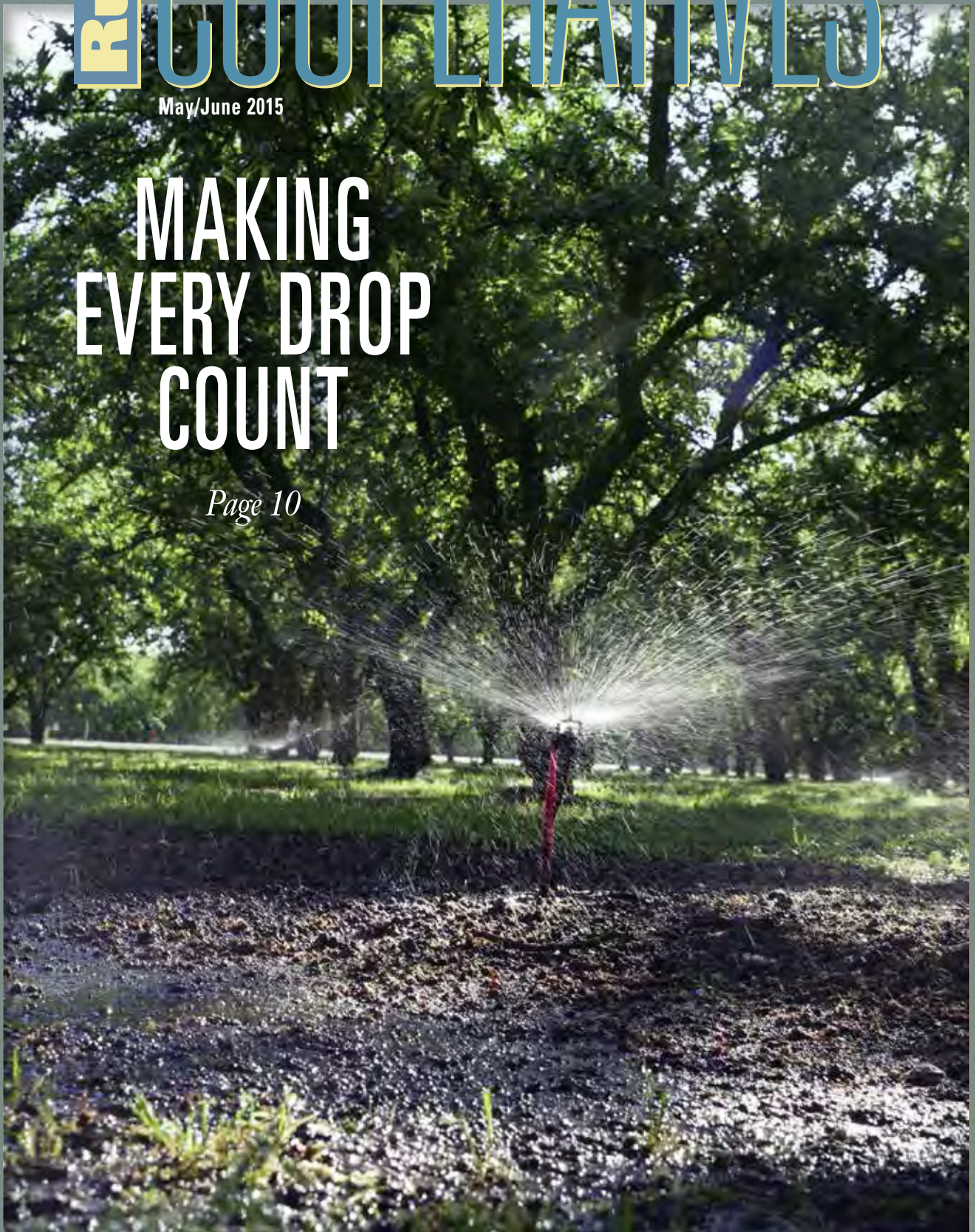


Rural COOPERATIVES

May/June 2015

MAKING EVERY DROP COUNT

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Commentary

Drought requires joint effort, not finger pointing

By Greg Wuertz

Editor's note: Wuertz is a farmer and is board chairman of Calcot, a producer-owned cooperative based in Bakersfield, Calif.

While water may be scarce in several Western states due to drought, there's no shortage of ink nor opinions about the situation.

California has gotten most of the recent attention, due to the severity of the drought there and the state's importance in producing so much of the food and fiber supply for our nation and the world. Yet, drought in these states, including Arizona, where I farm and live, has been ongoing for a number of years to varying degrees of severity.

It took a fourth straight year of drought to attract so much media attention, and fingers are being pointed every which way regarding who is responsible for making a bad situation worse. "It's farmers hogging all the water." "It's the environmentalists causing water to just flow unchecked to the sea." "It's climate change, altering weather patterns." "It's people with their manicured lawns, golf courses and swimming pools." "It's a naturally recurring drought; nothing to worry about."

Ultimately, the cause of California's water shortage and the situation in the developing West is quite complex. Each of these charges is in some sense correct, as we are all responsible. At the same time, it is everybody's responsibility to fix it, and each of us can and must do what we can.

Water is a resource for all the people in each of the states, and we have more demand than we have water. It is compounded in California because precipitation falls in the north and the majority of the population lives in the southern part of the state. Two great canal systems move water freely throughout the state, or did, until recently. Even if weather returns to normal in the next year, this might be a good opportunity to reassess and reallocate our priorities.

Water's first and most basic function is to provide life to the earth itself. Who doesn't want healthy rivers and ecosystems? Who doesn't want wildlife, flowers, birds? The great California redwoods? Fish? Marine life? Of course, we all want these things, and that is why half of the water

California receives each year is devoted to nature.

Second, human beings all need drinking water. Our bodies are two-thirds water overall, and blood is over 90 percent water. People can survive not eating for up to a month. But within a week, without water, the human body shuts down. We actually don't drink that much of the earth's water, but it is obviously essential to the well-being of humanity.

Photo by Mark Bagby



Water is also absolutely essential to producing foods of all kinds, from fruit and produce to nuts to animal protein. We get much of the water we need from the foods we eat. Health experts tell us we need varied diets, and we are blessed in the West to have a climate that allows for year-round agricultural production. We have farmland that supports an enormous variety of crops, if we can get sufficient water to it on a proper schedule.

California farmers' yields are among the highest in the world and the quality is overwhelmingly high, year after year.

Despite this tremendous efficiency, we're being criticized by some for our water usage.

You might have seen statistics along the lines of "one gallon of water needed to produce one almond." Technically, that's accurate, when you divide the water applied to one tree over the course of the year to what it produces in almonds. But this current drought has demonstrated how disconnected most people are from the "water mathematics" of their own lifestyles.

How much water do we use to wash a car or a load of laundry? Fill a swimming pool? How much water do most people use while showering, or washing their hands or flushing a toilet? How much water do you need to drink on a daily basis? How much water falls on the state in a given year?

Most people do not know the answers to these questions. They turn on the tap and water comes out. But Western farmers know exactly how much water they are using, because the cost of water is exorbitant. (In some cases, farmers pay for water that they don't even receive, much less use.) It's one of farmers' largest costs. The high cost of water is a great incentive to use as little as possible.

Ultimately, farmers have switched to better irrigation methods to protect our resources and to save money, which

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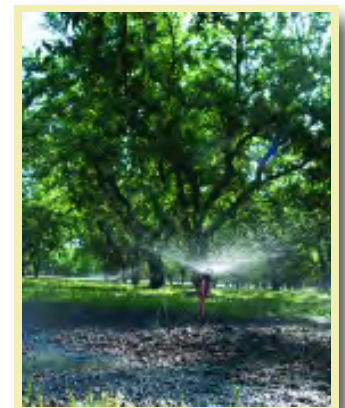
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ON THE COVER: Micro-jet sprinklers are used to irrigate an almond orchard in the Central Valley of California. A large majority of almond orchards are now irrigated with low-volume systems, such as this, helping to increase water-use efficiency. For more, see page 10. Photo by Mel Machado, courtesy Blue Diamond Growers



Building Co-op Infrastructure

Education efforts needed to develop expertise in co-op legal, tax, financial and accounting issues

By Jenny Bernhardt
Cooperative Network

Editor's note: Bernhardt is communications director for Cooperative Network, the nation's largest statewide association for cooperative businesses. It provides government relations, education, marketing, and technical services to a wide variety of more than 400 Minnesota and Wisconsin member-cooperatives. For more information, visit: www.cooperativenetwork.coop.

A few years ago, Diane Dube was attending the Symposium on Small Towns at the University of Minnesota-Morris, where attendees began discussing how a town's only movie theater had converted to a co-op. The community hadn't been able to find an attorney outside the Twin Cities to handle the cooperative aspects of the deal. This realization of a critical co-op resource gap stayed with Dube after the conference — and it also seemed like something students at William Mitchell College of Law should be aware of.

Minnesota boasts the highest number of cooperatives in the nation, and they aren't just concentrated in Minneapolis and St. Paul. As an attorney, resident adjunct professor at St. Paul-based William Mitchell, and director of the college's Community Development Clinic, Dube increasingly felt that her students needed co-op law exposure to best equip them for practice



Debra Spaeth (left), communications specialist with United FCS, discusses the cooperative's financial products and services with student Rongrong Jing during a University of Minnesota Carlson School of Management networking event in 2014. Photo courtesy Minnesota Cooperative Education Foundation

outside the metro area.

“It’s a business organization form that doesn’t get much attention, even though the Upper Midwest is the birthplace for cooperatives,” Dube says. “Attorneys who currently practice cooperative law will be retiring in the next decade...so we need to be training the next generation to carry on the work.”

The college did not have room in the curriculum for an entire class on cooperative law, and the topic wasn’t included as part of any other course. But Dube’s Community Development Clinic had begun collaborating on a number of projects with the school’s Center for Law and Business, and she felt the timing was right for a learning session on cooperatives.

So, she contacted Bill Oemichen, president and CEO of Cooperative Network, the statewide association for cooperatives. [Editor’s note: Oemichen recently announced he is retiring from the post, see Newline, page 36.) Oemichen is also a lawyer who specializes in cooperative law.

Co-op Law 101

Cooperative education is an important initiative of Cooperative Network, which provides government relations, education, marketing and technical services to cooperatives in Minnesota and Wisconsin. It’s also a core focus of Cooperative Network’s charitable arm, the Minnesota Cooperative Education Foundation.

At Dube’s request, Oemichen prepared an after-hours session to teach William Mitchell law students and graduates about the business and legal characteristics of cooperatives and the particular laws that regulate cooperatives in Minnesota.

“Member-owned cooperatives are a prominent part of the Upper Midwest business community and are vital components of urban and rural communities,” says Oemichen, who has also been a guest speaker at the University of Minnesota Law School. “If cooperatives are to continue to

thrive here, we must continue to maintain and grow our legal, tax, financial and accounting professional infrastructure. We feel that talking to law students at William Mitchell and other law schools about the important role cooperatives play in their community, as well as the students’ own opportunities to work with cooperatives, will help ensure we retain and grow our legal infrastructure.”

With funding from the CHS Foundation, the Minnesota Cooperative Education Foundation provided financial support for the January session, which was advertised through a campus flier. More than 30 students and

lawyers gathered for Oemichen’s one-hour presentation and stayed for nearly the same amount of question-and-answer time.

Oemichen addressed the basics of cooperative business and how co-ops compare to other business types; the various co-op sectors in Minnesota; specific federal and Minnesota laws governing cooperatives; and the economic impact of cooperatives.

Anna Ayers Looby, a University of Minnesota student about to receive her master’s degree in public health, was one of the few non-law students in attendance. She saw the session

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Co-op education in Minnesota

In addition to the Co-ops 101 session for law students, Cooperative Network offers a number of other co-op education opportunities through its 501(c)(3) charitable arm in Minnesota, the Minnesota Cooperative Education Foundation (MCEF). With grant funding from the CHS Foundation and the AgStar Fund for Rural America, MCEF’s educational projects reach everyone from middle school students to business professionals. Its efforts include:

- **Co-op Networking with Business Students.** For the past five years, MCEF has organized a student/cooperative networking event at the University of Minnesota Carlson School of Management. Students have the opportunity to network one-on-one with co-op professionals and to learn about career opportunities from a variety of Minnesota-based cooperative businesses such as Land O’Lakes, United FCS, AgriBank, People’s Food Co-op, and the Minnesota Rural Electric Association.

- **Co-op Curriculum.** MCEF staff recently updated a Minnesota version of the USDA high school curriculum on cooperative business, which will be reviewed by Minnesota teachers. The materials include extended and abbreviated versions of lesson plans, worksheets, presentations, and activities that comply with Minnesota state standards. A university law school and middle school curriculum are also in the works. Materials will be available at: www.mcef.coop.

- **Minnesota State Bar Co-op Committee & Continuing Legal Education.** In conjunction with Cooperative Network, MCEF created the nation’s first cooperative committee in the Minnesota State Bar Association’s business law section. Any law that deals with cooperatives must now be addressed by the committee. MCEF has proposed and organized a number of continuing legal education classes for attorneys through this group. The trainings have been offered in person and via teleconference or webinar since 2009, addressing topics such as co-ops 101, health care in cooperatives, and anti-trust in agriculture. ■



Begin Here

Phases and steps in starting a co-op

By James Wadsworth, Ag Economist
USDA Cooperative Programs

Editor's note: This article is based on material in the recently revised USDA guide: How to Start a Cooperative (Cooperative Information Report 7). The guide provides basic information on cooperative structure and principles, why they are organized, the phases and steps involved in a co-op development process, and other pertinent information.



Cooperatives provide necessary services in nearly every market segment of the economy. More than 29,000 cooperatives are operating in the United States, filling myriad needs for their member-owners, with more being formed every day. Starting a co-op is a very demanding process, consisting of a number of important steps. Cutting corners will more often than not have a negative, possibly fatal, impact on a fledgling cooperative.

People organize co-ops to improve their income or to provide a needed service. Co-ops may take on one or more of the functions of marketing, purchasing or providing services. The co-op business model should be explored whenever a group of people have identified a specific need that isn't being sufficiently met by other businesses in the marketplace, and/or when they know that it is unlikely that another business will meet that need.

A compelling need and a few community leaders can spark the drive to form a cooperative. These leaders can be small business owners, manufacturers, growers, artisans or any citizens who lack (or are losing) a market for their products, satisfactory sources of production supplies or services related to their occupation. Or, they may wish to secure some other needed service to reduce their current costs.

Depending on the situation, a new co-op may be welcomed with enthusiasm or may be met with vigorous opposition, especially from a likely competitor. In any case, leaders must demonstrate a combination of expertise, enthusiasm, practicality, dedication and determination to ensure that a co-op development project is correctly undertaken and objectively assessed.

