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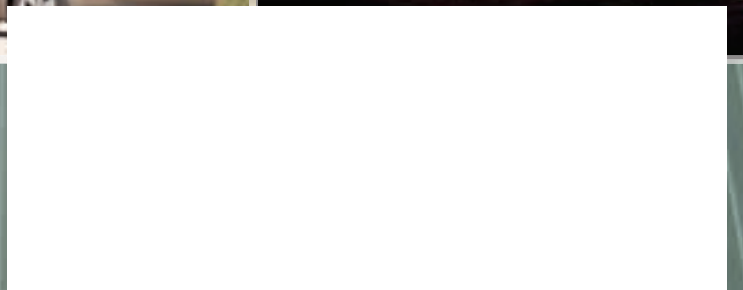
Illinois Country Living

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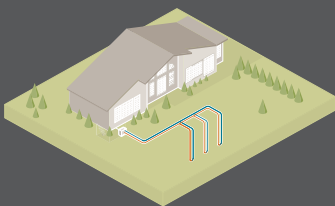
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A new generation of coal technology

The Prairie State Energy Campus will be the cleanest in the nation

As an Illinoisan, our state's most abundant source of energy may be right under your feet. With the United States of America having greater than 25 percent of the world's coal reserves, the state of Illinois' underground geography is 65 percent coal, representing 38 million metric tons. The energy from Illinois' coal supply is more than the fuel reserves in Saudi Arabia and Kuwait combined. It produces nearly half of our state's electricity supply.

New technology and emission controls are providing options to use coal in the cleanest possible ways. Since 1970, emissions from coal-fueled power plants have been reduced by more than 80 percent while electrical output has almost tripled. A part of the new generation of coal, the newest coal-fueled power plant in the nation, Prairie State Energy Campus, is currently under construction in southern Illinois, in Washington County. Unit 1 went online in June and Unit 2 is expected to begin operations in late 2012.

Prairie State Energy Campus is a mine mouth energy complex with a 6.5 million ton per year coal mine located directly next to a super-critical, 1,600 MW power plant. Its owners and investors are eight consumer-owned municipal and electric cooperative utilities and Peabody Energy. The Prairie State owners will use its power to provide electricity for more than 2.5 million families in Missouri, Illinois, Indiana, Kentucky, Ohio, Michigan, Virginia and West Virginia.

With more than \$1 billion in emission controls, Prairie State Energy Campus will be the cleanest coal-fueled power plant in the nation. Without factoring in its state-of-the-art emission controls, its super-critical

steam/electrical generating process is more efficient allowing it to emit 15 percent less emissions than a typical coal plant. Considering Prairie State's emissions controls, it will remove 98 percent of SO₂, 90 percent of NO_x and more than 99 percent of PM (particulate matter), the most commonly tracked emissions.

Because of the development of emission control equipment, Illinois coal is having a comeback. Its high-sulfur content and the high cost of pollution control equipment kept many utilities from using Illinois coal. Low-sulfur Wyoming coal dominated the market. Southern Illinois Power Cooperative's sulfur scrubbing equipment and Prairie State's latest environmental equipment are helping make Illinois coal and mining jobs viable.

Developing countries like Brazil, India and China, which are currently building their energy infrastructure are also becoming fertile markets for Illinois coal. Recently, another energy company, Foresight Energy, announced that it was purchasing a rail terminal west of New Orleans, in order to firm up coal sales into international markets. They doubled the capacity of the port/rail facility to handle Illinois coal exports including the ability to double it again if markets continue to expand as predicted.

Despite the issues faced, these are examples of how Illinois coal is in the midst of revitalization. According to the Illinois Coal Association, at its height, more than 10,000 coal miners called Illinois home. Following the Clean Air Act of the early 90s, many of the Illinois coal mines closed and employment dropped. Today, 4,000 coal miners are working in Illinois coal mines and their numbers are steadily climbing. Recent forecasts

indicate that coal production in the Illinois basin could increase by 40-100 percent over the next decade.

Since breaking ground in 2007, more than 4,000 construction personnel have been on site building Prairie State Energy Campus. Over 150 local suppliers and vendors have been used to provide products and services to the campus. When construction is finished in late 2012, Prairie State will employ over 500 people on a permanent, full time basis and will be one of the largest contributors to Washington County's tax base.

A study completed by the University of Illinois predicts that Prairie State will stimulate an additional 860 jobs and an extra \$80 million of earnings into the Illinois economy. It will contribute more than \$785 million annually in economic activity, totaling \$23.6 billion over 30 years.

The Prairie State Energy campus will serve as an example of how our region's current and future energy needs can be met in a safe, reliable, environmentally-responsible, and cost effective manner, and also serve to strengthen and grow the region's economic base.

Peter DeQuattro has served as President and CEO of Prairie State Energy Campus since May 2008. He has 22 years of experience in designing, constructing, operating and maintaining primarily coal-fired power plants at various companies.





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Sen. Gary Forby and Rep. Unes awarded Co-ops' Public Service Award

At the Association of Illinois Electric Cooperatives' Annual Meeting held on August 2 in Springfield, State Senator Gary Forby, D-59th District, received the 2012 Illinois Electric Cooperatives' Public Service Award.

Although he was unable to attend it was announced that State Representative Michael Unes, R-91st District, received the second Public Service Award for this year.

The award was made in recognition of Sen. Forby's outstanding support of the rural electrification program in Illinois. He is also a strong supporter of agriculture and other issues important to

rural Illinois. Rep. Unes was honored because of his sponsorship of copper theft legislation. Copper theft has been increasing and rural electric co-op lines often are the target of copper thieves. ■



Sen. Forby, a former farmer and businessman and a resident of Benton, received one of this year's Illinois Electric Cooperatives' Public Service Awards. Sen. Forby said, "I have the bottom 13 counties of Illinois and down there our biggest issue is jobs. That is mainly what I work on. The co-ops have done an excellent job in my district and they are fantastic to work with. The biggest thing a state legislator can do is listen and when they call, I listen."

