchased under net-metering agreements. Under such an agreement, power provided to the grid is paid for at the same rate as the utility charges the customer.

However, Haubenschild's generator produces much more than that, so the rest is paid for at a much lower rate, not by the distribution co-op, but by the distribution co-op's generation supplier.

Nevertheless, Haubenschild says the generator more than breaks even. He doesn't elaborate, but his digester has been in operation for 10 years — long enough to work out the kinks.

Smaller farm also tries it

In contrast, Jerry Jennissen's digester, installed in December, 2007, is just getting started. His farm, about 90 miles west of Haubenschild's, near Brooten, Minn., is small in comparison; he currently milks 155 cows. But his digester and generator setup could be a prototype for other smaller dairy farms, if a few problems are worked out first.

Jennissen's opportunity to build a digester came when The Minnesota Project, a nonprofit based in St. Paul, received a state grant through the Legislative-Citizen Commission on Minnesota Resources — a state government entity that recommends environmental and conservation projects for funding from Minnesota Lottery monies. The Project, in partnership with Genex Cooperative, a beef and dairy services co-op, was looking to develop a manure digester that would be feasible for use by small and medium dairies.

With the help of the Minnesota Milk Producers' Association, Jennissen's operation was chosen from a number of interested farmers to host the prototype, and a request for proposals resulted in the selection of a Utah-based company, Andigen, to supply the digester.

Andigen's digester is a modern, vertical design called an Induced Blanket Reactor (IBR), and resembles a small silo attached to Jennissen's cow barn. A far cry from the old style plug-flow digester, it can process the manure from up to 200 cows in a cycle that takes about five days, instead of a month.

Because it only has to hold about five days' worth of manure, it can be much

From left: Haubenschild describes the process of converting manure into methane gas; a computer monitors the workings of Jennissen's system; inside Haubenschild's milking parlor.

smaller and less expensive. It's easy to dismantle and sell if the farm shuts down, and it's just as easy to add a second digester if the farm expands. And because it demands a slurry of about 8 percent solids, the design lends itself to the digestion of a wide range of substances, including pig manure, which give plug-flow digesters "indigestion" because of its high water content.

Computer allows remote operation

The digester and generator are monitored and controlled by computer, with an Internet connection making it possible for the co-op to run them remotely. The whole installation fits nicely in a new addition built onto Jennissen's cow barn.

In addition to the state money, funds from USDA Natural Resources Conservation Service's Environmental Quality Incentives Program, the North Fork Crow River Watershed District, Stearns Electric Association (the local electric cooperative), plus a considerable investment by Jennissen paid for the installation.

Jennissen says the original proposal called for the digester to be completely enclosed, but he chose instead that it be mostly exposed, to save money. About a quarter of the cylinder is attached to the barn structure, and Jennissen had the exposed portion insulated with three inches of plastic foam against the frigid winter winds that come roaring down from Canada. A coil of tubing around the tank's midriff carries hot coolant from the generator engine when needed to keep the fermentation at the proper temperature.

Unfortunately, the setup has had its share of teething problems. When *Rural Cooperatives* visited, the generator was offline due to a failure of the methane engine — the second such failure in a few thousand hours of operation. Gas from the generator was being burned off in a flare.

For some reason, the engine, which is an automotive V-8 adapted for stationary use, was suffering accelerated cylinder and bearing wear. The cause was not clear. Was the operating temperature too low, the generator speed too low, or was hydrogen sulfide in the digester gas the problem?

Rolly Meinke, Genex's representative in charge of the digester project, came out to the farm to inspect the damage. Unwilling to let such problems get in the way of the project, he arranged to replace the power plant with an industrial engine designed for natural gas, which runs at a higher operating temperature and speed.

Striving for greater efficiency

Meanwhile, Jennissen, Meinke and Joe Borgerding, an electrician who helped with the initial installation, are looking for ways to raise efficiency and increase cash flow. Borgerding, a trained auto mechanic who in his youth worked on drag racers, has become intensely interested in the project. He is working on developing an engine-generator package he thinks will increase output and longevity — possibly doubling power output.

Jennissen and Meinke are looking for ways to raise methane production by adding substances to the fermentation process. Associated Milk Producers Inc., a nearby marketing co-op, has agreed to supply waste whey to the project.

"We've already sent a sample to Andigen," says Jennissen. "With 2,500 gallons a day we could double methane production." Even restaurant grease will work. And Dennis Haubenschild is looking into the possibility of using waste alcohol from a nearby distillery as a fermentation booster.

Jennissen has also experimented with raising the fermentation temperature slightly, and is thinking of trying fermentation with thermophilic bacteria, instead of the mesophilic currently used. The conversion consists merely of raising the temperature of the tank from its current 105 to 125 degrees.

"I'm hoping maybe we can find a sweet spot that will produce more methane and less sulfur compounds," he says. He's also interested in current research to develop bacteria that reduce production of hydrogen sulfide.

The number of variables seems daunting, but both Jennissen and Meinke are convinced that with enough time and creative effort, the digester can become economically efficient. Jennissen's electric distribution cooperative, Stearns Electric Co-op, has promised to buy any power produced over the 40-kilowatt level at 6.5 cents a kilowatt-hour. "Pretty much everyone I've dealt with has been very supportive," Jennissen says.

Project manager optimistic

Ryan Stockwell, Clean Energy Program Manager for The Minnesota Project, is optimistic about the use of digesters on Minnesota farms, but says, "Changes need to be made."

Part of the problem, he says, is the low cutoff for mandated net-metering power purchase agreements. Forty kilowatts isn't much; even Jennissen's small operation will produce substantially more when it's up to speed. And the low rates offered by apparently reluctant power utilities for power provided in large amounts are a serious concern.

Next door, Iowa has mandated 500 kilowatt net-metering, while Pennsylvania requires power providers to accept up to three megawatts from non-residential customers. Stockwell says there are efforts in the state legislature to raise net metering requirements for solar- and wind-generated power, but currently not for digesters.

Stockwell thinks any pricing system should take into account benefits beyond the production of power. "We're not putting a price on benefits like pathogen, odor, pollution and CO_2 reduction," he says. "The pricing doesn't match the benefits."

Then there's the issue of establishing the technology. "We need to develop the institutional knowledge and the market," Stockwell says. "It's kind of a chicken-and-egg thing. You need an established market to get economies of

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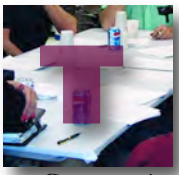
Legal Corner

Co-op directors must adhere to high standards of conduct

Regardless of whether they sit on the board of a billion-dollar federated co-op, or a small local farm supply co-op (above), directors must adhere to the high ethical standards expected of cooperatives. USDA photo

By Stephanie M. Smith, Senior Legal Adviser
Cooperative Programs, USDA Rural Development

Editor's note: After a lengthy absence, the Legal Corner column is back to provide valuable information on legal, policy and tax issues affecting cooperatives.



Transparency in corporate business activity is no longer an option. The line in the sand drawn by Main Street dictates that Wall Street provide complete accountability for financial actions.

Cooperatives are not immune from this level of scrutiny. Indeed, cooperatives have to be especially diligent about the public perception of their business practices because they represent the interests of member-owners, rather than investors. Co-op members expect, and demand, the highest level of ethical conduct by their directors.

This article summarizes the standards of conduct required of co-op directors and some of the unique challenges they face.

Directors are held to three standards of conduct: 1) duty of obedience; 2) duty of care and 3) duty of loyalty to the company or organization for which they serve and act in good faith as decisionmakers.

Director responsibilities include: governing the organization by establishing broad policies and objectives; selecting, hiring, supporting and reviewing the performance of management; ensuring the availability of adequate financial resources and accounting to the stakeholders for the organization's performance.

When directors breach their duties, they can be held personally liable to the organization for any injury it may have suffered due to the breach.

Cooperative directors must conduct themselves at an even higher level than other directors due to the complexity and nuances of how cooperative businesses are structured. Co-op directors also must be strong supporters and patrons of the cooperative and must understand its unique role in business.

Duty of obedience

Directors must exercise their powers for a proper purpose. They must ensure that they — and the cooperative — do not engage in illegal or improper actions. Decisions must be based not only on generally applicable laws, but laws that are especially applicable to cooperatives.

It is critical that co-op directors have a reputation for integrity, honesty and respect for the law. This also means seeking appropriate legal counsel to assist the board.

Duty of care

Directors exercise control and management over the company on behalf of the company. Although the duties of directors are several, they must exercise those duties jointly.