Organizing steps

Starting a co-op is a complex, time-consuming project. USDA's "How to Start a Cooperative" guide offers a comprehensive, 12-step approach for undertaking the effort. The precise number and types of steps may differ, depending on each project's unique circumstances. The guide presents

the steps within four development phases: Identify Economic Need; Deliberate; Implement; and Execute. Each phase and the steps or events in each are listed as follows:

Phase I: Identify Economic Need

- *Determine the economic need* (leaders meet).
- *Hold an exploratory meeting.* Potential member-users meet and decide whether to continue. If so, select a steering committee.

Phase II: Deliberate

- *Conduct a member-use analysis and initial market analysis.* This involves surveying the potential member-users to explore prospective members' needs, anticipated business volume, likely locations, business or service characteristics of prospective members, and the opinions of prospective members. Discuss the survey results and preliminary cost analysis and discuss all related issues. Vote whether to proceed.
- *Conduct a feasibility analysis.* This is necessary for helping the steering committee determine if the proposed co-op is feasible, based on well-developed assumptions, researched information and the member-use and initial-market analysis. The steering committee presents the findings to potential members, along with their recommendation on whether to proceed. The group then votes.
- *Prepare a business plan.* The feasibility study acts as the foundation for a professional business plan which provides specifics of how the business will operate within its market.

Phase III: Implement

- *Employ legal counsel to draft and complete legal papers.* These include articles of incorporation and bylaws. Then hold a member meeting to review the work of the steering committee, including the business plan and legal documents.
- *Hold first meeting of new co-op.* The goal here is to approve the bylaws, discuss implementation of the business plan and elect the first board of directors.

Phase IV: Execute

- *Convene first board of directors meeting.* Directors elect officers per the bylaws, appoint committees and discuss steps to carry out the business plan, including the use of debt capital, a membership drive and development of manager qualifications.
- *Hold a membership drive.* This should be done when a new co-op needs more members than those who have already

- committed. Arrange meetings with prospective members and communicate the vision and goals of the new co-op.
- *Acquire capital.* The board arranges for adequate capital, including equity stock and borrowed funds. Financial analysis in the business plan helps determine capital needs.
 - *Hire a manager.* The board hires a qualified manager who will be responsible for day-to-day operations and hiring staff.
 - *Acquire equipment and facilities, then begin operations.* The manager and board together — according to the business plan — determine what facilities and equipment are needed and then acquire or rent them. The manager hires employees to operate the co-op.

Detailed explanations of each of these four phases and the 12 steps or events are provided in the guide.

In developing a co-op, there is more to know than the various phases and steps to follow. There are principles to understand and pitfalls to avoid. There are various ways to capitalize the co-op that may need to come into play. There are legal aspects of development that need to be researched and considered, and there are general rules for success that should be well understood.

Development principles

Cooperation Works!, a network of cooperative developers, created 12 important principles that co-op development practitioners should follow when working to form co-ops. Known as the Madison Principles, they include:

- Declare conflicts of interest
- Develop co-ops using proven models
- Facilitate the goals of the steering committee
- Use a market-driven approach
- Acknowledge the importance of member involvement
- Seek tangible benefits
- Steer toward revenue generation
- Honor diversity
- Make cooperative-to-cooperative connections
- Promote social and economic empowerment
- Understand that cooperatives work everywhere
- Have a vision of the cooperative community that is global

For more information on these principles, see the CIR 7 guide and/or visit: www.cooperationworks.coop/about/madison-principles.

Pitfalls to avoid

There are pitfalls that must be avoided when forming a co-op. Being aware of them is crucial in steering clear of a fatal mistake. Avoid the following:

- Lack of a clearly identified mission
- Inadequate planning
- Failure to use experienced advisors and consultants

- Lack of member leadership
- Lack of member commitment
- Lack of competent management
- Failure to identify and minimize risks
- Poor assumptions
- Lack of financing
- Inadequate communications

More information on each of these pitfalls is contained in the guide. Similarly, there are some general rules for success that should be understood as the co-op begins operation.

These include:

- Use advisors and committees effectively
- Keep members informed and involved
- Maintain good board-to-manager relations
- Conduct businesslike meetings
- Follow sound business practices
- Forge links with other co-ops

Considerable time and effort are spent in starting a co-op. Carefully completing all the steps necessary in the co-op project, following some well-derived principles, knowing and avoiding the potential pitfalls and knowing general rules for success will all help to increase the odds of developing a successful co-op business. ■

Guide has been updated

USDA's *How to Start a Cooperative* (CIR 7) has been updated and revised. This guide also provides information on topics such as capitalizing a cooperative and developing/adopting the necessary legal documents. The guide includes a number of sample documents and financial statements that a new co-op will likely need to create.

How to Start a Cooperative is one of Rural Development's most-requested publications. It is intended for rural residents interested in forming co-ops, as well as for development practitioners, professionals and students. It works well in tandem with another USDA report: *Vital Steps: A Cooperative Feasibility Study Guide* (Service Report 58). These co-op publications, in addition to many others, can be found online at: www.rd.usda.gov/publications/publications-cooperatives.

A PowerPoint presentation on organizing a co-op, based on the CIR 7 guide, is also posted there. To order free hard copies of USDA co-op reports, e-mail: coopinfo@wdc.usda.gov, or write to: Cooperative Information, USDA Cooperative Programs, STOP 3254, Washington D.C. 20250-3254, or call 202-720-7395. ■

The Master Paints production plant in Guayanilla, Puerto Rico, used funding provided by USDA's REAP program to install this expansive array of solar-power panels on its rooftop. The plant is now 100-percent solar powered. Photo courtesy Master Paints

REAP helps paint producer convert to solar energy

By Venus Welch-White

National REAP Outreach Coordinator
USDA Rural Business Programs



Developing renewable energy presents an enormous economic opportunity for rural America. USDA's

REAP (Renewable Energy Systems and Energy Efficiency Improvements Assistance) program can help farmers, ranchers, rural small business owners and cooperatives incorporate renewable energy and energy-efficiency technology into their operations. This helps to create jobs while making America more energy independent.

When small rural businesses and farmers cut their energy costs with cleaner and more efficient energy, it helps their bottom line and reduces the amount of greenhouse gas emission that affects our climate.

Master Paints, a paint manufacturer in Guayanilla, Puerto Rico, is one

example of a rural business that is putting REAP funds to good use. A REAP grant helped it convert to 100 percent solar energy. The business manufactures a myriad of paint and chemicals and offers a line of specialized lime-based protective coatings for the restoration of historic buildings and structures.

Master Paints' products have been used in historic preservation jobs in Puerto Rico, Florida, South Carolina and the Caribbean. It is the only Puerto Rican company certified by Green Seal, an independent nonprofit organization based in Washington, D.C., that works to achieve a healthier and cleaner environment by identifying and promoting products and services that do not contaminate or emit toxic residues.

The Green Seal is awarded to products and services that promote conservation of resources and habitats, and that help reduce global warming and the depletion of the ozone layer. In

2012, its first year with the new solar generation system, Master Paints generated 287,372 kilowatt hours of power. Total savings for the business was \$71,000 that year.

Funding sources for the project were:

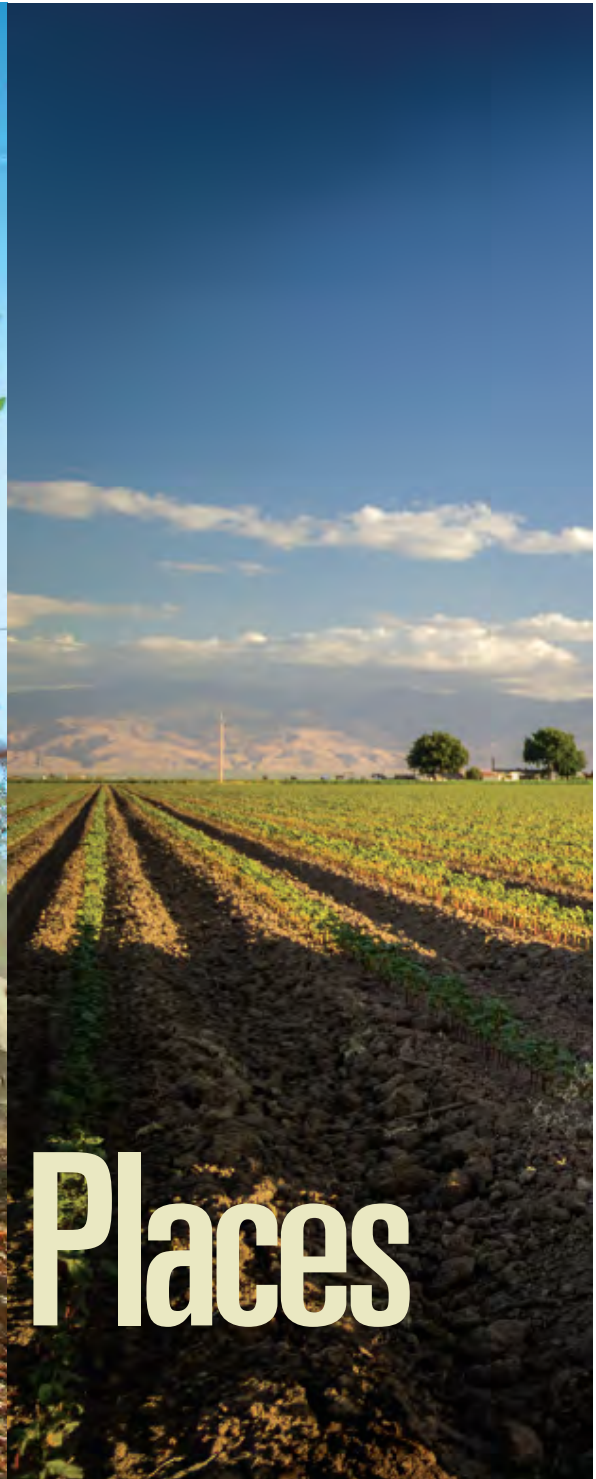
- Rural Development-REAP Grant, Section 9007 — \$206,955;
- Green Energy Fund (a Puerto Rico incentive program) — \$380,785;
- Owner's contribution — \$240,260.

"All of the above" approach

Renewable energy production and increased energy efficiency are important parts of the Obama Administration's "all-of-the-above" energy strategy. Reducing the energy costs of agricultural producers and rural small businesses is an important element of the 2014 Farm Bill.

Since 2009, USDA has awarded \$545 million for more than 8,800 REAP projects nationwide. This includes \$361

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Trading Places

As drought squeezes California, almonds continue to surge while cotton fades

By Dan Campbell, editor

e-mail: dan.campbell@wdc.usda.gov



Charles Fanucchi's father first planted cotton on the family farm south of Bakersfield, Calif., in

1925, when the crop was new to the state. The irrigated crop thrived in the hot, dry climate. More and more farmers planted it. During the 1970s, the Golden State's cotton acreage peaked at about 1.65 million acres.

California doesn't just grow cotton; it has long been a major center of

cotton innovation. It was among the first areas of the U.S. to grow irrigated cotton and the first state to machine-harvest cotton. It also introduced premium cotton varieties that earn growers top dollar. It was first to market U.S. cotton in China and many other export markets.



Facing page: Almond harvesting has become highly mechanized with the development of specialized machinery, such as this tree shaker. Photo by Mel Machado, courtesy Blue Diamond Growers. Above: California's 2015 cotton crop may not even hit 200,000 acres, due both to the drought and changing crop patterns. Here, rows of young cotton plants are about to be cultivated in Kern County. Photo by Mark Bagby, courtesy Calcot

In the 90 years since they sowed that first cotton, the Fanucchi family has always grown cotton on its diversified farm in the southern end of the state's fertile Central Valley. That is, until now.

"We never thought the day would come, but we won't be planting any

cotton at all this year," says Fanucchi, a director and past chairman of the Calcot growers' cooperative, headquartered in Bakersfield. "Cotton just won't cover the cost of the water it needs." It was an emotional decision for the family, for whom cotton has been such a huge part of their lives for so long.

"But it gets down to water availability and the cost of water vs. the expected return for cotton or other crops," he observes. "It's all a financial equation, and it must balance out."

To save water, close to 800 acres of the family farm will be fallowed this year, due to lack of affordable irrigation

water. So will at least another 400,000 acres of farmland around the Central Valley as growers and their cooperatives contend with the worst year of a staggering, four-year drought. (*The University of California-Davis was scheduled to release an updated estimate of fallowed farmland in the state in June, after deadline for this magazine.*)

Those 400,000 fallowed acres represent an estimated \$4 billion in lost production value. Further, when land isn't planted, supplies and services are not purchased, less labor is needed, less tax revenue is generated — the impact ripples throughout the economy of the Valley.

In a normal water year, a large part of Fanucchi's farm would be irrigated with water delivered by the Friant-Kern Canal, part of the giant Central Valley Project, built in 1951 and operated by the U.S. Bureau of Reclamation. It transports water from Millerton Lake, a reservoir on the San Joaquin River north of Fresno, to the Kern River. It is normally a major source of water for farmers in Fresno, Kern and Tulare counties.

But like virtually all Central California farmers this year, Fanucchi's allocation of "federal water" has been reduced to zero, meaning he will have to pump more ground water for his farm's needs. Fanucchi has his own wells, and the local water district also has wells to help supply members.

Pumped groundwater is usually much more expensive than riparian

"We never thought the day would come, but we won't be planting any cotton at all this year," says Charles Fanucchi (above). The drought in California and high cost of water have accelerated his farm's shift to higher value crops, while other land will be fallowed. Photo by Mark Bagby, courtesy Calcot. The Delta-Mendota Canal is a major source of irrigation water for thousands of farms, but a four-year drought has resulted in drastic reductions in water allocations. Photo by Mel Machado, courtesy Blue Diamond Growers



(river) water, and is of lower quality, being higher in salt and mineral content. Hence, many growers will be pulling land out of production this year and hoping that snow returns to the Sierra Nevada Mountains next winter. This year's snowpack was the lowest ever recorded, and it is this mountain snow that feeds the state's rivers and reservoirs as it melts during the spring and summer.

Long-term trend

Even without the drought, the long-term trend since the mid-1970s has been for cotton acreage to be transitioned into higher value crops, usually nut or fruit trees, grape vines or vegetable crops. That's certainly been true for Fanucchi, who farms with his two brothers and some of the family's next generation. "It's been a gradual transition away from cotton for us," he says.

A tell-tale sign of that trend was the closure this year of his local co-op cotton gin. "That, too, was a tough decision — you hate to see it happen." But there just wasn't enough cotton volume to keep it going, he says. Kern County, which is about the size of Connecticut, was once home to about 40 cotton gins, but now has only two. Both are co-ops, and have the capacity to absorb the crop that would have been handled by the closed gin.

Calcot itself does no ginning — it is strictly a marketing co-op, which assembles, sells and transports cotton to destinations in the U.S. and about 30 nations around the globe.

Fanucchi is far from alone in following the path away from cotton. The state has averaged only about 300,000 acres of cotton the past five years, and in this drought year, cotton will likely not even reach 200,000 acres, according to Calcot Communication Director Mark Bagby.