Coal site transformed into ATV and dirt bike paradise

Coal mining was once a thriving business in western Illinois' Henry County. At its peak, up to 100 railroad cars of coal left Midland Coal Company's Atkinson processing plant daily. But in 1964 the last coal mine shut down ending coal mining in the county.

Today, the landscape left in mining's wake has been restored creating some of the best ATV and dirt bike riding ground in the Midwest. Atkinson Motorsports Park (Gob Hill) has more than 100 acres of timber full of trails, mud bogs and climbs. Ride to the top of the Gob amid 116 acres with lakes, hills, and valleys and enjoy the most open and unrestricted riding in Illinois.

There is a stadium-style supercross track, a motocross track and a kids-only riding area. For more conservative riders, the perimeter road is more than four miles long with beautiful vistas.



Only four-wheel ATV's and dirt bikes are allowed and all riders must wear Illinois Department of Transportation approved helmets, goggles, gloves, long sleeve shirts, pants and over-the-ankle boots, and all machines must have a valid Department of

Natural Resources sticker affixed.

Gob Hill has a campground with 75 tent sites and 28 motor home sites with electric, water and some with sewer. For more info, go to www.gobhill.com, phone 309-936-1200 or 309-936-7878 or email vicky@shabonnacreekrv.com ■



Lt. Gov. Shelia Simon addresses rural Internet access

Speaking to the leaders of the state's electric cooperatives at the Association of Illinois Electric Cooperatives' Annual Meeting, Lt. Gov. Shelia Simon spoke about school consolidation and improving rural Internet access.

Simon said she is proud to be a member of Egyptian Electric Cooperative and proud of her nephew who is a lineman for the co-op. "I appreciate what you do," said Simon. "It is in line with the issues my staff and I work on. One area is rural Internet connectivity. For those of us who live at the end of the road, Internet connectivity is a lot like rural electrification. I think we can learn a lot from the cooperative experience. You can be a part of developing how that gets to the last mile of the road."

Simon thanked the co-ops for being a part of developing



young leaders with their Youth Day in Springfield program. She also talked about school consolidation, a controversial subject impacting rural students. Simon, who chairs a commission on school consolidation, said a report from the commission recommends some ways for schools to maintain local control and still reap some of the benefits of consolidation efficiencies.

"The report recommends the best of voluntary and virtual consolidation," said Simon. "Some may want to

work with another school on buying textbooks, or buying health insurance for their employees, or maybe sharing a superintendent. If you are next door to a school that has a great biology teacher, or an advanced math teacher, let's find a way to share those resources." ■

Farmers in 98 of 102 Illinois counties eligible for Federal drought relief

In August Governor Pat Quinn announced that the U.S. Department of Agriculture had declared 98 of 102 Illinois counties as disaster areas. Approval means federal disaster assistance is now available to help farmers in these counties.

A combination of extremely hot and dry weather has stunted crop development across the state, especially in corn, which received inadequate moisture to pollinate. According to the Illinois State Water Survey, precipitation throughout Illinois averaged just 12.6 inches from January to June, making the first half of 2012 the sixth-driest on record.

"The yield losses being projected could cause farmers cash flow problems," Illinois Department of Agriculture Acting Director Bob Flider said. "The low-interest, emergency loans this declaration triggers would help them recover. They can be used to pay not only production expenses, but also family living expenses."

Farmers who believe they may be eligible for the assistance should contact their county Farm Service Agency offices. Loan applications are considered on a case-by-case basis, taking into account the extent of losses, security available and applicant's repayment ability. For more information on drought assistance, please visit www.Drought.Illinois.gov. ■





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Smart Grid

the next greatest thing

By *Ed VanHoose and John Lowrey*

At the beginning of the rural electrification movement during the Great Depression, a Tennessee farmer stood up in church one Sunday and said, “The greatest thing on earth is to have the love of God in your heart, and the next greatest thing is to have electricity in your house.” That was 75 years ago and he was probably talking about having just a few light bulbs, a radio and maybe a refrigerator. My how things have changed.

The electric grid is the largest interconnected machine on earth – a highway moving electricity from power plants to your home. And while our use of electricity has exploded and changed drastically during the last 75 years, the grid is in need of modernization and its next greatest thing. Some are calling that the smart grid.

But what does that really mean and how will the so-called smart grid affect you and your home? There are three key words that define the improvements that are being made

using smart grid technology: affordability, efficiency and reliability. It will provide you with the tools to manage electric use in new ways. It will add self-healing technology to the grid, improving reliability. It will improve efficiency and allow the addition of renewable energy sources, distributed generation and energy storage. It will efficiently integrate new consumer technology such as electric cars and smart appliances.

This new high-tech national power grid isn't being built from scratch to replace the old one. The existing power generation and distribution infrastructure will continue to be used as long as possible. Instead of replacing the entire infrastructure, power suppliers, like your local electric cooperative, are integrating high-tech computer and communication technology into the existing power grid.

Illinois' electric cooperatives are out in front and already adding existing smart grid technology, and

researching and beta testing new technology. For example, 90 percent of Illinois' electric cooperatives have installed automated metering infrastructure (AMI) or what some simply call smart meters. Several co-ops are part of a Department of Energy funded smart grid research project. A number of co-ops are testing the integration of renewable energy projects, and all of Illinois' electric cooperatives have net metering and renewable energy interconnection policies to allow the safe integration of new distributed generation.