Directors have the added pressure of maintaining the

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A Legacy of Cooperation

Plunkett Foundation still follows founder's vision of co-ops as force for sustainable rural development

By Mike Perry
Research and Communications Manager
Plunkett Foundation

"By George, that's it! I'll megaphone it to the world!"

These were the words of President Theodore Roosevelt when he read Sir Horace Plunkett's plans for sustainable rural development in the United States and beyond.

Anglo-Irishman Plunkett, the pioneer of farmer cooperatives in Ireland, spent 10 years ranching in Wyoming when he was a young man. This period of his life influenced his thoughts and actions about the cause to which he dedicated the majority of his life: helping rural people to believe in what they can achieve by working together.

In Wyoming, Sir Horace learned the importance of enterprise and the value of self-help efforts. He also learned that by coming together to tackle common issues, farming and rural communities can be places where people can live and work — now and in the future.

Sir Horace began looking at cooperation after seeing the impact of the industrial revolution on rural areas. At this time, rural people were beginning to leave their communities to seek employment and the hope of a better life in cities.

He saw that there were two choices for rural communities. They could either let the full impact of the industrial revolution sweep over rural communities or, as he advocated, rural people and communities could come together and use cooperative enterprises to provide economic and social development in their communities.

Much of Sir Horace's work at this time was focused on establishing successful cooperative creameries in Ireland.

The Plunkett Foundation, founded by Sir Horace in 1919 to implement his vision internationally, is celebrating 90 years of helping rural communities to believe in what they can achieve together. It believes that Sir Horace's blueprint

Co-op members help harvest crops at one of the Stround Community Agriculture farms. It is one of the growing number of Community Supported Agriculture projects in the United Kingdom. Photos courtesy the Soil Association


FRIDAY 29 AUG SH
500g potato
500g carrots
400g onion
240g runner beans
300g tomato
2 apples PYO fro
50g coriander
300g courgettes
1 lettuce
1 cucumber
P.Y.O spinach & chard
WEEDING day on Sat
ALL welcome ~ bring a
AUGUST BBQ in the
for members

for sustainable rural development is even more relevant today.

Plunkett's core values

Plunkett believed in three core values which influenced his life's work. These are:

- Economic solutions create social change;
- These solutions enrich rural life;
- Self-help is the most effective way of achieving goals.

These values came together in the phrase Sir Horace is best known for: "Better farming, better business, better living."

By "better farming," he meant rural businesses using the best technology and methods available. By "better business," Sir Horace was referring to cooperative business, which he strongly believed to be the best business model. Lastly, "better living," relates to Sir Horace seeing a need for an increase in the standards of living in rural communities. This was crucial, because he believed that economic improvements must lead to social improvements. No rural cooperative should forget its community roots or it will likely fail as a business, he stressed.

Seb Peis, a founding member of the Thames Valley Farmers' Market Cooperative, helps manage farmers' markets in 14 towns.

For the past 90 years, the Plunkett Foundation has been dedicated to raising awareness worldwide of cooperation and its potential for helping farmers and rural communities to help themselves.

Peter Couchman is the new chief executive officer at the Plunkett Foundation.

In the early years of the Plunkett Foundation, a conference was held in London which brought together those involved in farmer cooperatives from across the world. At this event, it was agreed that there was a need to collate, analyse and distribute information related to farmer cooperatives internationally. On this same day, it was proposed that the Plunkett Foundation become a clearinghouse on information relating to farmer cooperatives.

This role — as a center for ideas and information — is still a core aim of the Plunkett Foundation, which it accomplishes through sharing and receiving information worldwide.

Taking control with co-ops

The common challenges facing rural communities across the world are heightened by greater distances, a more dispersed population and lack of access to employment and services. Through cooperation, Sir Horace believed that farming and rural communities can take control and provide sustained economic and social development.

Consumers, farmers share risks and rewards of organic farm

Stroud Community Agriculture (SCA) is a cooperative that is pursuing a new model for sustainable farming in England. It builds on cooperation and mutual support so that the risks and rewards of farming are shared between the farmers and consumers.

SCA is a community supported agriculture (CSA) effort, but with a twist on the most common CSA model found in America. In the case of SCA, the consumer-members actually own the co-op and hire farmers to run the farm for them, although members are encouraged to do volunteer work on the farm.

Consumers who join the co-op commit themselves to supporting the farm and providing a fair income for the farmers. Farmers can then develop the health and fertility of the farm, its wildlife and the environment.

The farm consists of two plots, each covering about 23 acres in the beautiful countryside of Gloucestershire (home to Prince Charles and Princess Anne) about 100 miles west of London. Two full-time farmers grow organic vegetables and raise the co-op's pigs, cows and sheep; there are also a part-time farmer and an apprentice. Long-term plans envision starting a dairy herd, raising chickens/eggs and growing various fruits, as well as doing more food processing.

Increasingly, farming and rural communities are developing innovative ways of addressing the challenges they face. For instance, in the United Kingdom, there are now 200 rural communities that have set up cooperatives to own and run a general store — often the last general store in the community.

There are also examples of community-owned cafes, post offices and even swimming pools. Rural communities are also increasingly using cooperative enterprise approaches for local food production and acquiring supplies. More recently, co-op approaches are being used to address health needs. A growing number of farmers have also set up cooperatively run farmers' markets.

These are all examples of rural communities and farmers using cooperation to take control.

Today, the Plunkett Foundation is involved in a wide range of activities with the aim of promoting and supporting cooperative enterprise in rural communities worldwide. Sir Horace believed that his work needed the twin approach of education and cooperation.

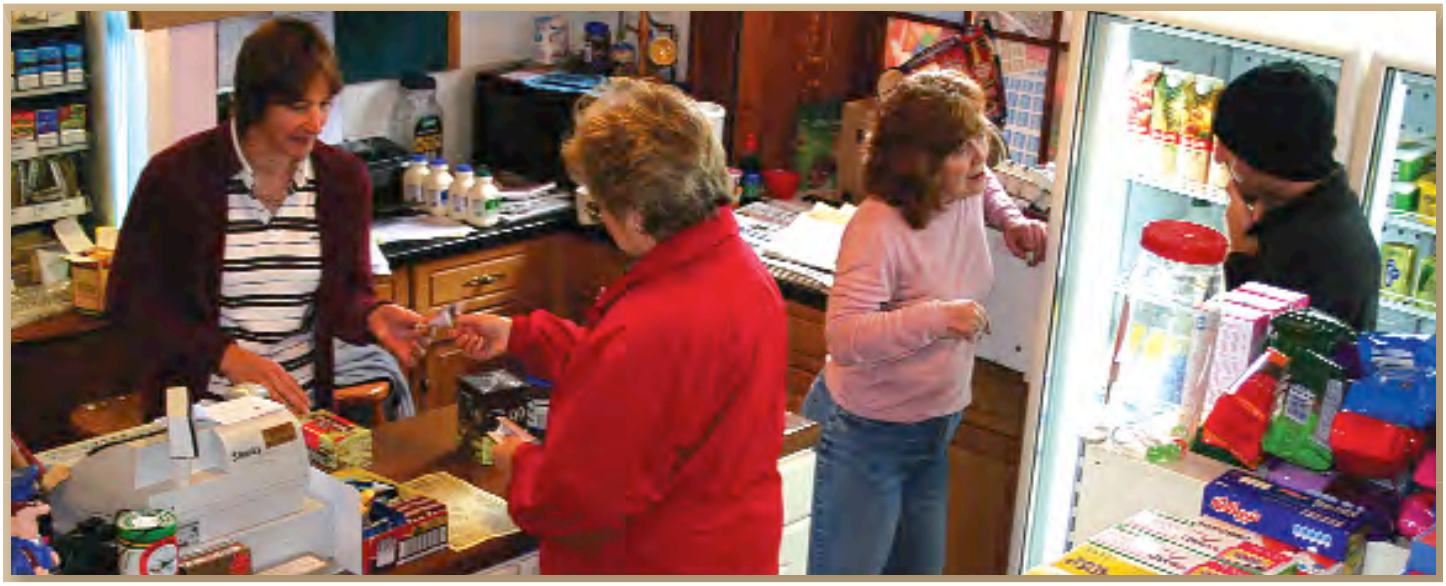
By education, he was referring to raising the awareness of the cooperative potential to farmers and rural communities, sharing information and best practices and creating an environment where rural cooperative enterprises can thrive. Central to the education role is giving rural communities the belief of what is possible through cooperation.

By cooperation, Sir Horace was referring to direct support to help rural cooperatives become established, develop and prosper. These two twin pillars still form the basis of the Plunkett Foundation's work.