The Fanucchi family started growing almonds, which they market through the Blue Diamond Growers

Why California dominates world almond production

Mel Machado, Blue Diamond Growers' director of member relations, points out some of the reasons California has climbed to the top of the world almond tree:

- A Mediterranean-like climate perfectly suited to the crop.
- The almond industry is heavily mechanized, reducing its need for large amounts of seasonal labor, compared to other crops.
- Once harvested, almonds are relatively easy to store and have a long "shelf life" that enhances their value for exporting.
- The state has a multi-faceted infrastructure developed to support almond growers. This includes tree nurseries, equipment builders who churn out the specialized tree shakers and nut sweepers needed at harvest, irrigation system manufacturers, crop advisors who understand the intricacies of growing almonds, as well as technically advanced processing plants.
- A number of reports have found that almonds, eaten in moderation, can be an important part of a healthy diet, fueling public demand.
- Almonds can be sliced, diced, slivered and "you name it" into hundreds of sizes and shapes.
- Snack nuts are actually a small part of the market, with most almonds going to the food ingredients market, where they are used on everything from pastry to breakfast cereals, vegetable mixes to salads; and chocolate bars to ice cream.
- Almonds can also be processed into almond paste to supply the huge demand in Europe for marzipan. Blue Diamond and others are constantly developing new almond foods, such as the co-op's Almond Nut Thins snack crackers, Breeze almond milk beverage and almond butter.
- Last, but not least, a good supply of irrigation water — drought or no drought. ■

cooperative, about 40 years ago. They have also been shifting other cotton acreage to vegetable crops, including carrots, tomatoes, garlic and onions. One effect of the drought has been to shift more vegetable crops away from the west side of the Valley, where the water situation is worse, to the eastern part of the Valley, says Fanucchi.

"Farmers grow 200 different crops in Kern County, so they have a lot of alternatives to cotton," says Calcot's

Bagby. "Increasingly, they have elected to turn to those alternatives, with almonds by far being the biggest one."

Helping to offset some of the lost acreage in California have been new members Calcot has picked up in Arizona, New Mexico and far-west Texas, the latter two states being fairly new territory for the co-op. One irony of the trend, Bagby says, is that "cotton paid the bills for a lot of those new acres of almonds."

Almonds now king of California crops

Almonds have been on a 50-year growth spurt that even the drought has not been able to slow. Indeed, almond trends are something of a mirror image of cotton.

Back in the mid-1970s, there were about 250,000 acres of almond orchards in the state. Today, there are about 890,000 bearing acres. With new (non-

Blue Diamond members earned an average of \$3.26 per pound in 2013, vs. a 10-year average of \$1.75. More than 90 percent of almond farms are family owned, with more than half of those being about 50 acres or less, according to Machado.

“People are planting them [almonds] like crazy,” says John Pucheu Jr., a third-generation farmer who grows cotton and other crops near

this drought year, the mix favors Pima by about four to one.

“We are fortunate to have very good, senior water rights on the San Joaquin River,” Pucheu says. Those rights date back to the late 1800s. Still, even he is bracing for “a significant increase in water costs. The riparian water is basically free, but a larger percentage of our water will come from wells this year.

“Many growers have no surface water, and will be relying entirely on wells.”

bearing) orchards counted, the total is now just over 1 million acres.

Despite the drought, growers are still planting almonds at a good clip, according to Mel Machado, Director of Member Relations for Blue Diamond. At first glance, this might seem illogical, since permanent crops — i.e., trees and vines — must be watered even during a drought, no matter the cost, whereas field crop land can simply be idled.

“You may see an orchard being pulled out, and perhaps it’s only a 1,000-pound producer [a good orchard can produce 3,000 pounds per acre]. But it still is making OK money at today’s prices,” Machado says. “So you can question the logic there. But if you look closer, you will see that the grower is consolidating his water supply. If you have an orchard within a few years of being scheduled for removal, you do it a little early so that you can move more of that expensive water to your better orchards.”

And even if immediately replanted, the young, non-bearing trees require much less water. Machado explains that a mature almond orchard needs an average of 36-40 inches of water per year, but an orchard of almond seedlings can get by on 16 inches of water, gradually increasing as it begins to set a nut crop worth harvesting in about its fourth or fifth year.

Tranquillity, about 35 miles southwest of Fresno. “The more we plant, the higher the price goes — it defies all traditional agricultural economics. Usually, when the market is good, everyone rushes into it, and then it crashes.” But almonds are in such heavy demand (see sidebar, page 13) that there appears to be no “crash” in sight, he says.

And so Pucheu, a former chairman of the National Cotton Council and a Calcot director and past chairman, has jumped onto the almond bandwagon. He planted his first almonds, about 400 acres, in 2014 and is planting more this year. “So I hope the trend keeps going for a number of years yet. But eventually, supply will catch up with demand.”

Pucheu isn’t putting all of his eggs in two baskets, however. In addition to cotton and almonds, the family grows canning tomatoes, alfalfa for seed and onions for dehydration. He has also specialized in growing nothing but Pima cotton, a variety known for its extra-long, strong fiber which is in demand for products such as quality dress shirts, bed sheets and towels. It earns about 50 percent more than Upland cotton. California’s cotton mix has shifted from nearly all Upland cotton 15 years ago to about three Pima acres for each Upland acre — and in

“Many growers have no surface water and will be relying entirely on wells. Those are the areas where we are seeing some marked drops in the water table,” Pucheu says. This starts a vicious cycle: the more you pump, the more the water table drops and the more expensive water gets. When a well goes dry, you have to drill a new, deeper well. But drilling businesses report having an eight-month or longer backlog of job orders.

USDA estimated the 2014 almond crop at 2.1 billion pounds, but at harvest it tipped the scales at 1.87 billion pounds. The nut crop had shrunk between the June estimate and September harvest due to water stress, Machado says. He believes a similar situation could well occur this year.

State’s highly complex water picture

Depending on where they farm in the Central Valley, growers can get water from the federal water project, the state water project, any number of local water districts with reservoirs and wells, their own river water rights and from their own wells — or all of the above. It can get quite complicated.

Daniel Bays is a young (28) Blue Diamond member who farms with his father, Ken, and grandfather, Gene, near the town of Patterson on the west



“Overall, our water costs will be three to four times higher than in a non-drought year,” says Daniel Bays, seen here checking on his almond trees. Photo courtesy California Almond Board. Below: A nut cart hauls a load of almonds to a waiting truck for transport to a hulling co-op, from where they will be shipped to a Blue Diamond processing plant. The Delta-Mendota Canal. Photos by Mel Machado, courtesy Blue Diamond Growers

side of the Valley. In addition to almonds, the Bays family grows walnuts, apricots, processing tomatoes, lima beans, wheat and melons.

“This is the first big drought I’ve had to contend with since I became involved in the farm management,” Bays says. “But my dad and granddad talk about a bad drought in the early 1990s and another — which they call ‘the big one’ — in 1977. We face major differences now, the biggest one being in how the state and federal water

projects — which so many growers depend on — are managed.” More water is now being reserved to meet stricter environmental standards, Bays says, meaning farmers have to scramble more to make up the difference.

The Bays’ family farm serves as a good example of the state’s complex water picture. Different portions of the farm get water from three different rivers: the Stanislaus, Tuolumne and Merced Rivers, and via three different water districts. The West Stanislaus and

Patterson Water Districts draw water from San Joaquin River and the Central Valley Project via the Delta Mendota Canal (part of the federal water project). For the second consecutive year, they will get no federal project water.

They also belong to the Del Puerto Water District, which draws all of its water from the federal project. The portion of the Bays’ farm served by this water district is thus most impacted by the drought. They will have to depend on pumps for all their irrigation water on that acreage, greatly increasing their production costs.

“Overall, our water costs will be three to four times higher than in a non-drought year,” Bays says. “Our contract price of Del Puerto District water is now \$75 an acre foot, but we have had a zero allocation for 2014 and 2015. Well water is costing \$250 an acre foot. The West Stanislaus Irrigation District raised its price from \$75 an acre foot last year to \$135 this year, but delivery has since been curtailed because they can no longer pump San Joaquin River water.”

It takes about 3.4 acre feet of water to grow almonds on his land. “If you try to buy water on the open market, it will probably cost \$1,000 to \$2,000 an acre foot, if you can even find any.” The higher cost of water drives the switch from rows crops to higher value tree crops, Bays says.

Bays has fallowed about 200 acres of land due to drought. That includes about 40 acres of older almond trees that would normally have been kept in production for several more years. Most of the other 160 acres would have been planted with processing tomatoes.

Almost all of his orchards are irrigated with drip or micro-sprinkler systems. These watering systems have become the norm in the past 25 years or so, replacing traditional flood irrigation practices. Machado’s rough estimate is that at least 70 percent of the co-op’s growers have low-volume irrigation systems.

By limiting the area watered to a tree's root zone, water is used much more efficiently, Bays explains. The results can be dramatic; his drip/micro sprinkler system has in some cases helped to nearly double his almond yield, from 1,500 pounds to 3,000 pounds per acre.

Drip systems also allow Bays "to more accurately follow a deficit-irrigation strategy." That's the amount of water he will "dial back" from normal. This year, he will likely have to cut back to 75 percent of normal watering on most of his orchards. "That is a serious step to take," he says, "because it not only will reduce this year's crop, but next year's as well because of the loss of bud-wood development caused by water stress this year."

Machado says the impact of deficit watering may actually take a bigger toll on the 2016 crop than on this year's.

Dealing with media

Another way almonds and cotton have traded places is in the manner they have sometimes been singled out for criticism for requiring such a large amount of the state's precious water. During the drought of 1977, it was cotton in the crosshairs of media criticism. Now it's almonds. With the crown goes the lightning rod.

In 1977, cotton growers were criticized for "using so much water to grow a low-value field crop that could be grown in other states," Bagby says. It would make more sense, according to this line of thinking, to instead use the water for high-value (tree and vine) crops. That is, of course, exactly what has happened in the ensuing 35 years, but the critics have simply found a new scapegoat, Machado says.

"Some people are saying almonds are the new cotton," notes Bays. "Almond growers feel like we are walking around with a target on our backs."

Farmers like Pucheu bristle when claims are made that agriculture uses 80 percent of the state's water resources.

"That doesn't count the 50 percent or so of water reserved for environmental purposes," he says. "In reality, agriculture uses about 40 percent of the state's water." And with that water, they supply the nation with more than half of its fruits, nuts and vegetables.

The water debate heated up when Governor Jerry Brown issued mandatory water restrictions requiring cities and communities to reduce water use by 25 percent, while imposing no new state restrictions on agriculture.

That led to some feelings of *'why do we have to let our lawns turn brown while farmers still get all the water they need,'* Machado says. "Of course, most farmers have already had their water reduced, sometimes drastically, and they are paying much more for what they do get." Nevertheless, Machado says the press "has been brutal toward agriculture in general, and almonds in particular.

"The big guy always gets kicked the hardest, and we are now the big guy," Machado says. By late April, when interviewed for this article, Machado said the media picture had improved substantially, with a number of fair, more balanced reports in the media concerning the water/agriculture situation.

Future issues

Not far from Pucheu's farm is a bypass canal which carries excess water out of the Kings River Basin. It may seem like a distant dream now, but in wet years, Pucheu has seen the bypass transport as much as 1 million acre feet of water to the ocean. "There is no way to store it for dry years," he says. "And that is just one river."

So what are the chances that California will ever again build some sizable new water storage projects to meet not just the needs of farmers, but also of its burgeoning population?

"Remote," says Machado. "Two new reservoirs have been on the books for years — Temperance Flat on San Joaquin River, east of Fresno, and the

Sites Reservoir on the west side of the Sacramento Valley." The latter would be an "off-stream reservoir" (i.e., run-off flows will not fill the reservoir; rather, water would be pumped into it from other sources). "Funding is supposed to have been provided through a water bond approved last year. But that is a long-term project. I doubt they will be completed in my lifetime."

California's population has climbed by 18 million people, to just under 40 million, since the 1970s, yet the state has done very little to increase its water infrastructure, Machado notes. "If we can build high-speed rail, why not new water infrastructure?"

Bagby asks a similar question: "If we can build transcontinental oil pipelines, why not a pipeline to ship more water to California?" With the bulk of the state's urban population being clustered on the coast — conveniently close to a large water supply called the Pacific Ocean — cities and the state should be doing far more to develop water desalination plants, he adds.

Farmer co-ops do much for their members, but they cannot make it snow in the mountains. And so they have been very proactive in helping to promote educational efforts aimed at the public, media and the legislature, Bagby says.

"We strive to help shape the debate over farm and water policies. We stress how farmers need less water than in the past to grow crops," Bagby continues. "An acre of cotton here used to need 36 inches of water, but we've reduced that to 30 inches or less." Almonds require nearly a third less water than they did 25 years or so ago, he adds.

"We have an incredible food industry here that is really a gift to the world; we produce an unmatched variety of foods and some of the world's finest cotton. Lost production here could mean less varied, more expensive produce for the nation, or importing crops from countries that have far less oversight in how the crops were produced. Co-ops

have a big role to play in continuing their efforts to educate the public about what is at stake here.”

While the state’s cotton industry has contracted, it remains important. When one considers that per-acre yields are about double what they were when the acreage peaked in 1970s, 300,000 acres of cotton today would be nearly the equivalent of 600,000 acres then.

Bagby recalls asking one grower why he was planting almonds in the midst of a drought. The grower responded: “Because it won’t last forever. Someday it will snow again in the mountains. Someday it will rain again in the Valley. I need to be ready.”

Machado recalls reading an account of another grower who was also asked why he continued to plant trees during a drought. His response: “Because I’m a farmer, not a watcher.”

“I think that tells the farmer’s story perfectly,” Machado says. “As a farmer, you take calculated risks, then you move forward. There is no such thing as farming without risk.”

Even though he planted no cotton this year, Fanucchi says he is not throwing in the towel on cotton — not even a 100-percent Pima cotton towel! “When the water situation improves and the numbers look better, we may well plant cotton again.” ■

USDA Drought Programs and Assistance

USDA has numerous programs that can help farmers, ranchers, rural small businesses and rural communities prepare, build long-term resilience, and respond to the impacts of drought. To read a summary of these programs, including web links to complete program descriptions, go to: www.usda.gov/drought.

Programs include conservation assistance that promotes soil health and water use efficiency; disaster programs that compensate producers for drought-related losses; and grants and loans that assist communities with rural waste and drinking water needs. ■

William O’Neal Jamison checks a solar-powered well and watering system that improves the productivity of this part of his Black Angus cattle ranch near O’Neals, Calif. The USDA Natural Resources Conservation Service (NRCS) assisted him with a cost share of three new photovoltaic panels that produce electricity to power the electric well pumps. The Environmental Quality Incentives Program (EQIP) provides financial and technical assistance to help producers address natural resource concerns and deliver environmental benefits, such as improved water and air quality, conserved ground and surface water, reduced soil erosion and sedimentation or improved or created wildlife habitat. USDA photo by Lance Cheung.