The University of Illinois at Urbana-Champaign is also playing a pivotal role in smart grid development. Alfonso Valdes, Managing Director, Smart Grid Technologies, says, “The power grid has some daunting characteristics that complicate that mission. First and foremost, its stability is absolutely critical. The goal is to keep the lights on, so it would be unacceptable to introduce

technologies until there's reason to have tremendous confidence that they'll work reliably. Also, the grid faces the challenges of being a vast, interconnected patchwork of wildly diverse equipment that was not necessarily designed to work well together."

Indeed, much of the current infrastructure dates back to a time when power generation and distribution systems were nowhere near as interconnected as they are now. Manufacturers didn't anticipate that their competing systems would one day need to be compatible with each other. Furthermore, a great deal of the older existing equipment cannot easily be retrofitted with the latest digital technology. Unfortunately, there is no choice but to work with this patchwork, since it would be impossibly expensive to build an entirely new, standardized infrastructure from the ground up.

So why are co-ops introducing smart grid technologies on a large scale? The answers are that the payoff could be immense in terms of grid reliability as well as energy efficiency.

Smart meters

Smart meters are probably the element of the smart grid you are most familiar with, since almost all Illinois co-ops have installed or are installing them. Smart meters use advanced electronics rather than the old spinning dials to measure electricity use, and they communicate with co-ops over a variety of wired and wireless network technologies.

"I think the biggest change from a member's perspective is the smart meter, where they don't have to read the meter anymore," says Dave Champion, Jr., President/CEO of Eastern Illini Electric Cooperative in Paxton.

However, smart meters have much more to offer than just a monthly meter reading. These new meters are virtually small computers or monitors with some data storage capability. They can monitor voltage at the end of a line making sure it stays within acceptable limits. Smart meters can help monitor blinking light issues that are hard to find, help in outage restorations, and best of all help provide new billing and rate options.

Digital smart meters can collect details on the amount of power being consumed in "real time." In other words, it's possible to provide data on exactly how much power a household or business is using at different times across the course of a day.

Champion says, "We can ping the meter to see if the power is out at that location. We can keep data and usage history and send that to the member if they have questions about their bill. Now we are introducing a new application called SmartHub, which is where you can use smart phones and iPads and the member can look at their own history over any period of time they want. They can also report an outage with the touch of a button on their iPhone or their iPad. So that technology is allowing the member to interact with us in this new smart grid age."

Board members are fully engaged in the change says Champion. For example, the Eastern Illini Electric board members have gone digital replacing the mailing of paper board reports, minutes and reference material with iPads.

The biggest change smart meters will provide is new rates and billing options. For example, Champion says the co-op is providing time of day rates to 100 members now and also offering a new prepaid billing option, all made possible with smart meter technology.

Valdes says, "That information is immensely valuable, because your cooperative's cost of producing power varies greatly throughout the day. The cost is greatest at times of high demand. For example, during a heat



**...smart meters have
much more to offer than
just a monthly meter
reading.**

*(Left) Dave Champion, Jr., President/CEO
of Eastern Illini Electric Cooperative*

wave, you probably want to run your air conditioner, especially during the daytime.” So does everyone else.

In order to fill the peak demand, co-ops may strain their power production facilities to the limit, sometimes even activating very expensive so-called “peaker” plants to handle periods of extreme demand.

For that reason, co-ops are very interested in encouraging members to shift their demands for power from peak times to off peak times.

That’s where a smart meter’s ability to record power consumption minute-by-minute and communicate with co-ops in real-time comes in. Co-ops will no longer need to charge a single uniform rate per kWh, regardless of whether the members are using expensively produced peak-time power or cheaply produced off-peak-time power. Instead, they can reward members who move their power consumption to off-peak times by offering them lower rates. With smart meters members will have the information they need to time their activities for off-peak lower rate times.

Smart appliances and home energy management systems

Smart appliances and home energy management systems are two things that you can expect to see more of as smart meters become standard. These smart appliances will help you take advantage of the pricing information available from the smart meters.

Valdes says, “Smart appliances will have the ability to choose the times to operate, given the owner’s preferences and the current pricing information from the smart meter. For example, a smart dishwasher could be loaded with dishes and then left alone to monitor current power costs until it observes a favorable price and ‘decides’ to run.”

Today’s thermostats will likely evolve into sophisticated “home energy management” systems, which can easily be configured by the



Smart appliances will help you take advantage of the pricing information available from the smart meters.

customer to achieve a balance of economy and convenience. Home energy management systems are based on the same idea as smart appliances, but give you a “one stop shop” for monitoring and managing the energy consumption of multiple household devices via one system.

Distributed generation and the smart grid

“Distributed generation” refers to the idea of electricity being generated by many small producers, instead of by a handful of large power plants. For example, ordinary homes and businesses might generate power from solar panels on their roofs, or small wind turbines in their yards.

Today, such technologies are still not common, and rarely generate enough power to satisfy 100 percent of the demand.

Shelby Electric Cooperative, Shelbyville, Ill., is already using its smart meter network to control and operate individual members’ propane fueled standby generators. The members get a lower interruptible electric rate and the co-op can switch the member off the grid during peak demand periods and onto the member’s whole-house generator. It’s all done remotely by using the smart meter network. This saves all the

co-op’s members by lowering peak system demand during the most expensive times of the year.

Much research remains to be done if renewable solar and wind distributed generation systems are to become practical. A major problem is that power from such sources is often available only intermittently; for example, solar panels are subject to cloud cover, and wind turbines are useless when the wind isn’t blowing. That intermittent quality presents serious challenges to the stability of the grid. Energy storage could be part of the solution and who knows, maybe electric cars could be integrated into the grid to both consume power off-peak and provide energy storage for the grid on-peak.

Security and privacy concerns

You may have heard someone express concern about the potential health impact of the radio frequency emissions from the meters’ wireless communications. In a 2010 study of one of the more commonly deployed smart meters, the nonprofit Electric Power Research Institute (EPRI) concluded that the exposure levels “fall substantially below the protective limits set by the Federal Communications Commission (FCC) for the general public.”