Couchman to lead Foundation

In April, the Plunkett Foundation appointed Peter Couchman as its new chief executive. For the previous 25

More than 200 rural communities in the United Kingdom have established cooperative general stores. Cooperatives that forget their community roots will likely fail, Horace Plunkett believed.



SCA is managed by an elected "core group" of volunteers who meet once a month. Meetings of the whole membership are held to discuss the direction of the farm. Decisions regarding purely farming issues are delegated to the farmers.

Members are provided with produce year around. Seasonal gaps in production are covered via purchases of organic vegetables from other farms, using local suppliers wherever possible (and never purchased from outside Europe).

Co-op members pay a monthly fee of 35 pounds per share (about $52) to receive produce and meat (pork and beef). All the produce from the farm is shared between the supporting consumers, or (if there is a surplus) is sold locally.

Begins with only a vision

The co-op grew out of a strong interest in finding a source of locally produced, organic food. "We began with no land, no farm, no money and no members," says Jade Bashford, one of the co-op founders. "All we had was a vision."

Starting with a one-acre plot in Brookthorpe in 2002, the farm later expanded to 23 acres near Hawkwood College on the outskirts of Stroud, then expanded again with an additional 24 acres leased near Brookthorpe.

The expansion of the farm meant that more members were needed to ensure that the project remained viable. A membership drive was launched, supported by a grant from the National Lottery Seed Program's "Growing Home" initiative.

The grant paid the salary for a marketing person who could actively promote membership to a wider circle and produce a membership brochure. The money also helped pay for some much-

years, Couchman has worked in the consumer cooperative sector and has also been involved in a wide range of activities that have promoted cooperation worldwide.

"I believe that the Plunkett Foundation's approach is the model for farming and rural communities worldwide," says Couchman. "Rural people have the answers — our role is to help them to believe in what they can achieve together."

From 1922 to 2001, the Plunkett Foundation published the *World of Cooperative Enterprise*, a leading publication on cooperation. This publication included contributions from cooperative thinkers and practitioners from across the world.

As part of the 90th anniversary celebration, the Plunkett Foundation will be re-launching the publication in a modern form. The reason, as Couchman says, is that "Good ideas come from farming and rural communities across the world. By spreading new ideas, fresh thinking and different approaches, all of those involved in cooperatives across the world have the opportunity to cement cooperative enterprise as the business model for farming and rural communities."

During 2009, the Plunkett Foundation will be looking to re-establish links with organizations it has worked with throughout its history. It is also keen to hear from organizations that share its values and those who would like to know more.

For more information, visit the Plunkett Foundation's website at: www.plunkett.co.uk. ■

needed equipment.

This effort proved very successful, and in less than a year membership had risen to 100, with a waiting list that soon rose to 30 families. By autumn 2007, membership had expanded to 150. Today, membership is approaching 200, which the core group has decided is the optimal size for the farm.

The farm follows a biodynamic philosophy (a holistic method of organic farming that emphasizes balancing the interrelationships of soil, plants and animals as a closed, self-nourishing system). By keeping a herd of cattle, the co-op is able to maintain soil fertility and ensure that good crops of vegetables are grown without relying on external sources of manure and compost. The herd is maintained for most of the year on the farm's own grass and hay.

In order to sell surplus produce and meat on the organic food market, the farm has attained Demeter certification for biodynamic produce (which includes full organic status).

Trip to grocery store can't compare

Members have the option of picking up their produce directly from the farm or from a local pick-up point.

Jade Bashford picks up her produce every Tuesday, using scales there to weigh the posted, per-share allotment of the week's harvest. "It's really a treat to come here," she says of her trips to the farm, which she greatly prefers to the "chore" of going to the grocery store.

But the co-op is more than just a source of organic produce and meat. It sponsors social events to mark the turning of the agricultural year and build a sense of community among the members.

"All members of the cooperative can choose to get involved with the life of the farm and join specific working groups," says co-op member Molly Scott Cato.

Activity revolves around the farm with picnics, shared meals, bonfires, night-time walks, seasonal festivals and children's activities.

Members do not have to contribute work on the farm, although many do, and regular community workdays are scheduled.

As for the future, "We want to encourage the development of more CSAs in our area to feed more local people, and also across the world" says Cato. "We will also look to extend the range of produce we offer." ■

The core principles of Stroud Community Agriculture

- To support organic and biodynamic agriculture;
- To pioneer a new economic model based on mutual benefit and shared risk and ensure that the farmers have a decent livelihood;
- To be fully inclusive. Low income shall not exclude anyone;
- To encourage practical involvement on all levels;
- To be transparent in all our affairs. To make decisions on the basis of consensus wherever possible. To strive towards social justice;
- To offer opportunities for learning, therapy and re-connecting with the life of the earth;
- To network with others to promote community supported agriculture to other communities and farms and share our learning (both economic and farming);
- To encourage members, in cooperation with the farmers, to use the farm for their individual and social activities and celebrations;
- To develop a sense of community around the farm;
- To work cooperatively with other enterprises that share our principles.

Co-op Development Action

Greenhouse grows more than plants — co-op teaches youth about nutrition, community involvement

Adult and youth members of the Attala County Self-Help Cooperative in Mississippi construct a greenhouse, where they will learn about agricultural sustainability. Photo courtesy Daniel Teague

By Rita Simerly
Cooperation Works!

The Attala County Self-Help Cooperative (ACSHC) is helping to expand and strengthen community involvement in Attala County, Miss. ACSHC was formed in 2005 to save rural resources in central Mississippi through the use of educational outreach programs that target small landowners with limited assets. The primary focus of the effort is on agriculture and horticulture.

While the organization serves adults, it also has a number of youth-oriented programs that promote education related to sustaining and preserving natural resources. Inspired by the success of their neighbors at the Winston County Self-Help Cooperative, ACSHC has grown from 12 members in 2005 to 27 paying members today, including four women and 15 youths.

As both a founder and youth coordinator for ACSHC, Daniel Teague is currently focusing on expanding children's participation through the Attala County Youth Greenhouse/Garden Project. This project involves the construction and maintenance of a greenhouse on the Long Creek Elementary School campus in Sallis, Miss. Children from kindergarten to sixth grade are participating in the effort.

Promoting ag sustainability

The greenhouse both serves as an educational tool for agricultural sustainability and helps recruit new members to get involved in the cooperative.

"We brought in youth [to participate] from the lay-out stage when there was nothing on the ground," says Teague. "We let them participate and got them involved. We're letting them take part in every aspect of its construction."

The goal of the project is to inspire children and teenagers to take charge of what, and how, they eat by teaching them about small-scale gardening through hands-on experience.

The importance of healthy eating is especially salient in Mississippi, where about 32 percent of the adult population is categorized as obese, according to the U.S. Centers for Disease Control and Prevention. Because roughly 80 percent of obese children are likely to become obese adults, it is important to begin nutritional education early.

By offering a fun and informative after-school activity, ACSHC not only educates students about sharing and working cooperatively within their community, but about improving their health and lifestyle for years to come.

ACSHC has received local support from members through donations of seeds, building materials, money and volunteer assistance from adults and youth. More funds are being sought for future expansion of the project.

"There has been a melting pot of ways people have assisted us," says Teague, noting that the Greenhouse should be completed this spring. "I've been very pleased with the result." ■

Green Thumbs Up

Interest in community gardens sprouting all across America

Editor's note: compiled from Internet and other sources by Anne Todd.

First Lady Michelle Obama and about two dozen local students from Bancroft Elementary School in Washington, D.C., made national headlines in March when they broke ground for an 1,100-square-foot organic "kitchen garden" on the south lawn of the White House. The garden will grow spring vegetables for the White House and Miriam's Kitchen, an organization that serves homeless people in the District of Columbia.

Although the garden will provide food for the first family, Mrs. Obama says that its most important role will be to educate children about healthy, locally grown fruit and vegetables at a time when obesity and diabetes have become national health concerns. This kitchen garden is the first vegetable garden at the White House since First Lady Eleanor Roosevelt planted her victory garden during World War II. The garden contains 55 varieties of plants; predominantly vegetables.

In February, to commemorate Abraham Lincoln's 200th birthday, Agriculture Secretary Vilsack announced that USDA would convert a 1,250-square-foot section of pavement at its headquarters into a "People's Garden." The name derives from USDA having been created during Lincoln's presidency, which he often referred to as "The People's Department."

The original USDA community garden project envisioned using Embassy window boxes, tree planting and field office plots designed to promote "going green" by retaining water and reducing runoff; using roof gardens for energy efficiency; and using native plants and sound conservation practices.