CO-OP *or* LLC?

Which business organization best serves members' interests?

By Bruce J. Reynolds, Ag Economist
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The Limited Liability Company (LLC) is one of the more recent ways to establish a business with government sanction and legal protections. While an LLC can be established by one individual, its regulatory provisions are also attractive for collective business ownership and are being used as an alternative to organizing cooperative businesses.

These two alternative business forms can be compared and contrasted on several regulatory requirements, such as differences in taxation. Yet, their regulatory differences alone do not provide sufficient information for making decisions about how to organize a business. It is also important to consider the strategic purposes of those seeking to build a business.

This article reviews the major regulatory differences between LLCs and cooperatives and discusses how they need to be valued, based on the purposes of any group wanting to own and build an enterprise.

Relative newcomer

An LLC combines the single-tax,

pass-through of partnership with the limited liability accorded to corporate forms of organization. In contrast to cooperatives, members can be patrons or investors or any combination thereof. The first limited liability company act was enacted by Wyoming in 1977. By the early 1990s, most states had passed similar statutes.

LLCs are often established and governed democratically as cooperatives. In some cases, this approach qualifies an LLC for access to lending programs that were established for cooperatives. LLCs have become a

Only cooperatives can both create equity from earnings and make a later distribution to members while incurring a single, pass-through tax.

popular way to organize due to the single-tax pass-through, flexibility regarding membership by both investors and patrons and in how earnings are allocated to members.

In an effort to offset the LLC advantage in access to investor capital, Wyoming adopted a new cooperative statute in 2005 that provided for non-patron investor members. A few states followed with similar statutes.

In 2007, a Uniform Limited Cooperatives Association Act (ULCAA) was made available for states to adopt so that groups can organize with advantageous features of both an LLC and a cooperative. The ULCAA requires an entity to adhere to cooperative principles. Fifteen states have adopted the ULCAA, but, based on this author's research, this option has not been widely adopted.

Some of the regulatory differences between LLCs and cooperatives are examined below, followed by an examination of the importance of purpose and long-term goals in guiding the choice of business organization form.

Advantages of LLCs

An LLC provides a set of business advantages that were not completely met by previous organizational alternatives such as partnerships,

S corporations, and cooperatives. General partnerships, commonly used for professional services, do not offer sufficient limited liability that is appropriate for many types of businesses. Although corporate forms of business provide limited liability, incorporation involves more steps and rules than the comparatively simple process of establishing an LLC. In addition, cooperative incorporation statutes require adherence to principles of cooperation, which some groups may regard as unnecessary for the business they want to establish.

As compared to cooperatives, LLCs have a complete pass-through of taxes on all earnings, from whatever source, and they can be allocated based on member investment. Subchapter T cooperatives require all patron-based cash distributions and non-cash equity allocations to be taxable to members, with gains from non-patron business taxable to the cooperative.

Even Section 521 cooperatives — by having more pass-through opportunities than Subchapter T cooperatives — are subject to limits on dividends from capital stock and member business must exceed that from non-members. Members of 521 cooperatives must be farmers and ranchers. Such restrictions do not apply to LLCs. For businesses with substantial revenues from non-member dealings, LLCs may have tax reduction advantages over cooperatives.

From the standpoint of raising capital, the most substantial advantage of LLCs over cooperatives is that they allow membership by investors who are not actively involved in using the business. While cooperatives often build capital reserves from non-member business, LLCs can also establish substantial permanent capital by using member investment in shares.

Where the advantage of access to investors really comes into play is in having appreciable and transferrable stock. In these cases, members of an LLC have an exit strategy with a market for selling their stock to new

investor members. By contrast, cooperatives with transferrable stock are usually limited in having only other users or patrons of the business as buyers; they cannot sell their shares to non-participating investor-members.

The ease of access to outside investment, member exit-strategy

Non-patron investors usually have no stake in perpetuating the particular set of services provided, nor a stake in a particular community.

attractiveness and the option of complete tax pass-through are big selling points. LLCs have been especially useful for joint ventures and for other businesses in which the principals are not seeking long-term commitment as stakeholders.

Advantages of cooperatives

Tax treatment of an LLC's retained earnings is complicated and not as favorable as cooperative tax treatment. Before 1997, if LLCs wanted to retain earnings for supporting their businesses, such retains were taxed at the members' personal rate. This limitation was removed in 1997 by an IRS ruling that provided the option for LLCs to select corporate taxation and retain earnings in the business. While the corporate tax rate is usually lower than personal rates, any distribution of dividends from such earnings would be taxable to members, so those earnings would be taxed twice.

A cooperative can be financed by its earnings and at a later date distribute those earnings as cash payments to patrons on the basis of a single-tax, pass-through. This flexibility is not available to LLCs. A cooperative can also redeem equity to members with flexibility as to when members will pay the single-tax, pass-through tax.

When issuing qualified notices, members pay the tax on equity that will be distributed later. In the case of non-qualified notices, the cooperative pays a corporate income tax on the allocated earnings to members' equity accounts. When it eventually distributes the equity as cash, members pay their taxes and the cooperative gets a tax credit. This effective means of financing a business and distributing earnings on a single-tax basis is not available to LLCs.

A lasting business

When members want to build a sustainable business — with democratic control by those who use its services — a cooperative will usually achieve that purpose better than an LLC. The opposite view is that in lacking a market for transferrable stock, traditional cooperatives have weak staying power because members inadequately invest for the future. These situations are dubbed “the horizon problem” when current owners cannot capture the value of investments that will benefit the next-generation of owners.

For large corporations with actively traded stock, such market mechanisms help resolve the horizon problem. Investments for the distant future are recognized in stock valuations in the current period. LLC members may capture gains from a business that appreciates in value but do not have access to a highly liquid market for their transferrable shares. This limitation creates incentives for patron members to increasingly sell shares to non-patron investors.

Non-patron investors usually have no stake in perpetuating the particular

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Focus On: Greenbelt, Md.

A city that runs on cooperatives

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The story of Greenbelt, Md., is a many-faceted, layered story about a town that has had an impact on how we look at cooperatives and the many ways they can deliver services to their residents. The focus of this article is on the history of cooperatives in Greenbelt, a suburb of Washington, D.C., that is home to nine cooperatives, with more forming. It will also touch upon the social implications of the decisions made over the years by planners, government officials and residents.

An experiment in community development

In 1937, the first families moved into the brand new community of Greenbelt. The town was rather unique, in that only three such “experimental towns” had been built to that date. One was in Greendale, Wis., the other in Greenhills, Ohio. An earlier attempt to develop a similar community in New Jersey had failed.

What made these towns unique is that the federal government was experimenting with new, social/community development concepts that promoted the idea of building whole communities — including schools, community buildings, churches, places of employment, etc. Potential tenants were interviewed with an eye toward finding residents who would be able, and willing, to build the social infrastructure needed for a viable community.



Greenbelt, Md., was one of three so-called “experimental towns” when developed in the 1930s. U.S. Library of Congress photo. Below: A scene from Alight Dance Theater’s production of “Hometown Heroes: 75 Years of Extraordinary Greenbelt Women,” which explored the experiences of women who lived in Greenbelt from the late 1930s to the present day. Photo by Eric Zhang



Greenbelters, as residents refer to themselves, went about doing just that, coaching and managing sports leagues, forming a newspaper cooperative, a grocery store cooperative and a credit union, among other co-ops. There was

so much going on that one holiday season the town council declared a moratorium on all meetings for two weeks so that families could enjoy time together.

Federal role ends

In the early 1950s, the federal government began turning away from some of President Franklin D. Roosevelt’s public works/job creation programs. Housing in Greenbelt was sold to the residents while community property was turned over to the incorporated City of Greenbelt. This caused much controversy, which is partly captured in a semi-documentary movie, “Three Brave Men,” in 1956, although it was not filmed on location.

In the movie, as in real life, many residents wanted the government to

continue to own the town and did not want their fellow neighbors to manage the housing cooperative. False charges were made that Greenbelters were communists.

But eventually the furor subsided, and most residents embraced the concept of replacing federal government ownership with resident-owned and controlled housing cooperative.

Greenbelt today

Today, the city of Greenbelt is home to about 23,000 people, 3,000 of them living in cooperative housing, 9,000 living in apartments and the rest in single family homes. Cooperatives still play a significant role in Greenbelt.

These include:

- *Greenbelt News Review* — believed to be the nation's oldest, continuously run worker cooperative newspaper;
- New Deal Café — serves as the “community's living room;”
- Greenbelt Co-op Supermarket & Pharmacy — simply referred to as “the Co-op;”
- Greenbelt Nursery School;
- Greenbelt Federal Credit Union;
- Rapidan Camp — located in the foothills of Virginia, although a Greenbelt Cooperative;
- Greenbelt Homes Inc. — a 1,600-member housing cooperative, believed to be the nation's largest and oldest housing co-op, outside of New York City.
- Evergreen Health Care — a healthcare co-op, recently created under the Affordable Care Act;
- Greenbelt Community Solar, LLC — an LLC founded with cooperative principles, including one member, one vote.
- Other businesses — which will become worker- or community-owned co-ops — are currently in the formation stage, including: Friends of the Greenbelt Theater, a community-owned, single-screen movie theater; The Franklin Park Early Learning Center; a composting business, and a thrift shop.



Construction workers lay the foundation of a new building in Greenbelt during the 1930s. Today, Greenbelt is home to nine cooperatives, with more being formed. U.S. Library of Congress photo. Below: Delivering the Greenbelt News Review, a newspaper produced by a worker cooperative, to Greenbelt Housing Incorporated Cooperative members. Photo by Eric Zhang



A hotbed of cooperatives

Why did the city of Greenbelt turn into a “hotbed” of cooperatives? The answer is most likely because of the design of the town and the way it came into being. It was a new town with founding principles that are still carried forward today as each new resident moves into it.

The design of the town was based on several ideas prevalent at the time, including the ideas of architect Lewis Mumford and the Garden-City Movement, which stressed the ideals of having a wholesome, safe environment for families.

In today's planning terminology, Greenbelt was designed under the New Utopia or New Urbanism planning concept. Houses are close together,

parking is in pods and walkways are separate from vehicle traffic. Stores, restaurants and community facilities are within walking distance, all with less emphasis on access by cars.

The community design, the effort to seek residents who wanted to build a community and early efforts to build cooperative enterprises by the early founders of Greenbelt, all combined to create a community with a strong co-op foundation that is able to adapt to change.

Now, 78 years later, current residents continue to encourage like-minded people to come to the community and to convince newcomers to embrace the Greenbelt way of life, living, shopping, working and governing cooperatively together. ■

By Carolyn B. Liebrand
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Editor's note: This article focuses on the findings of two cooperatives presented at the 2015 USDA Agricultural Outlook Forum, held in Arlington, Va. in February. The author welcomes your feedback on this article: Carolyn.Liebrand@wdc.usda.gov.



Dairy Farmers of America (DFA), based in Kansas City, Mo., and New Zealand-based Fonterra are both

producer-owned cooperatives that have dominant roles in their country's dairy industry. Their members each produce around 40 billion pounds of milk annually (table 1).

Each of the cooperatives provided an overview of their international marketing efforts during the 2015 USDA Agricultural Outlook Forum. Jay Waldvogel of DFA discussed the cooperative's approach to trade with China. From the other side of the globe, Rick Pedersen gave Fonterra's global perspective on sourcing dairy products around the world.

DFA is a leading milk marketing cooperative and dairy food processor that was formed by a merger of four dairy cooperatives in 1998. Since then, more dairy cooperatives have merged into DFA and the cooperative now has more than 14,000 farmer-members who operate more than 8,000 farms in 48 states. DFA members produced nearly 20 percent of the nation's total milk supply in 2013.

DFA is also a dairy foods processor with investments in brands and plants that bring added value to members. The co-op delivers raw milk to various customers and joint venture partners. It also makes cheese, butter, dairy ingredients and various consumer products in its extensive, nationwide system of manufacturing plants. Counting both member and non-member milk, DFA uses about 30



How two dairy cooperatives function in world markets

percent of the nation's milk for its activities.

The co-op's core business is marketing members' milk, paying members a competitive price and providing leadership in the forging of dairy industry policy. In addition, DFA offers programs and services aimed at making it easier and more profitable for their members to farm.

Fonterra (which means "spring from the land") was formed in 2001 to represent the interests of most of New Zealand's dairy farmers. The milk produced by Fonterra's 10,500 farmer-shareholders in New Zealand amounts to more than 90 percent of the country's milk. However, over one-fourth of the total milk processed annually by Fonterra worldwide —

about 50 billion pounds in 2013 — is sourced from outside of New Zealand.

Fonterra is the world's largest dairy exporter, Pedersen said, sending milk products to 140 countries. Fonterra sources some of its fresh milk from within such key markets as Australia, Chile, Brazil, Sri Lanka and North America. The cooperative also produces its own milk in China on two farms with three additional farms under development. Fonterra produces more than 4 billion pounds of dairy ingredients, specialty ingredients and consumer products annually, nearly all of which is exported.

Global dairy trade

Global milk production is led by the 28 countries that make up the European

Union (EU), the United States and India. The EU produced more than 300 billion pounds of cow's milk in 2013, while the U.S. produced around 200 billion pounds. India produced 127 billion pounds of milk from cows and another 170 billion pounds from buffalo.

However, less than 10 percent of global dairy production is traded across national borders. According to Pedersen, in terms of total product-pounds, the top exporters are the European Union, New Zealand and

then the United States. The top importers are China and Russia, followed by Mexico.

Table 2 shows milk production and export levels of four major dairy products that are commonly traded internationally. The United States is a leading producer of cheese, nonfat dry milk (NDM) and butter. New Zealand is the world's top whole milk powder (WMP) producer.

The United States exports a minor share of the cheese, butter and WMP it produces (6, 11 and 36 percent of

Facing page: A food lab technician tests cheese formulations at Dairy Farmers of America's (DFA) plant in Turlock, Calif. These bags of DFA whole milk powder (below) are heading for one of the co-op's export markets. Photos courtesy DFA



Table 1 — Milk production in the United States and New Zealand, 2013

COUNTRY	COWS MILK PRODUCTION		DOMESTIC FLUID USE	DFA		FONTERRA	
	<i>Billion pounds</i>	<i>Percent of total* production</i>		<i>Billion pounds</i>	<i>Percent of domestic production</i>	<i>Billion pounds</i>	<i>Percent of domestic production</i>
United States	201	19	31	39	19		
New Zealand	45	4	2			41	91
Total*	1,032	100					

Sources: *Hoards Dairyman*, USDA Foreign Agricultural Service

* Total, 16 selected countries

domestic production in 2013, respectively). NDM is the only product where a majority of the U.S. domestic production was exported in 2013 (58 percent).