Even if there was a valid health concern with wireless smart meters, it doesn’t apply to the Illinois cooperative smart meters which all use power-line carrier communications instead of wireless. The power lines are the communications network.

Another concern often raised is privacy. Some people feel very uncomfortable with sharing their detailed energy use patterns with a utility. In part, those concerns can be allayed by cyber security technologies that make it very difficult for unauthorized people to access data or gain control. The debate is ongoing, and doubtless will play a role as policy decisions are made on the appropriate use of smart grid technology.

Smart grid security research at the University of Illinois

The smart grid is essentially a computer network and it requires the development of new “situational awareness” solutions that can prevent smart grid devices being compromised by hackers and threatening the stability of the grid.

Researchers at the University of Illinois at Urbana-Champaign are developing an advanced detection sensor that can identify security threats in real time. The sensor will monitor traffic among meters and access points to ensure that devices are running securely and that their operations conform to the specified security policy.

According to Valdes, “Conventional antivirus software typically hunts through a computer looking for strings of code that are already known to be associated with malicious intrusions. Since new malicious software is continually being created, that antiviral approach has a big limitation: it cannot recognize so-called ‘zero day’ attacks

that use new code not yet known to the antivirus software. A user may frequently update his or her antiviral tool and yet still become a victim.”

For that reason, rather than look for evidence of intrusions as antiviral software does, the Illinois sensor is being designed to detect ways in which smart grid systems are deviating from their complex specifications.

That research is one smart grid effort among many at the University of Illinois, which has several major power grid cyber security initiatives in progress. They include the \$18.8 million Trustworthy Cyber Infrastructure for the Power Grid Center (funded by the U.S. Department of Energy with additional support from the U.S. Department of Homeland Security) and the Illinois Center for a Smarter Grid (funded by the Illinois Department of Commerce and Economic Opportunity), among others. The smart grid security experts at the University of Illinois are also helping

Illinois electric co-ops with cyber security audits and providing conferences for utility experts to share ideas on improving grid security.

The smart grid changes are about providing better service to members. Champion says, “The mere fact that we serve members not customers is important to remember. Members are the owners of the organization. We have accountability to those members as board members and staff. It keeps our feet to the fire so that they have better service and we remain relevant in this rapidly changing world. Our density is still the same at about three meters per mile of line. That challenge was there in the beginning and it will be there in the future too. Despite providing new ways to communicate with members through smart meters or whatever else comes, we still have to be that organization where you can call and talk to the president of the organization and get answers to hard questions.”



Preparing for weather disasters

The three things everyone needs to do to prepare

Many years ago, Mark Twain said, “Everybody talks about the weather, but nobody does anything about it.” Mark Twain was right - to a certain extent. There is nothing we can do to change the weather. However, there is something all of us can do to make life a little easier for ourselves when the weather impacts our lives - we can be prepared!

Why prepare?

Local emergency managers and first responders do an outstanding job of assisting people after a disaster. However, in a widespread event, such as an ice storm, tornado outbreak or flooding, it can be several days before help arrives - particularly for those in rural areas.

First, we need to know what we are dealing with in Illinois. What is the deadliest weather in Illinois? Many people guess it is flooding or tornadoes. We certainly see our share of these events. Without a doubt, though, the most dangerous weather in Illinois is extreme heat and extreme cold. These two temperature extremes have killed nearly 12 times as many people in Illinois the past 20 years than all other weather events combined.

Having a properly working heating and cooling system, drinking plenty of fluids and making sure that livestock have fresh water and a fan blowing on them helps significantly. But what happens if you lose power? This is where preparedness comes in.

Three things you need for disasters

Being ready for disasters comes down to three things:

- having an emergency kit of items to help you and your neighbors cope after a disaster
- making a plan for different kinds of emergencies

- being informed about potential emergencies that can impact your community

Take into account not only the number of people in your household, or neighbors that you can help, but also pets, livestock and your business.

Make an emergency kit

Many people do not have a kit because they believe they will never need it. During extended power outages, flooding, or after storm damage, you will be glad you thought ahead. Use plastic totes to store items so they can be kept dry and portable. Items to have on hand include:

- Water (a gallon a day for each person) for drinking and sanitation
- A three day supply of non-perishable food and a manual can opener
- Flashlights with batteries
- First aid kit
- A whistle to signal for help
- Moist towelettes, toilet paper, and garbage bags for personal sanitation
- Basic tools for simple repairs or to turn off utilities
- A small supply of important medications
- Cash and extra set of keys
- Extra clothing, shoes and sleeping bags
- A weather alert radio with extra batteries to stay informed
- Pet food and small bowls

Make a plan

Make sure your family and your business has a plan in case of an emergency. The first thing to do is to determine how everyone will stay in contact in case of an emergency. Cell phone towers may be overloaded during emergencies, so texting a short message may be the best way to make contact. Another important step is to outline what you will do in the case of

an emergency. If you need to evacuate, pick a meeting place familiar to everyone in the family or business.

There is an excellent planning guide on FEMA's web page at: www.ready.gov/make-a-plan

Be informed

Whether you are at home, work or traveling, staying informed about potential hazards is very important. A majority of disasters are weather related, so stay abreast of the latest weather conditions. Warnings are issued by county, so if you are traveling, pay attention to the names of counties or nearby towns. Warnings also mean that the storm is occurring, or about to occur soon, so seek shelter for protection.

Weather alerts are available on local TV and radio stations, weather alert radios, the National Weather Service website at www.weather.gov, and through many cell phone/mobile device providers.

Benjamin Franklin once said, “By failing to prepare, we are preparing to fail.” Recent disasters in our country have proven the importance of this advice more than 200 years later.

Web Resources:

National Weather Service, www.weather.gov
Illinois Emergency Management Preparedness Information, www.ready.illinois.gov
FEMA Preparedness, www.ready.gov ■

Chris Miller is the Warning Coordination Meteorologist for the National Weather Service in Lincoln, Ill.