On April 22 (Earth Day), Secretary Vilsack announced that USDA would expand its original garden concept to include the grounds of USDA's Jamie L. Whitten Headquarters Building, which fronts The National Mall. The first phase of the garden is called the "Three Sisters" Garden, in reference to the Native American tradition of interplanting corn, beans and squash in the same mound. The planting method is a centuries-old, sustainable process that has provided long-term soil fertility and a healthy diet to generations of American Indians.

The garden will also include raised organic vegetable beds, organic transition plots, an organic urban container garden, an organic kitchen pollinator garden, rain gardens and a bat house. USDA is planning to have the garden fully certified organic within three years.

The vegetable garden is expected to provide a large variety and amount of produce, which USDA plans to donate to a local food bank.

Co-op concept extends to gardening

Even before the First Lady announced plans for her garden, interest in community gardening was on the rise. Ecological and food safety concerns and the recession have contributed to this renewed interest.

Some co-ops and quasi-cooperative organizations are

promoting community gardens. A number of co-op food stores have started community gardens for their members. For example, the Hanover Consumer Cooperative Society, which operates co-op food stores in several New Hampshire communities, started a community garden adjacent to the Norwich Farmers Market. Member-gardeners must attend orientation meetings and agree to use only organic herbicides, pesticides and fertilizers on their plots.

Buffalo, N.Y., is home to Urban Roots, a cooperatively owned retail gardening center that offers plants and plant-related supplies. "We know that keeping local dollars in the immediate area benefits all of us," says Blair Woods of Urban Roots. "Our vision is of Urban Roots becoming a replicable model for cooperative garden centers in other urban areas."

Community gardens are springing up nationwide as communities transform vacant lots into green spaces. According to the National Gardening Association, 1 million households participated in community gardens in 2008. Even more impressive is that an estimated 5 million households are extremely, or very, interested in having a garden plot in a community garden located near their home.

First Lady Michelle Obama (facing page) and students from Bancroft Elementary School break ground on the new organic garden at the White House. White House photo by Joyce N. Boghosian.

Gardens are being sponsored by colleges and universities, municipalities, community-development organizations, nonprofits and civic and faith-based organizations.

Community gardens are also being supported by Cooperative Extension services, volunteers and public and private funding sources. Some gardens operate by charging a fee for residents to reserve their plot; other gardens let residents use them for free but request that they donate their extra produce back to local food banks.

The make-up of community gardens varies, depending on the needs and goals of the groups that create them. They can be designed to grow flowers or fruits and vegetables, and laid out as single community plot or as many individual plots. They can be sited on vacant lots, schoolyards, church or hospital grounds, or in almost any neighborhood with some open space. Some community gardens are designed as a series of plots dedicated to "urban agriculture" where the produce is grown for the market.

Numerous benefits

According to the American Community Gardening Association, community gardens provide numerous benefits, which include: improving the quality of life for people who participate in the garden; providing a catalyst for neighborhood and community development; stimulating social interaction; encouraging self-reliance; beautifying neighborhoods; producing nutritious food and reducing family food expense. Other benefits include: conserving resources; creating opportunity for recreation, exercise, therapy and education; reducing crime; preserving green space; creating income opportunities and economic development; reducing city heat from streets and parking lots, and providing opportunities for intergenerational and cross-cultural connections.

Urban Roots, a retail gardening center co-op, engages in urban beautification projects in Buffalo, N.Y., and sponsors educational events for local youth (far left). Photos courtesy Urban Roots.

The American Community Gardening Association estimates that there are 18,000 community gardens in the United States and Canada.

USDA supports community garden projects in a variety of ways, including grants provided through the USDA Cooperative State Research, Education, and Extension Service (CSREES), direct onsite technical assistance and guidance from Extension Service representatives, and guides developed by the USDA Natural Resources Conservation Service and USDA Food and Nutrition Service to help community gardeners improve their production techniques.

To learn more about the USDA People's Garden, visit http://www.usda.gov/wps/portal/?navid=PEOPLES_GARDEN. Tips on starting or joining a community garden project are included in USDA's "We Can" publication at http://www.fns.usda.gov/fsec/FILES/wecan.pdf. Or, visit the American Community Gardening Association website at http://www.communitygarden.org. To learn about starting a cooperative, visit: http://www.rurdev.usda.gov/rbs/coops/csdir.htm. ■

Wind power

key to reducing costs for isolated Alaska villages

By Anne Todd
USDA Rural Development

The expansive utility infrastructure that exists for most Americans in the lower 48 states is a luxury that simply isn't available for Alaskans living in the remote, rural areas of the state. The majority of these small communities aren't even accessible by road, let alone power lines.

The sheer isolation of such communities, coupled with Arctic weather conditions, present numerous challenges for delivery of any type of utility service. The lack of roads and extreme weather make it difficult to transport materials and equipment.

Permafrost (permanently frozen subsoil) hampers construction and makes construction logistics much more complex. Consequently, due to these unique conditions, diesel fuel has served as the primary source of electrical power in rural Alaska because it can be shipped and stored above ground, even in remote locations and under arctic conditions.

World's largest retail service market

The Alaska Village Electric Cooperative (AVEC) — founded in 1968 and based in Anchorage — provides electric power to more than 7,500 customers in 53 villages scattered throughout some of the most remote stretches of rural Alaska. AVEC's huge service area is the largest service territory in the world for a retail power cooperative. It spans 800 miles from Kivalina in the north to Old Harbor on Kodiak Island in the south. It also stretches 600 miles from Minto in the east to Gambell on St. Lawrence Island in the west.

Fuel costs in Alaska are well more than three times greater than the costs in the lower 48 states. In recent years, those costs have been rising rapidly. In 2008, the skyrocketing cost of diesel resulted in a fuel charge for average AVEC customers of 37 cents per kilowatt-hour.

AVEC operates 48 diesel plants. However, because of rising diesel costs, in 1999 the cooperative began to develop a wind-power program that integrates wind into several of its village diesel power systems. This effort builds upon experience of previous Alaska wind pioneers Kotzebue Electric Association and TDX Power. The goal of this project is to reduce diesel use by 25 percent in 10 years.

AVEC currently owns wind turbines operating in five

By using windpower as a source of electrical energy for isolated villages, the Alaska Village Electric Cooperative (AVEC) is on track to reduce its diesel fuel needs by 25 percent in 10 years. Photos courtesy AVEC

communities with connections to three other communities. In 2008, its turbines, rated at 1,360 kilowatts (kW), had the highest wind-generating capacity and production of any utility in the entire state.

AVEC built its first integrated wind-diesel facility in Selawik, Alaska. That system has four AOC 65-kW turbines with a generating capacity of 260 kW. The total wind-diesel generating capacity is 1,647 kW.

Since it was the first such project AVEC had undertaken, the co-op faced many design and performance challenges. However, working through and solving those problems helped the cooperative garner the field experience and knowledge needed to start other projects and to expand its wind program, which is now nationally and internationally recognized.

AVEC developed two highly successful wind farm projects in Toksook Bay and Kasigluk that reduced fuel costs by 12 cents for customers in the five villages being served by the project (compared to the average cost paid by other AVEC customers). Each of these projects employ three wind turbines that generate as much as 25 percent of the annual electricity needs for two communities.

These projects involved integration of wind power into small, isolated diesel grids, operation in sub-zero conditions and construction in challenging geotechnical and permafrost conditions.

AVEC also has two Northwind 100 wind turbines in Savoonga. These turbines, which went into operation last fall, have a generating capacity of 200 kW. The total wind-diesel generating capacity is 1,870 kW. Hooper Bay has three Northwind 100 turbines in operation and will be fully commissioned this year.

Wind offsets rising diesel costs

The more wind generators that AVEC can install, the more the co-op can reduce fuel costs and diesel consumption for its customers. AVEC currently has several more projects under construction, from which the cooperative expects to obtain similar benefits. For example, AVEC plans to install seven more Northwind 100 turbines in 2009. Four of these will be sited in Chevak and three in Gambell.

AVEC also has placed meteorological towers in the communities of Emmonak, St. Mary's, Shaktoolik, Marshall and Old Harbor to assess the quality of wind resources and determine if these locales can economically support the generation of wind power.

Thirty-nine of the 53 villages in AVEC's service area are classified as "4+ Wind Regions" (the wind power density classes range from one to seven).

"AVEC will continue to pursue wind as aggressively as we can afford to," says Meera Kohler, the co-op president and chief executive officer.

A combination of resources is used to fund the projects. These include AVEC cooperative equity, equity contributions by entities such as the Coastal Villages Region Fund, grants from the Rural Utilities Programs of USDA Rural Development, the Denali Commission and state of Alaska. It also uses renewable energy credit sales to Native Energy and the anticipated proceeds from the sale of Clean Renewable Energy Bonds (CREBs).