In contrast, New Zealand exports almost all of the dairy products it makes. It is the world's leading exporter of butter and WMP. Indeed, more than 60 percent of the butter and whole milk powder traded worldwide in 2013 were

exported from New Zealand.

Contrasting marketing environments

The statistics outlined in tables 1 and 2 highlight the different market environments faced by dairy producers in the two countries. The United States produces almost 20 percent of the milk produced worldwide, but uses nearly one-third of it for fluid purposes within

its borders. In contrast, New Zealand ranked seventh among the milk producing nations and accounted for less than 5 percent of worldwide milk production in 2013 (USDA Foreign Agricultural Service). Furthermore, just 2 percent of the milk produced in New Zealand is used for domestic fluid use.

The sheer size and dynamism of the U.S. market has drawn multinational dairy companies, including Fonterra, to

Table 2 — Dairy products, production and exports, 2013

COUNTRY	PRODUCTION	RANK ¹	SHARE	EXPORTS	SHARE	RANK ¹
	<i>Million pounds</i>		<i>Percent of total* production</i>	<i>Million pounds</i>	<i>Percent of domestic production</i>	
Butter						
United States	1,863	3	9.2	203	10.9	3
New Zealand	1,179	4	5.8	1,120	95.0	1
Total*	20,172			1,797		
Cheese						
United States	11,100	2	28.6	699	6.3	2
New Zealand	686	8	1.8	611	89.1	3
Total*	38,830			3,721		
Dry Whole Milk Powder						
United States	73	11	0.7	26	36.4	6
New Zealand	2,866	1	28.8	2,846	99.3	1
Total*	9,963			4,396		
Nonfat Dry Milk						
United States	2,108	2	24.2	1,224	58.1	1
New Zealand	891	4	10.2	864	97.0	3
Total*	8,715			3,666		

Source: USDA Foreign Agricultural Service

¹Rank among reporting countries

* Total, 13-20 selected countries representing approximately 90 percent of world trade volumes

the U.S. market (USDA Economic Research Service). New Zealand’s milk production far surpasses the ability of its domestic market to absorb it. So, export markets are vital to the livelihood of New Zealand’s milk producers.

Export markets are growing in importance for the U.S. dairy industry. Dairy exports from the United States rose from about 5 percent of total milk solids produced in early 2000s to 15 percent in 2013-14.

Export markets became more attractive to U.S. suppliers as world prices for dairy products converged with domestic prices, in part because of tighter global stocks of dairy products, milk production declines and rising demand in various foreign countries. The relatively weak dollar value vs. some major foreign currencies also played a role (although recently, the

Milk curds are churned at the DFA plant in Turlock. Photo courtesy DFA



Table 3 — Milk marketing environment, Dairy Farmers of America and Fonterra

Attribute	DFA	Fonterra
Milk production	Thirty percent of the nation’s milk production is domestic fluid use. (62 billion pounds in 2013.)	Two percent of the nation’s milk production is domestic fluid use. (1 billion pounds in 2013.)
Co-op’s role in the domestic market	Significant (members produce 19 percent of domestic production). Co-op markets 30 percent of the nation’s milk.	Dominant role (members produce 91 percent of domestic production).
Export markets	<p>Volume exported growing — from about 5 percent of total milk solids produced in early 2000s to 15 percent in 2013-14.</p> <p>Minor shares of the nation’s butter, cheese and whole milk powder are exported. Majority of the nation’s nonfat dry milk production is exported (58 percent).</p>	<p>Must grow milk supply from international sources to maintain international market presence.</p> <p>Almost all of the dairy products produced domestically are exported (89 to 99 percent).</p>
Co-op’s export strategy	Enter markets where the co-op’s products can compete. Follow their U.S. customers into foreign markets. Focus on building lasting relationships directly with international customers.	Develop a global manufacturing footprint. Source milk supplies globally utilizing a multi-hub strategy to match demand growth to best source of supply. Invest in foreign dairy farms to enhance downstream partnerships.

dollar has strengthened). The favorable conditions spurred some U.S. dairy marketers to seek to become reliable suppliers to world markets, rather than making intermittent sales of surplus products. The increasing quantities exported also contributed to bolstered prices for U.S. producers.

Different approaches to markets

As cooperatives, Dairy Farmers of America and Fonterra are each owned and controlled by their producer-owners; they are operated to best secure optimal market outlets for their members' milk.

However, a cooperative's structure and operational focus reflect the character and aspirations of its membership. This is influenced by the economic, social, market and agricultural environment members operate in (Ling, USDA Cooperative Programs). Accordingly, DFA and Fonterra have taken different approaches to find and preserve markets for their members' milk (table 3).

DFA's approach — Waldvogel explained that DFA's approach to world markets is to build upon the capacity it has developed domestically. He pointed out that export markets offer "more people, more money, more places." International markets can be a viable outlet for ever-expanding U.S. milk production, a growing opportunity to market member milk.

DFA's approach to exporting is to:

- Enter markets where DFA is competitive;
- Focus on volume growth and value-added products;
- Build relationships in international markets;
- Understand and manage risk.

As an example of DFA's strategy for international marketing, Waldvogel described the co-op's efforts in China. DFA's products are competitive in China due to that country's "food challenge": a large, growing population and limited farmland and fresh water all

combine to contribute to relatively higher cost of milk production. The co-op focuses on developing new market demand by developing premium and new value-added products.

DFA supports its customers who sell into global markets. The experience gained in working with the customers' exporting efforts provided opportunities for DFA to cultivate relationships directly with businesses in China. For example, the co-op now has a joint venture with a Chinese company.

DFA built a plant in China to demonstrate DFA's long-term commitment to the Chinese market. The goal of the joint venture is to supply new needs, not replace existing suppliers. Supply agreements with national and global customers will expand the market for member-producers' milk.

Fonterra's approach — By necessity, Fonterra has been more aggressive in entering international markets than DFA. Due to population growth, rising prosperity in developing nations and urbanization, Pedersen expects worldwide consumption of dairy products to rise some 36 percent over the next decade, requiring a whopping 1.4 trillion pounds of liquid milk to make those products.

The co-op's New Zealand production base has limited capacity for growth. Therefore, as world trade expands, its market share could shrink, perhaps undermining the co-op's dominant role in world trade.

To complement the production of their New Zealand farmer-shareholders and to ensure they are always able to supply their customers, Fonterra has developed local supplies of fresh milk in key foreign markets. In addition, through its partnerships, the co-op has a global manufacturing footprint and can source a variety of products from its various "hubs" around the world. Calling this a multi-hub strategy, it allows the co-op to better match demand growth to the co-op's best source of supply.

Fonterra views China as a key strategic market because it is one of the world's largest markets for dairy products. It is a key market for Fonterra ingredients, foodservice and consumer products. Fonterra is seeking to enhance its already significant presence there by investing directly in dairy farms. The co-op believes the local milk supplies will provide it with a platform to develop partnerships down the marketing chain within China.

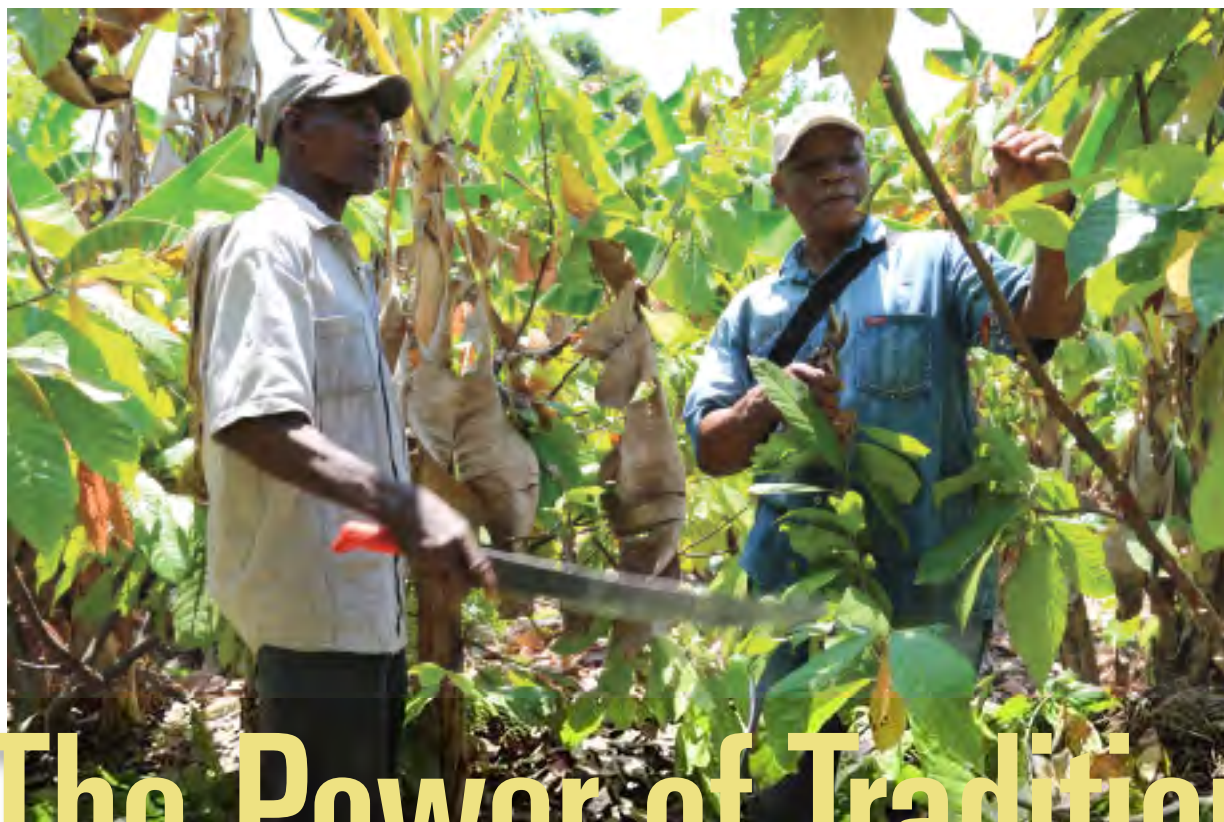
Cooperation works

These two cooperatives show that the cooperative form of business is effective in securing markets for dairy farmers. The examples of DFA and Fonterra illustrate the far-reaching efforts cooperatives can and do take to efficiently market milk and dairy products to domestic and world markets. Cooperation has allowed farmer-members to focus on the efficient production of quality milk by assigning the marketing function to their cooperatives.

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Tongas, or community farming groups, are making a comeback in Colombia, where they are helping members work together to produce crops such as cocoa and plantains. Photos courtesy ACDI/VOCA

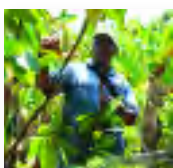


The Power of Tradition

*Tongas unite Afro-Colombian farmer associations,
grow local economies*

By Hannah Guedenet
Communications Technical Manager
ACDI/VOCA

Editor's note: This article was provided courtesy of ACDI/VOCA, a nonprofit that helps to enable financial institutions, cooperatives, producer associations and other enterprises to manage and finance themselves.



For Maria Adelaida González, the rebirth of the traditional Colombian tonga, a community farming group, has strengthened her ability to

provide for her family.

“I was widowed and left to manage my husband’s farm,” says González, a member of the Northern Cauca Association of Traditional Farm Producers (ASPROFINCA). “The tongas have helped me, because now I’ve learned almost everything that men do on the farm. I learned how to plant cocoa and plantain, how to prune the trees, and how to harvest.”

The tongas are a traditional method of farming that has been slowly dying out in many Afro-Colombian communities. But with the support of the United States Agency for International Development’s (USAID)

Afro-Colombian and Indigenous Program (ACIP), ASPROFINCA and other farmer associations like it are organizing tongas that meet regularly to work on a different community member’s land and address issues that their farmers are facing. Support for each other ranges from repairing roads after landslides to building additional rooms in a home.

ASPROFINCA is an association of 600 Afro-Colombian farming families in the Cauca department of Colombia’s Pacific region. Despite the diversity and richness of resources throughout Colombia, poverty is a very real concern in northern Cauca. In 2013, 58

percent of Cauca's population earned less than \$86 per month; 28 percent earned less than \$42.

Strengthening communities, preserving cultural practices

Despite participation in a farming association, most farmers are still isolated; they may only interact with

ACIP uses the tongas to teach improved planting and harvesting techniques, such as tree pruning, to boost productivity. These techniques, combined with traditional farming practices, enable farmers to produce the quality and quantity of goods needed to be competitive in local markets.

In addition to tongas, ACIP ensures

techniques also helps to protect the environment and promotes "climate-smart agriculture." By relying on crop diversification, ASPROFINCA farmers improve their soil quality and are able to produce more on a small plot of land. Their farm diversity is also a positive response to large expanses of industrial mono-crop farms —

The growers use the additional income to buy fertilizers, construct storage facilities or invest in farming equipment.

one another during harvest. Tongas build collective responsibility and engagement in Afro-Colombian farmer associations. Individuals are able to see that the success or failure of their neighbor's farm has an impact on their own lives. They are able to share experiences and support each other.

"For Afro-Colombians, the tonga means we work together. Tongas produce great outcomes, especially because we have a lot of farmers that are now elderly that cannot handle the hard work anymore," says Jorge Milton Mosquera, an ACIP participant.

the preservation of Afro-Colombian "finca tradicional," or traditional farms, which typically produce a diverse combination of subsistence and cash crops. An average ASPROFINCA farm produces cocoa, plantain, bananas, oranges, mandarin oranges and limes. These farms also reserve a section for medicinal plants, of which they have a rich knowledge. As with many other cultural practices, this knowledge is being lost with modernization. ACIP is helping these communities to regain their expertise in medicinal plants.

Returning to traditional farming

primarily sugarcane — that are common in northern Cauca.

Increasing market access for producer associations

The burden for food production does not lie solely on the shoulders of farming families. Farmers are just one component in the chain of actors that moves goods from field to consumers. A major obstacle for smallholder farmers is being able to get their products to market. They don't have strong connections with buyers, let alone input suppliers or processors. This leaves

Restoring ancestral farming methods

USAID's ACIP project promotes the preservation of ancestral farming traditions and ethnic identity among farming associations. The project uses a multi-pronged approach to improve economic and societal outcomes for Afro-Colombian and indigenous communities.

Afro-Colombian farming communities in the rural areas of Colombia face myriad challenges in addition to poverty. Displacement of large numbers of people has occurred. The

quality of their land is threatened by their proximity to large-scale mining and monocrop farming industries.

Implemented by ACDI/VOCA, a U.S.-based nonprofit organization that promotes economic opportunities around the world, ACIP is the first stand-alone program whose sole purpose is to improve the lives of disadvantaged ethnic populations in Colombia. ■

them vulnerable to market fluctuations and predatory market practices.