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Bringing a dead lawn back to life

How to find out if your lawn is dormant or dead

Summer's weather has touched just about everyone from farmers to city dwellers. Crops have withered as much as the landscape.

There is no way to accurately predict how long heat and dry conditions will last. If you could do that with 100 percent accuracy, let me know.

We can only hope that September will bring moisture and relief from triple-digit readings on the thermometer. And if that occurs, we at least can look toward our yards and think about what can be done.

Lawn grasses hopefully are just dormant and not dead, though even warm-season grasses such as buffalograss, zoysiagrass and Bermudagrass have suffered this year.

Grab a couple chunks of grass and peel back the outer brown leaves. If you run into a green crown behind all those layers, breathe a sigh of relief – the grass is still just dormant, and cooler weather and moisture should kick it into new growth.

On the other hand, if you find nothing but straw-colored tissue as you remove each leaf until you are left with nothing, the grass is dead.

White roots are another indicator of life. Brown and/or black leaves are time to say a few words of remembrance for greener pastures.

Just remember, dead is dead. If it were to come back to life with a little water, fertilizer and cooler temperatures, it wasn't dead. Depending on your religion, only two things have been brought back from being dead. Neither was a plant.

If you are growing cool season grasses such as bluegrass, ryegrass and fescues, September and October are the best months for seeding or overseeding.

Seeding should be the course if



more than 30-40% of the lawn is dead. Just kill the other percent, rototill it all in 6 inches deep, and scatter the new seed at the rate listed on the package, and water. Or hope for water.

If you are relying on nature, seed before a good steady rain.

Overseeding is done to thicken up a turf that still has some strong elements to it, and for those that just shake their heads at the thought of starting over from scratch.

You can scatter the seed on the lawn and lightly rake it in or cover it with a thin layer of soil. If you leave the seed on top, the birds will probably thank you in their own way, which hopefully won't involve white calling cards.

Seeding should be finished by middle to late September for the middle of Illinois, adding a couple weeks as you move south and subtracting a couple as you go north. Of course, that's during a typical year.

Ultimately, we want 6 to 8 weeks of good growing conditions for the grass

seedlings to mature for the winter. Since winter usually arrives around the first of December, you can plan accordingly, but remember not all grass seed germinates at the same rate.

The warmer the soil, the faster the seeds sprout. As the soil cools, it takes longer for seed to germinate.

Not all grasses germinate at the same rate. Ryegrasses seem to pop up overnight while bluegrass can take a week or two. Just remember to keep the seed bed watered throughout the germination process.

And if all that seems like too much work, there is always green latex paint that could be diluted and sprayed on the brown blades to give the lawn some color. ■

David Robson is Extension Specialist, Pesticide Safety for the University of Illinois. drobson@illinois.edu



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Change Part II

“The more things change, the more they remain the same”

As I am writing this article, we are experiencing what will probably be one of the hottest summers ever recorded for our state. Think about those words, ever recorded. Well, thank goodness for September and October.

I am answering dozens of calls each day from folks who have received high utility bills or have house problems related to the excessive heat. Most of those calls are about the same as the ones that I have received in summers past.

I know for a fact that the local electric co-ops also receive plenty of similar calls. I decided to ask the member services representative of each co-op to provide a list of the energy usage questions that were most often asked by their members. I received those lists and they all contained really good questions. The reason that these questions are so often asked is because there is no one simple or obvious answer. Since these questions are asked so often, let's use the next few articles to answer them.

QUESTION: Should the thermostat be adjusted when leaving the house?

If I had a dollar for every time that I have been asked this same question, I could buy my wife a nice new fishing rig for her birthday. It was mentioned that this question was often asked to settle an argument between a husband and wife. My wife and I stopped at our favorite snow cone trailer last week for some cool refreshments. The lady at the window said that she had just finished reading my August column about the radio program. I told her thank you and that I had just started writing the September column, which would be about playing with the thermostat. She leaned back, turned to her husband, and told him to come to the window and listen to what I had to say. Well the answer is:



YES, NO, or MAYBE. Aren't you glad that you read this column?

The real answer depends on several factors, such as the outside temperature, the energy efficiency of the house and how long you will be away. Remember that the more energy efficient the house, the less that you even need to think about adjusting the thermostat. If your house is energy efficient with low utility bills, you can't save much, if any, by playing with the thermostat.

For the average house, I think that we would all agree that it won't make much difference either way if the outdoor temperature is mild. But let's take a look at hot summer days. If you raise the thermostat setting from 75 to 85 degrees, everything in the house will try to change to 85 degrees – the walls, the carpet, the furniture, even the dishes in the cabinet, everything. And when you adjust the thermostat back to 75 degrees, the air conditioning unit will have to re-cool everything in the house back to 75 degrees, which might require more energy than if you had just left the thermostat alone. If you are going to be gone for several days, it

is probably okay to make that change. However, it is usually not necessary to adjust the thermostat if you are going to be gone only a day or so, unless your house is very energy inefficient.

In the cold winter, the same advice applies. And also be aware that some heat pumps are wired where the heat strips will come on if you raise the thermostat setting a few degrees. Having the heat strips come on may increase your utility bill.

Generally speaking, it is not usually necessary to adjust the thermostat setting if the house is energy efficient.

I hope that encourages us all to make our houses more efficient. As always, call me if you have questions. See you when the leaves are pretty. ■

Doug Rye can be heard on several different Illinois radio stations. You can go to Doug Rye's Web site at www.dougyrye.com, e-mail him at info@philliprye.com, or call 501-653-7931.



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The Association of Illinois Electric Cooperatives salutes . . .