Communities and native corporations have helped advance the projects by providing land and access.

Turbines generate big savings

In 2007, the turbines in Selawik, Kasigluk and Toksook Bay generated 1.1 million net kilowatt hours (kWh) and displaced the need for 81,481 gallons of diesel fuel. At an average cost of $2.75 per gallon (and $3.30 in Selawik), AVEC saved more than $200,000 in diesel generation costs.

In 2008, the turbines in these three communities generated more than 1.3 million kWh and displaced 99,191 gallons of diesel. At the 2008 average cost of $4.73 per gallon, this equates to a savings of $453,000 in diesel-generation costs. Including the wind turbines that became operational in late 2008, AVEC's total net wind energy production is more than 1.4 million kWh. Wind power saved 108,057 gallons of diesel and $493,000 in diesel costs.

With results like this, it is not hard to see why AVEC was selected in 2007 as the Wind Cooperative of the Year. This honor from the U.S. Department of Energy (DOE) — in partnership with the National Rural Electric Cooperative Association — recognized AVEC for its leadership and demonstrated success and innovation in its wind power program. AVEC is the seventh such recipient of the award. AVEC was one of six rural member-owned utilities nominated in 2007.

For more information about AVEC and its renewable energy initiatives, visit its website at http://www.avec.org. ■

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cooperative character of the organization. They must be familiar with, and understand, the importance of the cooperative principles and establish policies based on these principles, which must be well-communicated to the membership.

Decisions must be based not only on corporate law, but on specific cooperative state statutory laws. These may include special tax laws that apply to cooperatives, cooperative antitrust laws that mandate or prohibit certain business structures and behavior, and state co-op incorporation statutes that mandate special requirements.

Co-op directors are required to have a clear understanding of financial documents, performance measures and the short- and long-term consequences of decisions.

Because they operate for the mutual benefit of their members (rather than solely to maximize the value of the business), cooperatives use special techniques to finance the business. They have financial needs, opportunities and limitations not found in other businesses.

Directors must determine and distribute patronage refunds to find a balance between monetary returns to members vs. additions to the cooperative's equity. There can also be tension between the board and the members as to whether the co-op chooses to use debt or equity as a source of financing the business. The reasons for these types of decisions must be communicated to members.

Duty of loyalty

As fiduciaries, directors may not put themselves in a position where their interests and duties conflict with the duties that they owe to the business. As such, their actions must be transparent and accountable to the co-op. A director will not be able to escape liability by asserting that a decision was well meant if the action shows otherwise.

Co-op directors are in a different position than other types of directors. Their decisions will affect them as member-users of the co-op just as they affect other members and the co-op itself.

The personal dealings directors have with the cooperative can place them in a precarious position. An action that appears innocent when taken may, in hindsight, look very bad. However, they can avoid problems if the conflict is clearly recognized and decisions are made solely with the interests of the co-op foremost; all questions should then be addressed openly and honestly.

The 'good faith' test

Directors must act honestly and in good faith. Courts have long held the view that the test to determine if a director acts in good faith is subjective and must take into account the unique interests of the company. However, directors may still be held to have failed in this duty if they fail to question whether a transaction was in the best interests of the company.

The single action most likely to raise personal liability issues for co-op directors relates to their personal use of the co-op and their duty of loyalty. It is imperative that directors are sensitive to their dual role and measure their actions using the good faith test.

When standards are breached

There are a variety of remedies available to companies that seek legal recourse against directors in a case of breach of duties. These include injunction, damages, rescission, account of profits and summary dismissal.

After the Enron scandal in 2002, Congress passed the Sarbanes-Oxley Act ("Act"), which introduced new standards of accountability for boards of directors for U.S. companies or companies listed on U.S. stock exchanges.

Under this Act, directors risk large fines and prison sentences for accounting crimes. Internal controls of the company are now the direct responsibility of directors. As a result, the vast majority of public companies have hired internal auditors to ensure that the company adheres to the highest standards of internal controls.

The same remedies are available to cooperatives, except for remedies allowed under the Act. The Act is only applicable to publicly traded companies under jurisdiction of the Securities Exchange Commission. But some states are pushing for application to be extended to large nonprofit organizations.

Although the provisions of the Act do not directly affect co-op directors, they should be used as a guide for best practices. Co-op directors may be held personally liable if they fail to act in accordance with statutory laws and regulations on behalf of the cooperative.

Directors may look to the co-op to be indemnified in defense of a lawsuit. Legal fees and costs could nearly bankrupt a cooperative even if a loss is eventually recovered. Co-op directors are charged to think through business problems independently and to communicate to the members any events that may adversely impact the cooperative with the eye of avoiding possible litigation.

While they are held to very high standards, co-op directors are usually compensated very modestly for serving on a board. Yet the role of a co-op director is one of great honor, from which they should garner personal pride and satisfaction, knowing that the role of co-op director is absolutely critical to the functioning of the cooperative system of business. ■

Newsline

Co-op developments, coast to coast

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

Soybean processing co-op Ag Processing Inc. (AGP) had sales of $4.3 billion and almost $144 million in earnings last year. Photo courtesy AGP

AGP marks 25th year with record cash returns

Despite extraordinary economic volatility in 2008, AGP posted record earnings of almost $144 million on sales of about $4.3 billion. The co-op returned a record $75.8 million in cash to members, bringing total cash returns for the past five years to more than $213 million.

AGP CEO and General Manager Marty Reagan announced the record earnings and returns as part of his remarks at the 2008 AGP annual meeting in Omaha, Neb., in January, which marked the 25th anniversary of the soybean-processing cooperative. "All of us at AGP continue to recognize the importance of these dollars and the value they bring to local communities that have been so supportive of AGP throughout our 25-year history," Reagan said.

Chief Financial Officer Keith Spackler reported that the co-op's $143.9 million in earnings represented an increase of more than 63 percent from fiscal 2007. The AGP board approved record patronage of $88.9 million, of which 30 percent, or $26.7 million, was paid in cash. Fiscal 2008 patronage refund rates were: 39.6 cents per bushel on soybeans; $16.82 per ton on soybean meal; and $8.41 per ton for soy hulls.

Equity redemption of $45 million was also approved by the board. Combined with the $26.7 million cash patronage and value-based premiums of $4.1 million (which are not included in the company's earnings), the equity redemption resulted in total cash returned to members of $75.8 million, up from the $45.2 million returned in 2007.

Capital expenditures totaled $94.1 million, the majority of which was invested in AGP's core businesses of soy processing and refining.

Member-stockholder equity in AGP has grown substantially in the past 25 years. Equity was about $54 million when the cooperative was formed, but by the end of fiscal 2008, it had grown to nearly $578 million.

In addition to strong local demand for soybean meal, the co-op was highly successful in marketing its meal internationally in Mexico, Canada, the Pacific Rim and other areas. AGP exported a record volume of soybean meal, equivalent to more than 25 million bushels of soybeans.

Results were mixed for AGP's renewable fuels businesses. While soy biodiesel achieved record volume and earnings, the ethanol market sagged. Biodiesel and ethanol are as much political fuels as they are renewable ones, said John Campbell, AGP senior vice president of government relations and industrial products. "Looking forward, both the politics and the economics have moved against us," he said. "… AGP's position remains the same — we believe in renewable energy, these markets are good for agriculture, and we are in the business for the long-term."

Although grain markets were wildly volatile in 2008, AGP Grain was

successful in leveraging trading opportunities to post record earnings. Masterfeeds, AGP's animal nutrition company in Canada, was challenged by tough market conditions. Nevertheless, it acquired two feed businesses to reinforce its position in the Canadian industry.

Maine fishing co-op opens certified processing facility

After months of hard work and preparation, the Midcoast Fishermen's Cooperative received final approval in March from the Maine Department of Agriculture to begin operating a new, certified seafood processing facility in Port Clyde, Maine. The co-op began picking Maine shrimp at the facility on March 16 and selling the meat to local consumers and restaurants.

The co-op fishermen work from the last fleet of small, groundfishing boats east of Portland. The village of Port Clyde is among the last true fishing communities left from the industry's heyday. The co-op reports that Port Clyde Fresh Catch customers have been enthusiastically snapping up the frozen, Maine shrimp meat in 1-pound containers through special sales that the cooperative has been running since the facility began operating.

With the arrival of spring, the Maine shrimp season draws to a close; the co-op fishermen make the annual switchover for groundfish season, and the processing facility transitions to filleting fish in late May.

The cooperative has launched one of the nation's first Community Supported Fishery efforts (or CSF), with subscribers getting regular deliveries of fresh fish and shrimp, as determined by the number of shares they buy.