Before working with ACIP, ASPROFINCA farmers were dependent on unreliable, and sometimes dishonest, middlemen buyers. These buyers would take their goods with a promise to pay them once the goods were sold at market. But farmers had no power to negotiate a fair price or even to ensure that the buyer returned with a payment.

The association now relies on *tongas* to harvest and gather produce from each farm. ASPROFINCA collects farmers' goods in rented trucks. Farmers receive same-day, upfront payment. Through this aggregation system, ASPROFINCA sells more than 1,500 kilos of plantains weekly. The use of their collective bargaining power allows association members to be more competitive on the market and to achieve higher prices for their goods.

In Cauca, ACIP partners with ASPROFINCA to strengthen connections along the cocoa and plantain value chains. The association has developed significant linkages with national and regional markets. For

Tongas members (above and below) prune cocoa trees. These associations build collective responsibility and engagement among Afro-Colombian farmers.



cocoa for export to Peruvian and Ecuadorian markets.

All of these elements work together

to guarantee a steady market — and a reliable income — for Afro-Colombian farming families, which helps them

“The *tongas* have helped me... I learned how to plant cocoa and plantain, how to prune the trees and how to harvest.”

example, they have a formal agreement with Colombia's largest cocoa trader, Nacional de Chocolates.

Due to daily fluctuations in global cocoa prices, cocoa farmers could not rely on a steady income. ASPROFINCA now buys farmers' dried beans at a set price that is slightly lower than the market average. Farmers are willing to reduce the price in return for a more predictable cash flow and because they know that the margin is reinvested in the association, which benefits all members.

ASPROFINCA is also in negotiations with traders to sell their



break out of the cycle of subsistence living and poverty. They now plan for the future.

The growers use the additional income to buy fertilizers, construct storage facilities or invest in farming equipment. In the end, these gains benefit all members of the household. There is more nutritious food on the table, children attend school and families grow their savings. The Afro-Colombian communities can take pride in their accomplishments, while also staying true to their rich culture and history. ■

FirstNet broadband network can enhance rural safety

By T.J. Kennedy

Acting Executive Director
First Responder Network Authority

Editor's note: USDA Rural Development is among the federal agencies participating in the effort to ensure that a wireless public safety network is available nationwide.

USDA Rural Utilities Service borrowers — including some rural electric and rural telephone cooperatives — are also part of the FirstNet efforts. For more information, visit: www.firstnet.gov.



Public safety professionals put their lives on the line every day to protect our health, safety and property. Their ability to provide these critical services in our communities depends on communications, including access to and sharing of information among other first responders.

Communications challenges can affect response operations and hinder public safety personnel from saving lives and property. While the terrorist attacks of Sept. 11, 2001, brought this issue into focus, these challenges can still occur during emergency response operations. Because of this, Congress passed the Middle Class Tax Relief and Job Creation Act of 2012 (Act) to create a nationwide public safety broadband network (NPSBN).

Under the Act, Congress established the First Responder Network Authority (FirstNet) as an independent authority within the U.S. Department of Commerce to take all actions necessary to ensure the building, deployment and



operation of the NPSBN in all states, five U.S. territories, and the District of Columbia. FirstNet's mission is to create an interoperable nationwide public safety network linking first responders from local jurisdictions with state, tribal and federal public safety

agencies across the nation, including those first responders operating in rural communities.

Modern wireless network for public safety

Like the commercial 4G (fourth

Broadband network speeds response in emergencies

Assume it takes 30 minutes for a rural car crash to be discovered and 30 minutes for paramedics to arrive at the scene and assess the severity of patient injuries. Today, this could delay the call for a helicopter and other decisions about what the patient(s) need. This time lost is critical to the survival of trauma patients.

In contrast, FirstNet intends to enable capabilities like automatic advanced crash notification (AACN) introduced by car manufacturers to be integrated into emergency response scenarios to decrease response times, improve treatment, and better equip responders. In 60 seconds, data coming out of car systems, including the location of the crash, the speed at impact, and the forces acting on the car and people in it, could be transmitted from the car to public safety answering points and communicated via FirstNet to first responder smartphones.

EMS could run AACN data from a wrecked car through an app enabled by FirstNet to determine the percentage likelihood of severe injury. If the chance of serious injury hits a predetermined threshold, the local medevac team would report to the helicopter team and standby. If the chance of serious injury hits a higher threshold, the helicopter team could be dispatched for the scene immediately and, because the car is assumed damaged enough to warrant extrication assistance, extrication equipment could automatically be dispatched. This way, when the ambulance gets to the scene, the helicopter and extrication professionals and equipment are already en route.

When a paramedic exits the ambulance at the scene of a car accident today, it can take 6-10 minutes to approach the car, make sure the scene is safe, do an adequate patient assessment and history, write that information down, and report all that information to the ER and get treatment instructions. In contrast, with the envisioned capabilities of FirstNet, paramedics could begin sending vital signs and monitoring and history data to the entire patient care team, including emergency room doctors and specialists, within 60 seconds of seeing the patient.

generation) Long-Term Evolution (LTE) networks supporting personal smartphones, FirstNet is working to deploy an IP-based wireless public safety network. A key difference, however, is that the NPSBN is being developed specifically to meet the needs of first responders and provide them with mission-critical capabilities, such as priority and pre-emption during large emergencies.

Initially, the network is intended to provide high-speed mission critical data services, in addition to non-mission critical voice capabilities, to augment responders' land mobile radio networks. FirstNet plans to enable users to send and receive data, video, images, voice and text — and benefit from the ability to leverage applications. Just as one can now download apps on personal smartphones, tablets or laptops, once

Increased broadband mobility holds great promise for improving public safety, especially in rural areas. Here, members of an emergency response team demonstrate how a tablet computer, receiving broadband signals, can be used inside an ambulance. Facing page: Officers of the Laurel, Md., Police Department use smartphones and body cameras, enabled by broadband service, to enhance communications. Photo courtesy Laurel Police Department



the FirstNet network is established, FirstNet envisions public safety users being able to download public safety apps for their FirstNet devices.

Mobile technology to benefit rural first responders

Just as smartphones and IP-based networks have changed the way individuals communicate in their personal lives, FirstNet believes the network will change the way public safety entities operate for the better. FirstNet's goal is to enable first responders to take advantage of evolving, mobile communications technology through intelligent devices like smartphones and tablets, as well as wearable technology.

Increased broadband mobility holds great promise for the public safety community. This is particularly true for rural public safety entities. In the case of emergency medical services (EMS), for example, critical facilities, such as trauma centers, could be 90 minutes away from the site of a serious accident.

As such, rural emergency medical technicians (EMT) may be confronted with a patient who appears stable enough to transport in an ambulance, and midway into a 90-minute transfer to the city trauma center, the patient has a more severe reaction than anticipated. Using video transmitted over the NPSBN, creating a "virtual doctor" in the ambulance could enable doctors to look at the patient and his or her vitals, consult with the EMT, and make decisions about implementing a treatment plan to help stabilize the patient until they arrive at the hospital.

Evolving mobile technologies present endless possibilities for how the NPSBN could benefit response operations. FirstNet's goal is to facilitate a faster, more informed, and better coordinated response to incidents across city, county, regional, state, tribal, and federal public safety personnel.

During a crime in process or medical emergencies, for example, the ability to

share real-time images and video of the scene, as well as the locations of responders and locally relevant information, improves communications, situational awareness, and outcomes.

To plan for this network, FirstNet is consulting through the Single Point of Contact (SPOC) in each state and territory to increase its understanding of the communications needs of local jurisdictions and public safety entities. The consultation process is an opportunity for stakeholders to provide FirstNet with feedback and directly inform the build-out of the network in their state or territory.

Rural telecommunications and utility cooperatives can be part of that process by working with key individuals in each state, including the SPOC. To participate in consultation meetings, stakeholders should contact their state SPOC. A list of SPOCs is available at: www.firstnet.gov/sites/default/files/2015_0213_DIR_SPOCs.pdf.

intends to issue an RFP in order to enter into an award(s) for a network provider or providers for equipment and services to provide Band 14 LTE services to public safety entities nationwide. Our goal is to ensure the deployment of a nationwide broadband network that achieves the best value for public safety entities.

FirstNet is initiating an acquisition process that promotes innovation, allows for flexibility and encourages competition. In April, FirstNet released draft RFP documents and is seeking feedback from industry and states. Deadline for draft RFP responses is July 27, 2015, at 12 pm Eastern Time. Additionally, FirstNet continues to create numerous opportunities for feedback from interested parties, including states and territories, local jurisdictions, tribal nations, federal agencies, public safety stakeholders, and market participants.

FirstNet has an Industry Liaison



A camera mounted on a police cruiser uses broadband. Photo courtesy Laurel Police Department

FirstNet's RFP Process

FirstNet's enabling legislation (the Act) requires the organization to conduct a Request for Proposals (RFP) process for the building, deployment, operation, maintenance, and improvement of the network. FirstNet

who serves as a point of contact for market participants who have general questions about doing business with FirstNet. For more information, please contact the Industry Liaison at: FirstNetIndustryLiaison@firstnet.gov.

Newsline

Co-op developments, coast to coast

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

ACE Institute July 12-15 in Mass.

The 2015 ACE (Association of Cooperative Educators) Institute will be held July 12-15 at the University of Massachusetts, Murray D. Lincoln Campus Cent, in Amherst.

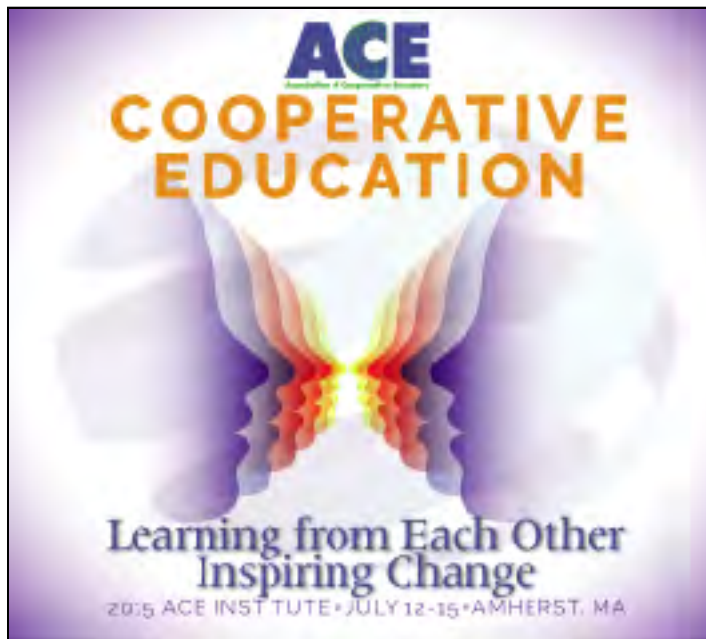
Vern Dosch, CEO of the National Information Solutions Cooperative (NISC), will be the keynote speaker. NISC is a nearly 50-year-old technology business built on the cooperative model. It started by providing software and I.T. services for three rural cooperatives in the late 1960s. It has grown to 1,000-plus employees who serve 14 million end users in 49 states or territories and Canada.

Dosch will discuss the importance of ongoing employee education and awareness about being a cooperative and how a cooperative culture builds a different kind of organization that engages employees, delights customers and sparks better results.

For more information, contact Sarah Pike at pik@ace.coop, or (763) 432-2032.

Stover Ventures launched by Iowa co-op, partner

Ag Ventures Alliance Cooperative (AgVA) of Mason City, Iowa, and Cellulose Sciences International (CSI) of Madison, Wis., have completed a financing agreement resulting in the formation of a new joint venture: Stover



Ventures LLC. Stover Ventures will commercialize CSI's patented biomass treatment process for producing highly digestible feed products and high-value specialty chemicals from agricultural residues. The process offers both economic and practical benefits for corn growers and dairy and beef producers, the partners say.

Corn stover management is an area of growing concern for growers in high-yielding areas of the Corn Belt, they add. Stover Ventures will convert harvested, excess stover into marketable and transportable products, providing growers extra revenue per acre and effectively managing excess residue.

Finding new sources for both feed and energy supplies from shrinking acres will be required to feed and fuel a growing and hungry world, according to the co-op. Stover Ventures will address these needs by providing a new source of highly digestible fiber for

inclusion in dairy or cattle rations. Livestock producers will be able to utilize Stover Ventures' product in their rations to improve income to feed cost ratios.

AgVA has committed \$275,000 of seed funds to launch the venture, with another \$225,000 available if feed trials remain positive. CSI is providing an exclusive license of the patent and technical expertise.

Brad Saeger, an agriculture business developer based in Willmar, Minn., will lead the development effort for the new company. Stover Ventures says it will begin pilot-scale production and dairy feeding trials this year, with commercial-scale facilities scheduled to begin production in 2017.

Investment backs Missouri botanical business

Advantage Capital Agribusiness Partners LP (ACAP) has announced an investment in North American Natural Resources Inc., (d/b/a American Botanicals), a manufacturer and supplier of bulk herbs and botanical products in Eolia, Mo. American Botanicals buys, processes, sells and exports hundreds of roots, herbs, barks and other botanical products, which are purchased directly from U.S. farmers and dealers and used in products ranging from foods to cosmetics and nutritional supplements by the company's more than 400 customers. More than 90 percent of these natural products are collected in the wild.

ACAP is a \$154.5-million fund, licensed as a Rural Business Investment Company (RBIC) by the U.S. Department of Agriculture (USDA) that focuses on businesses involved in the production, processing and supply of agricultural products. It is a partnership between Advantage Capital Partners and nine Farm Credit organizations that have committed \$150 million to the fund.

Stroburg to lead Southern States

Southern States Cooperative (SSC), Richmond, Va., has selected Jeff Stroburg as its new president and CEO. Stroburg, who recently retired as CEO of West Central Cooperative in Iowa, started the new job May 4.



“Jeff’s extensive experience in agricultural cooperatives has prepared him well for this role and provides a solid foundation for the continued growth and success of Southern States,” says SSC Chairman Raleigh Ward of Effingham, S.C. “We look forward to the experience and energy he will bring to the table and the continued success of the cooperative going forward.”

Southern States is a farm supply and service cooperative with more than 200,000 farmer-members. It provides a wide range of farm inputs, including fertilizer, seed, livestock feed, pet food, animal health supplies and petroleum products, as well as other items for the farm and home. The cooperative operates 1,200 retail outlets in 23 states.

Stroburg served as president and CEO of West Central Cooperative for 16 years, where he led the co-op’s growth to more than \$700 million in annual sales and consistent profits. He led the spinoff of the company’s biodiesel business in 2006, forming the Renewable Energy Group. He remains

as REG’s board chair.

Stroburg has also served on a number of boards and associations, including CF Industries, the National Council of Farmer Cooperatives and the Graduate Institute for Cooperative Learning (GICL). A graduate of Iowa State University, Stroburg was raised on a farm in southern Iowa.