Cooperatives in Illinois that provide water

Water is foremost on the minds of many in rural areas today, and thanks to several Illinois water cooperatives, there are many that don't have to worry about the wells running dry. These member-owned utilities provide safe, reliable and sustainable water services to thousands.

In 1946, the Farmers Home Administration (FmHA) was given the responsibility to bring about water programs for the rural population. Many water cooperatives were established with significant help from rural electric cooperatives.

EJ Water Cooperative, Inc., located in Dieterich, Ill., was incorporated in May of 1989 and has developed into an eight-county regional water system serving members in Effingham, Jasper, Clay, Crawford, Cumberland, Richland, Fayette and Shelby counties. It is one of the fastest growing water systems in the state of Illinois and recently became the largest rural water cooperative in Illinois. From its first phase built in 1993 and serving 520 households and 100 miles of water mains, EJ Water has grown to more than 7,500 rural memberships over 1,500 miles of water mains. In 2010, the cooperative opened its new

Delbert D. Mundt Water Treatment Plant which now has the capacity to produce 3.0 million gallons per day (MGD). Mundt, a strong community leader, also served on the board of directors for Norris Electric Cooperative in Newton, Ill.

As is often the case, finding sufficient funding can be the deciding factor in expansion. According to Bill Teichmiller, CEO of EJ Water, "The co-op would not have served one drop of water to anyone without funding. To date the USDA – Rural Development has provided the co-op with more than \$50 million in grant and loan funding coupled with significant grant dollars from the Illinois Department of Commerce and Economic Opportunity's (DCEO) Community Development Assistance Program. Make no mistake – this funding is the lifeline and fuel that has brought this dream into a reality."

Lincoln Prairie Water Company located in Shelbyville, Ill. currently serves more than 1,600 customers in Shelby County and has plans to expand into Montgomery and Christian counties. The first two phases have been completed for a total of 160 miles of water lines.

Lincoln Prairie Water has strong ties with Shelby Electric Cooperative also headquartered in Shelbyville.

SouthWater, Inc. is a regional water system deep in southern Illinois. Southern Illinois Electric Cooperative was encouraged by area leaders to look into the possibility of a regional system which would enhance the quality of life and residents and stimulate economic growth. SouthWater has received more than \$14 million in grants and \$6.5 million in loans. It currently has 900 retail users, 7 full-time wholesale users and 4 part-time users over approximately 225 miles of water main.

Over the years electric cooperatives like Adams Electric Cooperative, Clay Electric Cooperative, Egyptian Electric Cooperative, EnerStar Electric Cooperative and others have been instrumental in starting, helping or even running rural water cooperatives. These cooperative efforts are examples of two cooperative principles—cooperation among cooperatives and concern for community.

In celebrating the International Year of the Cooperative, we want to show our support for the cooperative model. Please join us each month as we continue to feature a different cooperative that you may recognize or might also be a member.

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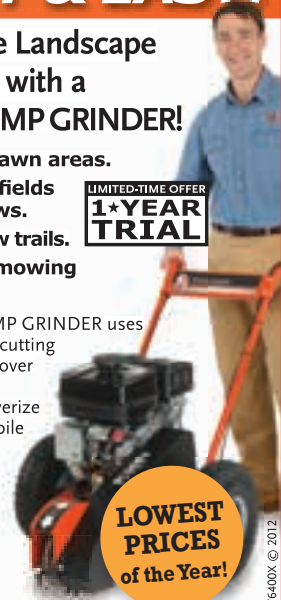
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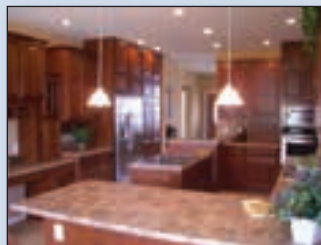


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Confetti Casserole



Confetti Casserole (above)

1 lb. hamburger
1/4 C. onion, chopped
1 tsp. salt
1/8 tsp. pepper
1/4 tsp. dry mustard
1 T. brown sugar

8-oz. cream cheese
8-oz. tomato sauce
10-oz. frozen mixed vegetables
1/2 C. diced potatoes
Crushed corn chips

Brown hamburger with onion; drain. Mix in spices and cream cheese. Heat until cheese melts; then add tomato sauce. Put in a casserole dish and sprinkle crushed chips over top. Bake, covered, at 375 degrees for 40 minutes. Uncover and bake an addition 10 minutes.

Reese's Bars



Joy Of Cooking

Who: Visitation Church, Alexander, IL

Cost: \$12, including shipping

Details: soft-backed, comb-bound

Pages of recipes: 89

Send checks to: Edith Johnson,
1109 Sangamon Morgan Rd.,
Alexander, IL 62601 or call 217-478-3681.

Fondue Dip

2 lbs. Velveeta Cheese
1 can Milnot or Pet milk
1 pkg. Italian salad dressing
2 lb. sausage
Fritos or Triscuits

Melt cheese in a medium pan; stir in milk and dressing mix. Brown sausage and drain. Mix sausage with cheese. Keep warm in a fondue pot. Serve with Fritos or Triscuits.

Almond Bark Cookies

2 lb. white chocolate
1 C. peanut butter
3 C. mini marshmallows
3 C. salted peanuts
3 C. rice cereal

Melt chocolate in a double boiler; add peanut butter. In a large bowl, mix other ingredients together. Then pour chocolate mixture over dry ingredients. Stir well. Spoon mounds onto waxed paper. Let set for 1-2 hours.

Reese's Bars (left)

2 sticks butter, melted
2 C. powdered sugar
2 C. peanut butter
2 C. graham cracker crumbs
1 (12-oz.) pkg. milk chocolate chips

Mix together butter, sugar, peanut butter and graham cracker crumbs. Spread on a cookie sheet. Put pan in freezer to set for 1 hour. Once set, melt chocolate chips and pour over top. Spread and smooth. Cut into bars and serve.