The CSF sales and restaurant sales are critical strategies for the future of both the fishermen and the Port Clyde community. The seafood-processing facility adds another chapter to this strategy by providing new, value-added marketing opportunities for members and new jobs for members of the community. The cooperative is working to expand sales to retailers and distributors in Maine and elsewhere.

The Midcoast Fishermen's Cooperative has opened its own seafood processing facility in Port Clyde, Maine. Photo by Peter Ralston, courtesy the Island Institute

AgStar buys six VeraSun plants; hopes to re-sell to farmer co-ops

AgStar, a Farm Credit System bank based in Mankato, Minn., in March purchased six ethanol plants formerly belonging to bankrupt VeraSun. The bank's credit bid was for $324 million. The six plants were to remain in idle mode for about 60 days while buyers are found.

According to press reports, a number of farm groups were interested in acquiring some of the plants, but did not have the financial clout to win them during the auction conducted by the bankruptcy court. But the bank, itself a cooperative, hopes to give them a chance to do so.

"Part of this is to give farmers and farmer cooperatives the opportunity to buy these plants," Paul DeBriyn, president and CEO of the bank, was quoted in the *St. Paul Pioneer-Press*. "We think that would be the best outcome." He told the newspaper that he thought two to six of the plants would wind up owned by farmer cooperatives.

VeraSun's other seven ethanol plants and one plant site under development were purchased for $477 million by San Antonio-based Valero Energy Corporation, North America's largest petroleum refining and marketing company. These plants have an annual production capacity of 780 million gallons.

The six plants purchased by AgStar, located in five Upper Midwest states, are described by the bank as being state-of-the-art facilities with annual production capacity of 470 million gallons of ethanol. "This purchase will protect the interests of AgStar stockholders and our fellow creditors in the lending group," said Paul DeBriyn, president and CEO of AgStar. "Basically, we've taken the necessary steps to ensure these plants will be sold for fair market value."

The AgStar-led lending group, comprised of 16 financial institutions, has received ample interest in the plants from potential buyers, DeBriyn said. "Even during the auction process, we were fielding inquiries from companies interested in purchasing one or more of these six plants. Ethanol has experienced recent volatility but remains a viable industry."

DeBriyn said he hopes to sell the plants as quickly as possible. "This is

Humboldt Creamery files Chapter 11

Humboldt Creamery filed for Chapter 11 bankruptcy protection April 21 in U.S. Bankruptcy Court in Santa Rosa, Calif. By filing for Chapter 11, the co-op has indicated its desire to continue to operate. The co-op is looking for possible partners or buyers.

Len Mayer, appointed as interim CEO, has concluded that the core, on-going operations of Humboldt are profitable and will be preserved.

The bankruptcy filing was necessitated by the co-op's "impaired financial condition, which was discovered after the resignation of former CEO Richard Ghilarducci," the company said in a press release. Humboldt Creamery's bankruptcy filing lists assets of $50 million to $100 million, with liabilities of a like amount.

Humboldt Creamery is the oldest independent dairy cooperative in California and specializes in pasture-based and organic dairy farming. It is owned and operated by about 50 family farmers and produces high-quality fluid milk products, ice cream and milk powder shipped nationally and internationally. Based in Fernbridge in Humboldt County, it has additional facilities in Stockton, Calif., and Los Angeles.

Ghilarducci, who had been the co-op president and CEO since 1997, unexpectedly resigned Feb. 20. The news that the co-op was in trouble was even more surprising, coming just a month or so after it had announced a record sales year in 2008. The co-op has issued a statement accusing its former CEO of manipulating the accounting books to hide the true condition of the company. The co-op says the Securities and Exchange Commission, the FBI and U.S. Department of Justice are going over the financial records.

Ghilarducci's attorney, Elliot Peters, has countered in the press that it is "cynical and false" to blame his client for the current financial problems of the co-op.

Humboldt's major secured creditors are its lenders: CoBank and American AgCredit. These lenders "have cooperated with Humboldt in negotiating the terms of a debtor-in-possession loan agreement providing an additional $3 million for Humboldt, allowing it to reorganize its business in Chapter 11," the co-op press release says.

A new financing arrangement with lenders "will allow us to pay on a current basis all of our suppliers for goods, supplies and services delivered to us after the filing of the bankruptcy case, and to at the same time find a strategic buyer who can continue the operations of this business that was started in 1929," Mayer said.

Although Humboldt Creamery has filed for Chapter 11 Bankruptcy, a spokesman says its core business remains profitable. The co-op is searching for a partner that will enable it to continue the creamery's legacy of producing quality dairy foods. Photo courtesy Humboldt Creamery

Humboldt has hired investment bankers Duff & Phelps to help it find a partner or buyer. "With the support of its existing lenders, Humboldt expects to find a new partner who will work with it to continue the business and solve the problems caused by the former lack of financial reporting," Mayer said.

More than 60 percent of dairy farmers in the Humboldt County area ship milk to the co-op, and its loss would be a severe blow to agriculture in the state's north coastal area. "It would be devastating — this is the most devastating news in agriculture during my lifetime," County Farm Bureau Executive Director Katherine Ziemer told the *Times-Standard* newspaper. "If the creamery doesn't make it, it will have lasting effects for generations to come — so many people in Ferndale are tied to what has happened at Humboldt Creamery."

vital so that corn will again be purchased from local sources, jobs will be brought back to rural America, and the renewable fuels industry as a whole will be reinvigorated." AgStar has contracted with ICM Inc. to oversee plant operations during the transition period.

Record revenue at DFA in '08; plunging milk price sparks effort

Dairy Farmers of America had record revenue of $11.7 billion and net income of $61.7 million in 2008. The cooperative marketed 61.2 billion pounds of milk and directed more than $7 billion dollars in milk payments to 18,000 farmer-members.

"Although 2008 was a record year for the cooperative, our results are delivered with mixed feelings," Camerlo said at the co-op's annual meeting in Kansas City in March. "We are proud of the cooperative's progress and

achievements — and the individuals who contributed to these successes. At the same time, we are deeply concerned about our members and the economic influences shaping 2009."

Record operating profits were helped by the strong performance of DFA's commercial division, Dairy Food Products Group, which represented 17 percent of consolidated net sales. Sales of milk comprised 77 percent of consolidated net sales. Revenue and cost of sales were significantly affected by fluctuations in milk prices, which were, on average, at record high levels during 2007, but declined in 2008.

DFA says it is taking numerous measures to assist members during the current low-price cycle. "Although we expect to have to manage through volatility in this industry, this down cycle is an especially bad one," Camerlo said. "We are seeing drastically lower milk prices at a time when on-farm costs are at historically high levels. Compounding this is the fact that we are in a global economic crisis."

DFA has several initiatives underway designed to ease the burden on members. Among these initiatives are:

- Continued support for the Cooperatives Working Together (CWT) program, a dairy farmer-funded self-help initiative to better balance supply with demand.
- Establishment of a DFA Cares hotline, a 24-hour support system to offer assistance to members. Producers can speak to a DFA staff member and ask general questions, seek market information or, in some cases, receive consultative assistance.
- Working to educate the financial community on the dire conditions dairy farmers face and to discuss ways in which they can collaborate to assist members. DFA recently conducted a webinar for more than 500 members of the lending and agribusiness community, as well as nutritionists, suppliers, academians and others with a stake in dairy farmers' futures.
- Having DFA staff work closely with lawmakers and USDA to enact, or expand, government programs that will benefit dairy producers, including use of the Dairy Export Incentive Program.

Record milk volume, sales growth at AMPI

Associated Milk Producers Inc. (AMPI) reported record milk volume and sales growth for 2008. "A record 5.8 billion pounds of milk [up 6 percent], combined with strong dairy product markets and AMPI sales, resulted in $1.7 billion of revenue," AMPI President and CEO Ed Welch told 400 annual meeting delegates in Bloomington, Minn. Welch, a 25-year AMPI employee, was selected last year to lead the co-op.

AMPI exceeded annual budget expectations with $11 million in earnings from operations, before inventory adjustment. Earnings were bolstered by strong domestic sales of bulk natural cheese, as well as consumer-packaged cheese and butter. AMPI members shared $12.3 million of equity payments.

Welch said the co-op recognized a $14.9 million loss due to the devaluation of dairy product inventory by year's end. "Global demand, which buoyed dairy product prices and sales throughout the first half of 2008, nearly disappeared in the fourth quarter," he said. The markets also affected on-farm milk prices. Prices plummeted in early 2009, following two years of near-record milk prices.

AMPI Chairman Paul Toft, a dairy farmer from Rice Lake, Wis., said the ultimate measure of cooperative performance is long-term growth. "We continue to focus on growing our membership and consumer-packaged dairy product business to ready this cooperative for the next generation of member-owners."