“Southern States is one of the nation’s largest farmer cooperatives and its approach to innovative business solutions for members has always impressed me,” Stroburg says.

“Jeff brings experience in many different business segments and understands the nature and business philosophy of cooperatives,” says current President and CEO Tom Scribner, who is retiring.

Tree Top hires new president and CEO

Tree Top Inc. has selected Keith Gomes as the company’s new president and CEO.

Gomes brings more than 30 years of food industry experience in various leadership roles to Tree Top. He assumed the co-op’s leadership role on Jan. 5, succeeding Tom Stokes, who retired after 15 years as CEO.

Tree Top is an agricultural cooperative owned by more than 1,000 apple and pear growers in the Pacific Northwest. It produces premium juices, fruit-based products and ingredients for consumers and most of the world’s leading food and beverage manufacturers. It operates eight processing facilities in Washington, Oregon and California.

Gomes had been with Dairy Farmers of America (DFA) since 2008, where he was chief operating officer of the Global Dairy Products Group, which has nearly \$4 billion in annual sales. Gomes’ experience includes managing the production and worldwide marketing of perishable and non-perishable consumer products and ingredients.

“Keith’s extensive experience in

strategic planning and proven ability to successfully execute and drive business and profitability goals in a large organization contributed greatly to his selection,” says Randy Smith, Tree Top’s board chairman.

MMPA sales top \$1 billion

Michigan Milk Producers Assoc. (MMPA) had \$1 billion in sales in 2014, and marketed 4.44 billion pounds of member milk, up 3.1 percent from 2013, delegates were told during the co-op’s 99th annual meeting in Lansing, Mich.

MMPA President Ken Nobis emphasized the cooperative’s commitment to processing the growing member milk supply, saying, “Our members have invested nearly \$100 million in the last five years in dairy processing that has brought increased capacity to our plants, added value to our members’ milk and created jobs for



Michigan Milk Producers Assoc. (MMPA) has invested nearly \$100 million in new processing equipment — including this butter churn — during the past five years. Photo courtesy MMPA

the community. However, we are not finished with expansion as we move forward into 2015, because we see continued production growth by our members and growing global markets.”

Average milk price paid to the co-op’s 1,200 member-farmers in 2014 was \$23.82 per hundredweight, up \$3.54 from 2013. Member equity increased 3.9 percent, and the co-op paid members \$21.2 million over-market value.

“Prices have, and will continue to, retract from all-time highs that we just experienced, and we must prepare for that,” said General Manager Joe Diglio. “I believe cooperatives can, and will, work through the challenges that we face today to develop a more unified approach in handling market conditions as they evolve.”

Diglio reviewed steps taken last year to address the growth in milk production, citing the installation of the

reverse osmosis (RO) system at the MMPA Constantine plant, being done in partnership with Foremost Farms USA. A butter churn was also added at the Ovid plant. “The RO system is a great example of how our resources can come together and be successful when working collaboratively for the benefit of member-owners,” Diglio said.

Peter Vitaliano, National Milk Producers Federation’s vice president of economic policy and market research, discussed the 2015 price outlook, noting that “2015 isn’t going to be anywhere close to the record milk prices of 2014. But it’s also not going to be anywhere near as disastrous as 2009. Right now, it looks like dairy producer margins will be somewhat better than they averaged during 2011-2013.”

Vitaliano said the outlook will improve when the major dairy-importing countries return to their normal levels of buying dairy products.

NMPF: analysis supports wholesomeness of milk

The results of a U.S. Food and Drug Administration analysis of milk samples from nearly 2,000 dairy farms clearly demonstrate that regulations to keep drug residues out of milk are effective in protecting public health, according to the National Milk Producers Federation (NMPF). In the analysis, made public in March by FDA’s Center for Veterinary Medicine, analyzed the milk samples for 31 different drugs. More than 99 percent of samples were found to be free of drug residues.

“The report confirms that America’s dairy farmers are delivering on their commitment to provide safe and wholesome milk to consumers,” says NMPF President and CEO Jim Mulhern. “The findings are a positive affirmation of our milk safety, although we need continued education among farmers, veterinarians and



pharmaceutical companies, and outreach on how to prevent future trace levels of residues.”

In the analysis, FDA collected milk samples from 1,912 farms. About half the farms had been cited earlier for drug residue violations in market-bound meat. The remaining farms were randomly selected. FDA was checking to see if dairy farms with drug residue violations in meat were producing milk that also contained residues.

Co-op Network CEO Oemichen to retire

Cooperative Network President and CEO Bill Oemichen has announced his retirement,



effective Oct. 16, concluding 14 years with the association. Oemichen has served as president and CEO since 2002. Under his leadership,

Cooperative Network has grown to become an influential advocate on legislative and regulatory issues for cooperatives, on both the national and state level.

It was under Oemichen’s leadership that the former Wisconsin Federation of Cooperatives and Minnesota Association of Cooperatives united to form Cooperative Network in 2007, becoming the largest all-cooperative trade association in the nation. It represents more than 400 cooperative business members in Minnesota and Wisconsin.

Other accomplishments during his leadership include:

- Drafting, and leading, legislative efforts to enact the Wisconsin Dairy Investment Tax Credit in 2004, which helped bring about more than \$2 billion in reinvestment into a struggling Wisconsin dairy industry.
- Creating the Farmers’ Health Cooperative of Wisconsin in 2007 to

provide the state’s agricultural producers and agribusinesses affordable and quality health insurance and to stimulate health care marketplace competition.

- Gaining global recognition as an information source on corporate and cooperative governance, including invitations to speak before the parliaments of several nations on cooperative governance issues in 2014 and 2015.

- Enacting new cooperative laws in Minnesota (2004) and Wisconsin (2005) that have enhanced local economic development by allowing community members to invest money into area cooperative businesses.

- Advocating before the U.S. Congress for health care cooperatives to be included in the Affordable Care Act. Cooperative Network then served in a leading advisory role to the U.S. Department of Health and Human Services in determining how \$6 billion in federal funding would be used to support the development of 24 new health care cooperatives, which today provide health insurance to more than 1 million Americans.

“Bill has successfully led Cooperative Network through much change during his tenure, shaping it into the strong association it is today,” says Cooperative Network Board Chair Curt Eischens, a Minnesota farmer who is assistant secretary-treasurer on the CHS Inc. board. “Cooperative Network is well positioned to continue to serve cooperatives in Minnesota and Wisconsin, and we look forward to bringing on new leadership to help us grow our future together.”

Oemichen, an attorney, previously served as head of the Wisconsin Division of Trade and Consumer Protection. Prior to this, Oemichen was deputy commissioner of the Minnesota Department of Agriculture and was a staff member in both houses of the Minnesota Legislature as well as the U.S. House of Representatives.

“I have greatly enjoyed my work

representing Wisconsin and Minnesota cooperatives and advancing member-owned cooperatives as the preferred form of ownership,” Oemichen says. “I thank the Cooperative Network board for giving me the opportunity to play a key leadership role in demonstrating that consumers, workers, and our state and local communities are much better served by citizens participating in and supporting member-owned and -led cooperatives.”

Brinkley new PCCA president/CEO

Plains Cotton Cooperative Association (PCCA) has named Kevin Brinkley as president and chief executive officer of the Lubbock-based, farmer-owned cooperative, effective July 1. The announcement follows a nationwide search to replace Wally Darneille, who retired Feb. 28.

“We are very pleased to announce the selection of Kevin to lead PCCA’s



cotton marketing, warehousing and software services for our members and customers,” says PCCA Chairman Eddie Smith. “He is well known and respected in the cotton industry

and will complement PCCA’s management team.”

Originally from Burnet, Texas, Brinkley attended Texas Tech University where he graduated with bachelor’s and master’s degrees in agricultural economics. Upon graduation, he joined the staff of the National Cotton Council as field representative for the Texas High and Rolling Plains. In 1990, he was promoted to an economist and conducted farm policy analysis and marketing support for Cotton Council International’s efforts to promote U.S. cotton.

Brinkley joined the staff of The

Pope Francis addresses co-op group

Pope Francis recently talked to more than 7,000 members of the Confederation of Italian Cooperatives in Rome, referring to cooperatives as “key actors in promoting the economy of honesty. The Church has always acknowledged, appreciated and encouraged the cooperative experience.”



Pope Francis accepts a gift of co-op food products during a meeting with members of the Confederation of Italian Cooperatives (CIC) in Rome.

Cooperatives should “continue to be the motor for lifting up and developing the weakest part of our local communities and of civil society,” Pope Francis said. This involves “giving first place to the foundation of new cooperative enterprises, along with the further development of those already in existence,

so as to create, above all, new work opportunities that currently do not exist.” He also mentioned a role for worker-owned co-ops that could take over businesses when the owners retire or die.

“Unite with determination the right means for carrying out good works. Collaborate more with cooperative banks and businesses, organize resources to allow families to live with dignity and serenity, and pay fair salaries to your workers... Money, placed at the service of life, can be managed in the right way by the cooperative.” He added: In “an authentic and true cooperative, capital does not rule over people, but people over capital.”

Seam as marketing manager when the company was created in 2000 to offer the world’s first completely online, neutral exchanges for cotton trading. In 2003, he was promoted to vice president of marketing and business development, and The Seam added other commodities such as grains, peanuts and dairy to its trading platform. The company also began offering food trading platforms for major manufacturers and reverse auction procurement systems for USDA.

In 2011, he was promoted to senior vice president to oversee all daily operations of The Seam and was named its chairman and chief executive officer in January 2015.

“PCCA is a stalwart of the U.S. cotton industry,” Brinkley says. “My vision is to serve our members by continuing to provide the quality of

service and value that have made the cooperative the supplier of choice for customers around the world.”

Founded in 1953, PCCA today is owned by about 15,000 cotton producers in Texas, Oklahoma, Kansas and New Mexico. It is one of the largest originators of U.S. cotton to textile mills worldwide.

Farmer Co-op Conf. Nov. 5-6

The 18th annual Farmer Cooperatives Conference returns to Minneapolis, Minn., Nov. 5-6. Presented by the University of Wisconsin (UW) Center for Cooperatives, the conference provides a forum for cooperative directors, managers and those doing business with agricultural cooperatives to explore current issues that will shape the future of farmer-owned cooperatives.

This year’s program will look at

supply chain and transportation issues, economic trends and human resources and strategies for developing a co-op culture. “This event is an exciting opportunity to hear cooperative business leaders assess the cooperative business environment,” says UW’s Anne Reynolds. For more information, contact her at: anne.reynolds@wisc.edu.

Co-op Innovation Award goes to worker co-op orgs.

Capital Impact Partners is awarding \$40,000 to the Democracy at Work Institute and United States Federation of Worker Cooperatives through its first Co-op Innovation Award. These organizations were chosen based on their track record in providing high-quality technical assistance to start-up and existing co-ops, as well as their leadership in scaling the cooperative model with a focus on low-income communities.

“Thirty years ago, Capital Impact was born out of the need to support consumer and small business cooperatives working in low-income communities,” says Terry Simonette, president and CEO of Capital Impact Partners. “We are thrilled to continue that tradition with the debut of our Co-op Innovation Award and support for these two worthy organizations which are demonstrating their leadership in building strong, vibrant communities.”

The Democracy at Work Institute (DAWI) received \$20,000 for its “Conversion Collaboration.” This coordinated, national effort is designed to help scale worker co-op conversions or traditional small businesses which would like to transition to worker-owned co-ops. Through this effort, DAWI will create a supportive ecosystem of business organizations, technical assistance providers and lenders with a focus on low-wage industries.

“More than 40 percent of worker cooperatives in existence today were formed by converting an existing business to worker ownership, and

several recent large and high-profile conversions show that conversion activity is only growing,” Melissa Hoover, DAWI executive director. “With this funding, Capital Impact Partners has its finger on the pulse, and the pulse is strong!”

The U.S. Federation of Worker Cooperatives (USFWC), a national grassroots membership organization for worker co-ops, was awarded \$20,000 for its “Grants for Growth” fund. This revolving grant fund will provide small technical assistance grants to existing co-ops who want to grow their businesses. These grants will increase the number of loan-ready worker co-ops and their capacity to create new jobs.

“The revolving fund we’ve developed will cover the up-front costs of business technical assistance, addressing a known need for three important Federation stakeholders — established worker cooperative businesses, knowledgeable cooperative developers and co-op-friendly financial institutions — in a coordinated way that has the ability to unlock significant growth potential,” says Amy Johnson, co-executive director for the USFWC.

USDA’s Ling honored by UConn

Charles Ling, who retired from USDA Cooperative Programs in January 2015, recently received the 2015 Distinguished Alumni Award from the College of Agriculture, Health and Natural Resources (CAHNR) at the University of Connecticut (UConn). The award recognizes Ling for his 40-year career conducting research and technical assistance at USDA, and the many benefits his work yielded for farmers and their dairy cooperatives.

Ling received his master’s degree (1970) and doctorate degree (1973) from UConn. The honor was bestowed April 22 during an awards ceremony at the UConn campus in Storrs, Ct.

Among the many publications he produced at USDA is “The Nature of the Cooperative,” a collection of articles

he wrote that examine the economic theory underlying agricultural cooperatives. In this report, he systematically reviewed economic literature and traced the evolution of cooperative theory, including a re-evaluation of Edwin G. Nourse’s seminal 1922 paper: “The Economic Theory of Cooperation.” (To request a copy, e-mail: coopinfo@wdc.usda.gov.)

Spearman to chair FCA; Tonsager, Hall join board

Kenneth A. Spearman has been selected by President Barack Obama as chairman and CEO of the Farm Credit Administration (FCA). He assumed the new post on March 13. Spearman has served as a member of the FCA board and, concurrently, as chairman of the Farm Credit System Insurance Corporation. His term on the board will expire in May 2016. He succeeds Jill Long Thompson, who has served as FCA chair and CEO since November 2012.



As FCA chairman, Spearman will be responsible for policymaking, adopting regulations and overseeing the examination and regulation of the institutions constituting the Farm Credit System (FCS), including the Federal Agricultural Mortgage Corporation. The banks and direct-lending associations of the FCS have \$217.1 billion in gross loans outstanding to U.S. farmers, ranchers and their cooperatives; they have \$282.8 billion in total assets.

Spearman has many years of experience in finance, agriculture and ag cooperatives. He spent 28 years in the citrus industry. From 1980 to 1991, he was controller of Citrus Central, a \$100-million cooperative in Orlando, Fla. He later served as director of internal audit for Florida’s

Natural Growers.

Dallas Tonsager of South Dakota recently joined the FCA board. He will serve the remainder of the six-year term previously held by Jill Long Thompson, which expires in May 2020. Both Tonsager and Long Thompson are former under secretaries of USDA Rural Development.

While at USDA, Tonsager was a member of the Commodity Credit Corporation board. He previously served on the FCA board from 2004 to 2009 and was an ex-officio member of the Farm Credit System Insurance Corporation board.