*Photos by
Catrina McCulley Wagner*

*Visit www.icl.coop
to see an archive of past
Illinois Country Living recipes.*

Flock To The Kitchen

Who: Pulaski-Alexander County Extension

Cost: \$8 including shipping

Details: soft-backed, comb-bound

Pages of recipes: 245

Send checks to: Amy Kerr, 52 Wessenberg Rd., Villa Ridge, IL 62996 or call 618-697-1476. Make checks payable to HCE.



Spinach Dip

Spinach Dip (above)

1 pkg. frozen spinach, uncooked
1/4 C. fresh parsley
1/2 C. onion, chopped
1 tsp. salt
1/2 tsp. pepper
2 C. mayonnaise
Tabasco sauce, to taste

Thaw and squeeze all liquid from spinach. Mix all ingredients together in a blender. Serve with your favorite vegetables.

Baked Chili

2 lbs. ground beef
1/2 C. catsup
1 lg. onion, chopped
2 (15-oz.) cans chopped tomatoes or tomato sauce
1-1/2 T. chili powder
1 green pepper, chopped, optional
2 (16-oz.) cans chili beans

Shape ground beef into balls and roll in flour and brown. Drain. Put into a 9x13-inch pan. Combine the rest of the ingredients in a med. pan, and bring to a boil and then simmer for a few minutes. Pour over meatballs. Bake for 1 hour at 400 degrees.

Danish Pork Chops

6 center cut pork chops, well trimmed
2 med. potatoes, peeled and quartered
2 chicken bouillon cubes
1 tsp. salt
1 tsp. curry powder
Dash of pepper
1 C. coarsely chopped apple
1 T. lemon juice

In a large, heavy, non-stick skillet, brown pork chops on both sides. Drain off any fat. Add potatoes, bouillon cubes, salt, curry powder, pepper and 2 C. water. Cover and simmer for 45 minutes, or until pork chops are almost tender. Add apples and lemon juice; simmer 15 minutes more.

Reply Online

*Tried a recipe?
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Omelet Pizza

2 sausage patties
Thick sliced onion, chopped
1-oz. green pepper, chopped
1-oz. mushrooms, chopped
Garlic and oregano, to taste
2 eggs
1 pat butter
Salt and pepper, to taste
1-1/2 oz. Mozzarella cheese
1-oz. pizza sauce

Sauté sausage, peppers, onions and mushrooms seasoned with garlic and oregano. Whisk 2 eggs in a bowl. Melt butter in an omelet pan at medium heat. Pour in egg mix, and when it starts to get firm on the bottom, use a spatula to pull uncooked portion to the center of the pan, allowing uncooked eggs to run back out to the edge. Do not fold, as omelet will be served open faced as a frittata. Spread Mozzarella cheese over omelet. Then spread pizza sauce over cheese. Break up sausage and scatter it with other ingredients over entire omelet. Shake omelet pan to loosen omelet and spill out onto plate in one motion or cut into shaped servings and serve from pan.

Spot the s, look for the lock

It's been a few months since the last reader question column. Thank you for all the questions. Please keep them coming. I appreciate the back and forth. This month let's answer an inquiry that several of you have e-mailed to me.

Q Cathy from Anna asks, "I keep reading all of these warnings about viruses, and I saw something on the news the other day about online scams. How do I know when it is ok to enter information on a website?"

A Well, I'm not going to tell you that you should ever be one hundred percent trusting of any website, but there are some indicators you can use to "surf" securely. Anytime you look at a website, information is sent from your computer to the computer that hosts that website.

That computer is called a "web server." Once the web server receives the request from your computer, it then sends the information requested back to your computer for your browser to display. You may be using one of several different browsers, i.e. Internet Explorer, Firefox, Chrome. It doesn't matter which one you use. At their core, they all perform this function.

The problem is that normally the transmission of this information is sent in "plain text," meaning anyone would be able to read it should they see it, which should be no problem, right? Well, there's another issue. Rarely, do you make a connection directly to a web server when you surf the Internet. Rather, each piece of information transmitted, traveling in both directions, hops from server to server many times before it reaches its destination.

Let's look at this process in action. Keep in mind these steps may be different depending upon what version of Windows you're using, but for most of you the following process should work.



1. On your computer, click Start
2. Type "cmd" and click "OK" (or press Enter)
3. Type this in exactly: `tracert www.icl.coop`
4. Press Enter

Do you see all of those strings of numbers that appear? Those are all different web servers that your data gets pushed across in order to reach our web page. And, most of the time, that's perfectly fine. What happens when you want to purchase something online, or visit your bank's website? Do you really want your information sent out across that many servers? Remember, those servers are just computers, and you have no idea who owns those computers.

Ok, now that we've looked at why it's bad to send that type of information over the web, let me show you how to know when you're surfing securely.

Fortunately, in 1994 a little company called Netscape created something called "Secure Socket Layers," or SSL to secure web browser communications over networks. Basically, SSL uses a complex system of key exchanges between your browser and the web server you're communicating with in order to encrypt data before sending it out across all of those other computers over the web.

When you have an active SSL session open with a web server, you can say you are surfing securely.

But, how can you tell if a web page is using SSL?

There are really two ways. First, check the Uniform Resource Locator, or URL. That's just a fancy way of saying check the address of the website you're using. You probably didn't have to type in the `http://` in your web browser. Most browsers fill in that data now. But, if you look in the browser window at the top while you're on a web page, you'll see it. If there is nothing before the "www" (or the web address), then you're browsing on standard `http`. Anything you send is not encrypted, and thus it's not safe to transmit data that you consider sensitive.

However, if you see `https://` before the URL, then you know you're on a site with an active SSL session open. It's very important that you see the "s" after the `http`. There's also another obvious indicator.