AMPI highlights for 2008 include:

- Record milk volume contributed to the cooperative's 9-percent growth in bulk natural cheese production.
- As a preferred supplier for America's leading fast-food restaurant chains, AMPI processed cheese slice production increased 16 percent.
- Butter production was 6 percent higher, with growth in categories ranging from traditional retail-packaged quarters to single-serve continentals favored by food service customers.
- A new whey protein concentrate dryer was installed at the Paynesville, Minn. plant, with whey protein being marketed to domestic and global customers.

CHS notches fifth year of record returns

Record earnings in 2008 are enabling CHS Inc. to disburse up to $343 million to its owners in 48 states. This marks the fifth consecutive year of record returns to owners by CHS and is the largest ever made by a U.S. cooperative.

Of that amount, $231 million is being distributed in cash patronage, equity redemption and CHS preferred stock issued as equity redemption. Distributions of equity and preferred stock dividends later this year are expected to bring the fiscal 2009 total to $343 million.

"Once again, CHS has demonstrated one of the most important ways we can deliver on our mission of adding value for all of our stakeholders," says Michael Toelle, CHS board chairman. "The strong performance the company achieved during fiscal 2008 has enabled CHS to continue to grow, to be financially sound and to provide a return on our owners' investment in diverse businesses, ranging from energy to grain marketing to food processing."

CHS net income for its fiscal year ending Aug. 31, 2008, was $803 million. During 2009, distributions are being

made to about 1,200 member companies and more than 35,000 individuals. Patronage is based on business done with CHS during fiscal 2008, while equity redemptions and preferred stock distributions represent retirement of ownership in CHS earned in past years.

A Fortune 200 company, CHS is owned by farmers, ranchers and cooperatives, along with thousands of preferred stockholders across the United States.

Agri-Mark earns $11.8 million

Agri-Mark, Methuen, Mass., earned an after-tax profit of $11.8 million for 2008, the second best year ever for the cooperative's 1,300 Northeast dairy farm families. Agri-Mark sales of member-farm milk and manufactured dairy products for 2008 generated $881 million in revenue.

Agri-Mark farmers also shared in a record, extra $17.1 million in their bi-monthly milk checks throughout the year for overall milk quality and other incentives that the co-op was able to negotiate with its customers and return to members. Profit allocation to the co-op's dairy farmers will be 25 cents per hundredweight for all milk that each farm family shipped to the co-op during the 2008. This represents allocated earnings of roughly $4,500 for the average Agri-Mark member milking 100 cows.

Despite "a very difficult marketing environment," during which milk prices nationwide have plunged, "Agri-Mark continues to generate substantial profits for dairy farmers," said Neal Rea, a dairy farmer from Cambridge, N.Y., who was elected to his third term as the co-op's chairman.

The continued strength of the co-op's Cabot and McCadam branded cheeses exceeded expectations in 2008. Both cheese brands maintained market share or grew in sales at a time when many other brands saw sales decline. This brand demand, combined with steady sales of butter and whey proteins produced by the co-op, all worked to boost returns to farmers.

Rea said that although the cooperative business has done well, dairy farmers are still facing severe challenges. The past two years have seen record-high production costs both on the farm and within the cooperative's plant operations. Farmers have been struggling with high energy and feed costs in particular. Compounding problems, 2009 farm prices are expected to be the lowest in decades, and the financial crisis has made loans and credit more difficult for farmers to attain.

The benefits of farmers owning added-value businesses were apparent in 2008, Rea says. By being part of Agri-Mark, members assure themselves of secure markets with their investment in owning facilities to process their milk and support their branded products.

NCFC meeting explores impact of climate change laws on ag

The National Council of Farmer Cooperatives (NCFC) hosted a meeting in Washington, D.C., in April that attracted a broad range of agricultural organizations to discuss the real-world costs that climate legislation will impose on farms, cooperatives and rural households across America. Bob Looney, vice president of government affairs for CHS Inc., discussed the impact the legislation will have on petroleum refiners, while Kirk Johnson, vice president of environmental policy at the National Rural Electric Cooperative Association, looked at how the law would likely raise consumers' utility bills.

Bill Herz, vice president of scientific programs at The Fertilizer Institute, provided an overview of how fertilizer prices are likely to rise under any climate change proposal. Presentations are available on NCFC's website: www.ncfc.org/ncfc-climate-change-initiative.html.

"Agriculture needs to become a much more active participant in the process as climate change legislation begins to move through Congress," says NCFC President Charles Conner. "As we do this, it is especially important that we look at the impact that this legislation will have on farm and household budgets across rural America."

Among the consequences of climate change legislation discussed were:

- Climate change legislation could cost the average American family more than $2,400 a year in increased utility costs alone;
- The U.S. Environmental Protection Agency predicts that the cost of natural gas, a key component of nitrogen fertilizers, will increase by 25 percent almost immediately under the plan;
- The plan would jeopardize the existence of small, rural petroleum refiners, who produce nearly two-thirds of the fuel used in rural America, thereby resulting in increased gasoline and diesel costs for

farmers and others.

The session was the first in a series of topical meetings that NCFC plans to hold; future sessions will look at commodity-specific impacts of climate legislation, opportunities provided in a cap-and-trade system, and how legislation might affect the transportation infrastructure and agricultural trade.

Record sales, member payments for LO'L

Land O'Lakes, a Minneapolis, Minn.-based dairy foods and farm supply co-op, had record net sales of $12 billion in 2008, up 35 percent from $8.9 billion in 2007. The co-op also returned a record $98 million to its members. Net earnings of $159.6 million were just slightly off from 2007's record $160.9 million. About two-thirds of the sales increase was the result of the company's acquisition in late 2007 of a crop protection products business.

President and CEO Chris Policinski said that these results — coupled with strategic progress in becoming a more focused, more disciplined and financially stronger organization — put Land O'Lakes in a solid position moving into 2009. "No matter what business you are in, you can expect a bumpy ride in 2009," Policinski said. "At Land O'Lakes, we're confident we have the financial foundation, resources, strategies and people in place to weather the storm and continue to generate value for member-owners and customers."

He said the company has felt the impact of the current economic recession, particularly in the fourth-quarter, when results were negatively affected by a steep decline in commodity prices. This narrowed margins, required inventory write-downs and resulted in significant unrealized hedging losses.

The company improved its long-term, debt-to-capital ratio, which was at 34.8 percent as of Dec. 31, 2008, compared to 36.5 percent as of Dec. 31, 2007. During the fourth quarter, the company's corporate debt rating was upgraded to "BB+" by Standard and Poor's, following an upgrade to "Ba1" by Moody's Investors Service.

Performance by business unit shows:

- Dairy foods sales of $4.1 billion and pretax earnings of $16.3 million in 2008 compared to sales of $4.2 billion and pretax earnings of $28.5 million in 2007.
- Feed sales climbed to $3.9 billion, but it proved to be a break-even year for the unit, compared to sales of $3.1 billion and pretax earnings of $30.9 million in 2007.
- Layers/Eggs sales, conducted through MoArk LLC, were $606 million with pretax earnings of $29.9 million, up from $514 million and $19.9 million the previous year.
- Seed sales notched a new record at $1.2 billion, with pretax earnings of $33.4 million, compared to sales of $917 million and pretax earnings of $43.9 million in 2007.
- Agronomy sales, primarily crop protection products, hit $2.3 billion with pretax earnings of $112.5 million. This is a new division, following its acquisition from Agriliance LLC late in 2007.

Two-thirds of milk supply enrolled in CWT program

Cooperatives Working Together (CWT) has reached its goal of signing up a "super-majority" of the nation's milk supply for two years, which will enable the self-help program to "focus on reducing the current devastating imbalance in milk supply and demand," according to CWT officials. About 67 percent of the nation's milk supply has now committed to pay the 10 cent per hundredweight membership assessment for a full two years (through December 2010). More memberships are still being received, that will further boost the enrollment.

"March is shaping up to be one of the toughest months ever for America's dairy farmers, given the painfully low milk price, combined with elevated input costs," Jerry Kozak, president and CEO of NMPF, which manages CWT, said in late March. "But the good news is that CWT will continue to be engaged in efforts to improve the difficult economic situation that dairy producers are facing."

Hog co-op files for bankruptcy

Meadowbrook Farms, an Illinois hog cooperative that opened in 2002, announced plans in March to file for Chapter 7 Bankruptcy. It said its assets will be liquidated, including a processing plant in Rantoul, Ill.