Jeffery S. Hall has also joined the FCA board, where he will serve the remainder of the six-year term previously held by Leland A. Strom, which expires in October 2018. He also will serve as a member of the Farm Credit System Insurance Corporation board.

Hall was president of The Capstone Group, a firm he co-founded in 2009. He was the state executive director in Kentucky for USDA’s Farm Service Agency from 2001 to 2009. From 1994 to 2001, he was assistant to the dean at the University of Kentucky College of Agriculture.

Whatcom Farmers Co-op merges with CHS Inc.

Producer-members of Whatcom Farmers Cooperative (WFC), a full-service ag cooperative based in Lynden, Wash., have approved a merger with CHS Inc. The proposal will become effective in July, pending appropriate due diligence by both organizations and approval by the CHS board.

“A lot of time and effort by the board of directors went into the decision to bring this proposal to our members,” says WFC Chairman Jeff Bedlington. “WFC will remain a locally based company, staying true to its roots. We are excited for the opportunities that CHS and WFC can provide for our employees and customers.”

“CHS continually looks for strategic

opportunities that strengthen our ability to help our farmer-owners grow their businesses,” says Lynden Johnson, executive vice president of CHS. Don Eucker will continue to lead the group as general manager.

Founded in 1941 as Whatcom Grange, today WFC has locations in the communities of Lynden, Bellingham, Fairhaven, Ferndale, Blaine and Nooksack, which serve customers throughout Whatcom County.

Andersen to leave Nebraska Co-op Council

Robert C. Andersen, president of the Nebraska Cooperative Council (NCC), has announced he will retire March 1, 2016, ending a distinguished NCC career of 42 years. He leaves behind a legacy of financial strength, and an effective association known nationally for excellence. The NCC board has begun the process of selecting a new president.

“Over his four decades of service, Bob has worked hard to bring a unified voice regarding cooperative issues to the legislature,” says David Briggs, NCC chair and general manager of WESTCO in Alliance, Neb. “Bob has built strong relationships with institutions and agencies all across the nation.”

“Under Bob’s direction, the Council has provided exceptional educational opportunities for both the directors and the employees of co-ops in Nebraska and surrounding states,” adds Bruce Favinger, NCC board secretary and chair of Cooperative Producers Inc. in Hastings, Neb.

“I have been very fortunate to have worked with some of the most honorable and dedicated farmer/rancher directors, cooperative managers and cooperative stakeholders in Nebraska and the Midwest,” Andersen says. “It has been my privilege to work closely with these leaders who are committed to fulfilling the needs of their farmer/rancher members, coupled with

creating a positive economic impact upon their community and our state.”

NCC, founded in 1945, represents Nebraska co-ops and the more than 56,200 farmers and ranchers who own them. These co-ops serve more than 390 communities and employ more than 5,575 employees.

Paige wins Spirit of Cooperation Award

Ralph Paige, former executive director of the Federation of Southern Cooperatives/Land Assistance Fund, is the 2015 recipient of the *Stan Dreyer Spirit of Cooperation Award*. The award is bestowed by National Cooperative Bank (NCB), a leading financial services company serving cooperatives nationwide.



Ralph Paige (left) receives the Stan Dreyer Spirit of Cooperation Award from Charles Snyder, president and CEO of National Cooperative Bank (NCB).

The award, named for a former NCB leader, was presented at NCB’s annual meeting. It is bestowed each year on someone who “portrays the spirit of the cooperative principals in his or her personal and professional life.”

Paige recently retired from the Federation after 45 years, spending the past 30 as its executive director. He was also presented with a letter from President Obama, thanking him for his contributions while leading the Federation, and for serving as a leader

for economic empowerment and social justice for southern farmers and rural communities.

Under Paige’s leadership, the organization developed more than 200 units of low-income housing, 75 cooperatives, 18 community credit unions and a training program for rural leaders. He led the Federation efforts to support development and passage of USDA’s Small Farmers Program, which provides the coordination of outreach, technical assistance and education efforts to socially disadvantaged and veteran farmers, ranchers and forest landowners, helping to improve their participation in the full range of USDA programs.

The award is named for a former NCB executive director who was instrumental in the passage of the Congressional Bank Act of 1978, which resulted in the formation of NCB. Dreyer’s dedication to fostering the growth and success of cooperatives, nationally and internationally, has earned him widespread recognition and an enduring legacy.

Iowa governor tours Quad County ethanol plant

Quad County Corn Processors (QCCP) and Syngenta in April hosted Iowa Governor Terry Branstad and Lt. Gov. Kim Reynolds on a tour of the state’s first commercial cellulosic ethanol plant, in Galva, Iowa. QCCP recently passed the 1-million-gallon milestone for cellulosic ethanol production, using the Cellerate process technology.

Cellerate is a collaboration between Syngenta and Cellulosic Ethanol Technologies LLC, a wholly owned subsidiary of QCCP. Cellerate process technology is designed to increase an ethanol plant’s production by allowing the corn kernel fiber to be converted into cellulosic ethanol. Co-op leaders say Cellerate will enable the biofuels industry “to create 2 billion gallons of additional cellulosic ethanol — all from corn already being processed. ■

Commentary

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helps boost profits. My own family helped pioneer drip irrigation in Arizona, and we are producing more with less water than ever before.

Related to farming is the use of water for commercial and industrial processes. Based on what I read, California has done a good job of conserving water in these areas, likely for the same reasons we do: water is expensive and we're all striving for maximum efficiency.

Finally, water is used to support our modern lifestyles, watering lawns and shrubs and trees, hosing down sidewalks, filling pools, making soccer fields and golf courses green. Somehow we must find ways to balance these competing choices for what we do with our most precious, limited resource — water.

That is where I believe our nation's co-ops can, and do, play a major role in educating and informing people about our water supplies, the demands made upon them, the systems that deliver water to our farms and our homes, the changes agriculture has made to be more efficient and to push back against

misinformation that portrays farmers as the bad guys in a drought.

People have a natural inclination to mass into groups of common interests, especially in times of crisis. Farmers and their co-ops must stand together to tell their story of how we use water. Otherwise, choices could be made that are not in anybody's best interests.

What it really boils down to is this: farmers only use the water needed to feed and clothe the people in our nation and the world. That's the message we need to convey and our co-ops are doing yeoman's work in delivering the message. ■

Co-op or LLC?

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set of services provided, nor a stake in any particular community. The incentive for LLCs with patron-members to transition to non-patron ownership is evident. But whether, or how frequent, such conversions occur, only time and historical research will tell.

The longevity record for cooperatives is noteworthy. *Rural Cooperatives* magazine's May/June 2014 issue reported on the expanding list of "century cooperatives," which then stood at 134, and is projected to double in the next six years. Cooperatives reaching 100 years represent a much higher percentage of the total pool of such businesses, compared to publically listed companies.

Cooperatives provide an exit plan by returning all equity to retiring members. While an exit strategy is an important part of planning, it is not an all-consuming concern for those who want to build a democratically owned business that can be passed on to other users of its services.

More questions to ask

An LLC might be the right choice

When members want to build a sustainable business — with democratic control by those who use its services — a cooperative will usually achieve that purpose better than an LLC.

for some businesses, but more questions need to be asked beyond that of what is easiest to establish and what offers the greatest single-tax, pass-through advantage. One must ask: Do members plan on taking all earnings rather than retaining them in the business to support its growth? In financing a business, the lowest cost of capital is from earnings generated by operations. Only cooperatives can both create equity from earnings and make a later distribution to members while incurring a single, pass-through tax.

Another question for members to ask, or to probe, is the value they place on building an entity that will sustain as a democratically controlled and user-benefited business. Such objectives are worth considering when choosing an organizational form. It may turn out that an LLC can also accomplish such objectives.

Professional advisors naturally focus on what they perceive to be in the "client's best interest" when advising on

the choice of a form of business organization. But decisions in one's best interest ought to involve a thoughtful discussion. There is more to be weighed than ease of access to investors and exit strategies. There are community-impact aspects of building a business, as well as generating profits for members. Cooperatives serve such objectives better than any other form of business organization. ■

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Building Co-op Infrastructure

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advertised while on the William Mitchell campus and wanted to learn more.

“Mostly, I was shocked by how prominent and *big* cooperatives are,” Ayers Looby says. “I didn’t realize that the business model, which seems so grounded and valued, had the capacity to expand to such great numbers and breadth. It also made me feel excited that I wouldn’t have to look too far when I graduate...to find cooperatives that I could both work for and support with my business!”

The Co-ops 101 session was the first of its kind to be offered at the law school, which had worked with Cooperative Network and the Minnesota Cooperative Education Foundation several years earlier to survey law schools in Minnesota and Wisconsin to unearth what students

were being taught regarding cooperatives and where more information was needed. The study concluded little was being taught on the cooperative form of business.

Collaboration with universities

Asked for her advice for cooperatives seeking to provide information about who they are and what they have to offer on university campuses, Dube says, “For us...it’s not so much what do co-ops have to offer us as it is what do co-ops *need from us*. I think if law students understood that there is a demand for lawyers to represent cooperatives, there would be more incentives for our school to include cooperative law in the curriculum in some way — whether as a day or multi-day conference or as a for-credit course.”

Oemichen agrees that communication is key. “There is a very important role to play for our future lawyers in incorporating, advising and

representing cooperative businesses,” he says. “As the only type of corporation with a set of seven principles, we present an attractive business and governance model for many law students. Our challenge is to help certain law, business and accounting students understand that we are a viable business model they should embrace during their professional career.”

He concluded the class by emphasizing key “cooperative differences,” saying:

- Co-ops are created to meet a need not being met by the for-profit community;
- Members who purchase the cooperative’s products and services “own” and lead the cooperative;
- Co-ops are incentivized to focus on member needs rather than on the profit motives of investors;
- Member education is a core cooperative principle;
- Giving back to the community is also a core principle.

REAP Helps Paint Producer

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million in REAP grants and loans for more than 2,900 renewable energy systems.

Some key facts about this effort:

- When fully operational, it is estimated that these renewable energy systems will generate more than 6 billion kilowatt hours annually — enough to power more than 5.5 million homes for a year.
- The new Census of Agriculture shows the number of farms using renewable energy has doubled in the past five years.

Program improved

On Dec. 29, 2014, USDA published a final rule outlining key improvements

to the REAP program and seeking applications for more than \$280 million in available REAP guaranteed loans and grants to agricultural producers and rural small businesses for installing renewable energy systems and making energy efficiency improvements.

Renewable energy systems are: wind, solar, renewable biomass, anaerobic digesters, geothermal, hydroelectric and hydrogen. Energy-efficiency improvements include, but are not limited to equipment, lighting, heating, cooling, ventilation, fans, automated controls, windows and insulation.

Some positive changes from the newly published rule include:

- A simpler, streamlined application process that also designates funds for smaller projects and provides for assistance with applications;
- An expanded application window: loan and grant applications are being accepted and reviewed year-round, and

loan applications compete on a monthly cycle;

- Provides grants up to \$500,000 and loan guarantees up to \$25 million for renewable energy systems and energy-efficiency improvements for rural small businesses and agricultural producers;
- Authorizes \$50 million annually; authorizations are no longer contingent upon future Farm Bills;
- Adds resource conservation and development councils as eligible entities to apply for energy audit and renewable energy development assistance grants.

For fiscal 2015, USDA has over \$280 million available in REAP funding, with over \$200 million available for guaranteed loan and \$80 million available for grants.

For more information on the REAP program, visit: www.rd.usda.gov and type “REAP” in the search box, or e-mail: Venus.WelchWhite@wdc.usda.gov. ■

Tune up your CO-OP



Co-ops 101: An Introduction to Cooperatives (CIR 55)

Probably the most-read co-op primer in the nation, this report provides a bird's-eye view of the cooperative way of organizing and operating a business. Now in an exciting new full-color format.



Co-op Essentials (CIR 11)

A companion volume to Co-ops 101, this is an educational guide for teaching basic information about cooperatives. It explains what cooperatives are—their business, principle, and structural characteristics, and the responsibilities and roles of cooperative members, directors, managers, and employees.



How to Start a Cooperative (CIR 7)

A long-time favorite refreshed up with updated editorial content and a new design. This guide outlines the process of organizing a cooperative business, providing information on the potential steps involved and some important aspects of cooperative development.



The Role of Food Hubs in Local Food Marketing (SR-73)

Consumers are willing to pay a premium for locally-produced foods. But producers are often handicapped by the lack of locally-based distribution systems. The food hub is one collaborative distribution system for local and regional food that shows great promise. This report presents an overview of the myriad issues facing food hubs across the United States.



Cooperative Statistics 2013 (SR 75)

A survey of 2,186 U.S. farmer, rancher, and fishery cooperatives ending their business year during calendar year 2013 showed a record business volume and net income before taxes. Get all the facts with this vital window on the agricultural cooperative economy.



Performance of the Top 15 Dairy Co-ops, 1992-2012 (RR 232)

The equity retained by dairy cooperatives represents a substantial sum of the members' money and competes with the capital needed for financing their farm operations. That's why good financial performance is vital to the well-being of a dairy co-op's members. Learn how well the largest U.S. dairy cooperatives are doing.

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New



Expanded

The Nature of the Cooperative (CIR 65)

These collected articles by USDA Rural Development agricultural economist Charles Ling were originally printed in *Rural Cooperatives* magazine to examine the nature of cooperatives and their place in our free-market economy. Now expanded to 10 articles from the original 5.



Nominating, Electing and Compensating Cooperative Directors (CIR 63)

This report examines the various methods co-ops use for nominating board candidates, voting policies of agricultural co-ops and compensation practices for co-op directors. It also includes a look at the types of leadership skills needed by co-op board members. This collection of articles originally appeared in USDA's *Rural Cooperatives* magazine.



Running a Food Hub: Lessons Learned From the Field, SR 77

This report is part of multi-volume, technical report series: Running a Food Hub. This first volume compiles a number of best business practices for starting or expanding a food hub enterprise. It includes operational profiles of the food hubs profiled in the report.



Member Satisfaction With Their Cooperatives (RR 229) (Web Only)

Dairy cooperatives have adopted a wide range of organizational structures. In some cases, this resulted in fairly bureaucratic, complex business organizations that require high levels of management expertise. This study looks at how such organization affects the satisfaction members have with their cooperatives.



Comparing Cooperative Principles of the U.S. Department of Agriculture and the International Cooperative Alliance (RR 231) (Web Only)

The cooperative principles of the U.S. Department of Agriculture and those of the International Cooperative Alliance (ICA) have evolved in slightly different directions since the Rochdale statement of 1860. This report compares the two sets of cooperative principles regarding how they distinguish that form of organization from other forms of business.



Cooperative Employee Compensation (RR-228)

Employee compensation is the largest expense item for most cooperatives, averaging 4 percent of sales. This publication provides a comprehensive survey of compensation rates and benefits of U.S. agricultural co-ops.

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