The co-op once had 200 members, but was down to less than half that number, according to press reports. Its 600 employees were laid off in December. It had for many months been paying below-market rates for hog deliveries, leading to steady erosion in member business.

Co-op members are unsecured creditors who will only collect the $5 million the co-op owes them if funds remain after payments are made to secured creditors (typically lenders and suppliers).

According to press reports, Meadowbrook Farms officials have blamed a major customer for defaulting on a key contract, leading to $5 million in losses. It has filed a complaint against the customer in Champaign County Court. The customer has denied the allegations, saying it was the co-op that violated the contract.

N.Y. Times includes special co-op section

The April 6 issue of the *New York Times* included a special advertorial (paid editorial and advertising content) section that focused on the advantages of cooperative businesses. The advertorial on cooperatives featured a four-page section of ads and editorial copy.

The purpose of the advertorial was to educate consumers and policymakers on the value of cooperatives, according to the National Cooperatives Business Association (NCBA), which spearheaded the effort. "It tells a truly compelling story about cooperatives," says NCBA President Paul Hazen.

Organic Valley sales top $528 million

Organic Valley, the nation's largest cooperative of organic family farmers and one of the nation's leading organic brands, had record sales of $528 million in 2008, a 22-percent increase over 2007. This follows a 29-percent rise in sales from 2006 to 2007. The co-op's sales have grown nearly 153 percent in the past five years.

The cooperative, with 1,332 farmer-members in 32 states and one Canadian province, expects 2009 sales to reach $549 million, a 4-percent increase.

"In light of the difficult economic environment and a softening in consumer spending, our farmers are very happy to once again experience double-digit sales growth in 2008 and to forecast continued growth for 2009," says George Siemon, one of the founding farmers and CEO of Organic Valley. "Economic crises are not new to family farmers. Our mission to save family farms and strengthen rural communities was born in the 1980s, when farmers faced yet another economic crisis. We learned then that good things can come from hard times when we work cooperatively."

To determine the total amount of synthetic chemicals and performance-enhancing drugs its organic farming practices have avoided using, Organic Valley compared its member-farm data to 20 years of USDA data on conventional farm use. As a result, Organic Valley estimates that co-op members avoided using 58 million pounds of synthetic nitrogen and 605,747 doses of performance-enhancing drugs administered to animals.

The co-op sold more than $9 million in Class E preferred stock last year, almost double the amount in previous years. New products introduced last year include Pasture Butter (a sweet, lightly salted cultured butter); Whipped Butter and Vermont Cheddar Cheese, a premium organic cheese.

The advertorial section focused on a variety of different types of co-op businesses, including: Cabot Creamery, Organic Valley, Wakefern Food Corporation (ShopRite), RaboBank, NYU Credit Union, NCBA, BizUnite, CCA Global and Carpet One. In January, *The Times* also ran an advertorial featuring credit unions covering three pages of ads and text.

NCBA originated the idea for the cooperative advertorial last fall, when *The Times* contacted it for a list of national and regional credit unions to participate in the January advertorial. Beginning last fall, the NCBA marketing/communications team collaborated with The Times to ensure that the advertorial "tells the most robust story on why cooperatives are the better business model when it comes to economic and social change," Hazen adds.

The Times interviewed John Dunn, NCBA vice president of international development (and formerly with USDA Cooperative Programs) and Jim Jenkins, NCBA communications director, for background used in the editorial portions of the spread.

A copy of the advertorial can be downloaded from the NCBA website at: www.thebetterchoice.coop.

USDA accepting applications for co-op development grants

USDA is accepting applications for grants to fund cooperative development centers that work to improve economic conditions in rural areas. Applications are due by the close of business on June 29, 2009.

"These cooperative development centers provide rural Americans with stronger technical and managerial skills, helping small businesses become more profitable and creating jobs in rural communities," says Agriculture Secretary Tom Vilsack. Grants of up to $200,000 may be awarded to colleges, universities and nonprofit groups to create and operate centers that help individuals or groups establish, expand or operate rural businesses, especially cooperatives.

The grants are being provided through USDA Rural Development's Rural Cooperative Development Grant program. The centers promote President Obama's goal to bring increased economic opportunities to rural residents by giving them tools to help their businesses grow.

Cooperative program grants can be used, among other things, to conduct feasibility studies, create and implement business plans and help businesses develop new markets for their products and services. USDA may award up to $4.4 million in grants, which may finance up to 75 percent of the cost of establishing and operating the cooperative centers. Recipients must match 25 percent of the total project cost.

The application guide for this grant program can be found at http://www.rurdev.usda.gov/rbs/coops.htm. Also see the April 29, 2009, *Federal Register*, page 19485. ■

Commentary

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factors in determining farmers' decisions to employ water-saving irrigation technologies and conservation practices long before the 2007-2009 drought hit.

Due to the size and diversity of agriculture in California, it is impossible to generalize about water use efficiency practices. However, the following trends reflect what is currently happening on California farms:

- Water cost is forcing lower value field crops to give way to higher value permanent plantings. For example, from 1997-2006, cotton acreage declined 68 percent (from 880,000 to 285,000 acres). During the same time frame, almond acreage increased 45 percent (from 505,000 to 730,000 acres).
- A diversity of water-saving irrigation and recycling technologies is being employed. For example, processing tomato acreage (traditionally furrow irrigated), is incorporating sub-surface drip irrigation technologies.
- Groundwater "banking" through voluntary, locally organized districts is playing a vital role in providing drought "insurance." For example, the Kern Water Bank at the southern end of the San Joaquin Valley has about 10 million acre-feet of storage capacity. During the current drought, this subsurface reserve has provided much needed relief to the local farmers who have switched their cropping patterns to permanent plantings.
- Water transfers from the "haves" to the "have nots" are more prevalent as the law of supply and demand increases the value of water. If agricultural water users earn more revenue from the sale of water to urban areas, crop production will be curtailed to accommodate transfers.

The complex system of federal and state water projects that served the California economy magnificently during the latter part of the 20th century has been overtaxed by periodic droughts and competing demands. For 30 years, lawmakers have studied and debated — but failed to enact — measures to improve our water supply and distribution system.

Although Mother Nature ultimately holds the trump cards, the state's water problems will only be solved if political consensus can be achieved. In the meantime, the quantity, quality, cost and legal sanctions associated with water allocation and use will be increasingly problematic as California's population reaches 50 million by 2030.

Many of the fruit, nut and vegetable crops grown here cannot be grown in other parts of the nation. Thus, California's water shortages have ramifications that extend beyond our state's borders into domestic and international markets. For this reason California cooperatives and their members will be actively engaged in the struggle to find solutions to our water policy challenges. ■

Waste Not

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scale, but the market's not going to be there until you've developed your technology and you've got enough producers out there."

Europe far ahead

Stockwell agrees with Haubenschild and Jennissen that the technology is much more established in western Europe. In Europe, digesters are commonly used to dispose of farm and food-processing waste.

More than 4,000 digesters in various sizes have been built in Germany alone. "We're like teenagers compared to the Europeans," Stockwell says. "They went through this 25 years ago — they learned from the oil embargo in the 1970s."

At a minimum, Stockwell expects it to take four to five years before methane digesters on U.S. farms begin to take off. For other applications, such as waste from food processors, he thinks it may be 20 years before the technology is widely adopted.

"Every time Jerry and Dennis give a presentation about their systems, it's standing room only."

His organization is trying to hurry things along by developing education and outreach programs to encourage grassroots support in Minnesota. It's also working on a "best practices" digester handbook for farmers, using information gained from Haubenschild's and Jennissen's operations.

In any case, he thinks grass-roots support for the technology is building. "Every time Jerry and Dennis give a presentation about their systems, it's standing room only," he says. "People are definitely interested. Once we get the costs down and get pricing mechanisms in place, I think we'll get a lot more investment." ■

NEW from USDA

Three new publications offer information to cooperatives looking to break new ground

A Guide for the Development of Purchasing Cooperatives: CIR 64 – Rural communities can often greatly benefit from the institution of purchasing co-ops. This publication offers information on organizing and operating a sustainable purchasing cooperative.

Cooperative Approaches for Implementation of Dairy Manure Digesters: RR-217 – High costs and low returns often discourage dairy farmers from using anaerobic digesters. A cooperative approach may offer lower costs and better profitability while letting each farmer concentrate on milk production.

Selecting a Cooperative Membership Structure for the Agriculture-of-the-Middle Initiative: RR-216 – Many medium-sized farms are suffering a squeeze because they are not big enough for economies of scale and not able to take advantage of niche markets. This report explores cooperative approaches to survivability for farms of the "disappearing middle."

Get them online now at :
www.rurdev.usda.gov/rbs/pub/newpub.htm

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