It's pretty standard practice these days for browsers to display a lock icon when you are on a page that has an active SSL session. Newer browsers usually keep the lock right by the URL. Older browsers have it located in various places on the screen. That lock is not just a little picture of a lock. Click on it and you'll see data displaying the security certificate of the site you're visiting. That way you can make sure you're in the right place.

Ok, I hope that helps! Just remember, to be sure you're surfing securely do two simple things:

Spot the "s" and look for the lock!

 Reply Online

www.icl.coop and click Powered Up

Ed VanHoose is the Digital Communications Administrator/IT Manager for the Association of Illinois Electric Cooperatives in Springfield.



evanhoose@aiec.coop

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- 3) Prepayment is required. Include check or money order with ad for amount due. Also include address label from Illinois Country Living or other proof of Illinois electric cooperative membership. Only members of Illinois electric cooperatives may place Marketplace ads.
- 4) Mail to: Illinois Marketplace, P.O. Box 3787, Springfield, IL 62708, by deadline.
Deadlines: November issue - September 20;
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We reserve the right to reject any advertisement. Ads postmarked after the deadline will be placed in the next available issue.

Advertising in Illinois Country Living Produces Results

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The speed of light(ing)

Co-ops help blaze trails for efficient lighting technology

By Megan McKay-Noe, CCC

After maintaining a steady pace for a century, lighting technology has begun to leap forward, fueled by tightening energy efficiency standards and hefty incentives for manufacturers. And despite a bit of price shock on some lighting products, co-op members—especially large commercial and industrial accounts—are working with their local, not-for-profit, consumer-owned power providers to see if emerging lighting options can curb rising costs.

Shifting standards

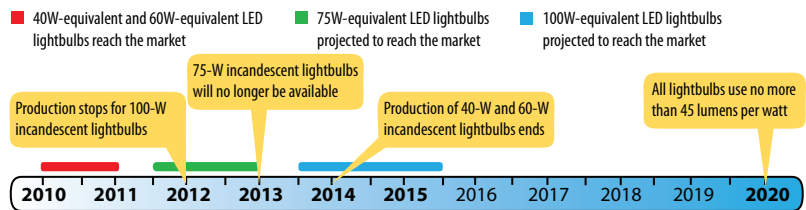
Congress first enacted improved energy efficiency standards for incandescent bulbs under the federal Energy Independence and Security Act of 2007. But when new lightbulb rules began to take effect in 2012, they were met with confusion.

Under the law, by 2014, lightbulbs using between 40-W to 100-W must consume at least 28 percent less energy than traditional incandescents, which will save Americans an estimated \$6 billion to \$10 billion in lighting costs annually. The measure also mandates that lightbulbs become 70 percent more efficient by 2020.

In June of this year, the U.S. House passed an amendment to stop enforcement of these standards, mirroring a funding freeze for enforcement efforts adopted in late 2011. Yet even if the provision becomes law, very little will change. Congress has not repealed or adjusted existing lightbulb efficiency standards or changed the

LEDs: A Decade of Change

By 2014, lightbulbs using between 40-W to 100-W must consume at least 28 percent less energy than traditional incandescents, saving Americans an estimated \$6 billion to \$10 billion in lighting costs annually. The federal Energy Independence and Security Act of 2007 also mandates that lightbulbs become 70 percent more efficient by 2020. Light-emitting diodes (LEDs) are quickly evolving to meet this challenge. Learn more: EnergySavers.gov/Lighting



Source: U.S. Department of Energy Lighting Facts Product Snapshot: LED Replacement Lamps 2011

timeline for implementation. Major lighting manufacturers like General Electric, Philips, and Osram Sylvania continue working to comply with the 2007 law.

As the next wave of standards kicks in, traditional 75-W incandescent lightbulbs will no longer be available as of January 1, 2013, and 40-W and 60-W versions will no longer be available as of January 1, 2014. In the race to fill the nation's growing need for efficient lighting comes a new breed of illuminators, led by light-emitting diodes (LEDs).

'Solid' lighting

Incandescent bulbs create light using a thin wire (filament) inside a glass bulb—a delicate connection that can

easily be broken, as frustrated homeowners can attest. In contrast, LEDs are at the forefront of solid-state lighting—small, packed electronic chip devices. Two conductive materials are placed together on a chip (a diode). Electricity passes through the diode, releasing energy in the form of light.

Invented in 1960 by General Electric, the first LEDs were red—the color depends on materials placed on the diode. Yellow, green, and orange LEDs were created in the 1970s and the recipe for the color blue—the foundation for white LEDs—was unlocked in the mid-1990s. Originally used in remote controls, exit signs, digital watches, alarm clocks, and car signal lights, LEDs quickly gained momentum for large-scale lighting.

By 2030, the U.S. Department of Energy estimates solid-state lighting technologies could reduce the amount of electricity used for lighting (currently 13.6 percent of the nation's total) by half, saving up to \$30 billion a year in energy costs.

Farming LEDs

Electric cooperatives are supporting LED study through the Cooperative Research Network (CRN), an arm of the Arlington, Va.-based National Rural Electric Cooperative Association. Recently,



← This LED bulb won the \$10 million L-Prize from the U.S. Department of Energy.

Source: Philips



CRN worked with Western Farmers Electric Cooperative, a generation and transmission cooperative based in Anadarko, Okla., and the Oklahoma State University Animal Science Department to evaluate LEDs at a farrowing operation and a dairy farm in the Sooner State. The project measured the effectiveness of LEDs in harsh environments and looked for any influence on animal behavior.

T-Bar M Dairy Ranch, outside of Durant, Okla., normally uses 250-W metal halide lights in its barns. CRN exchanged those bulbs in 10 fixtures with 120-W LEDs. After six months, the dairy had cut energy use by 55 percent and boosted brightness by 30 percent.

“Utility costs go up every year—that’s reality,” explains Tami Tollenaar, who manages the dairy. “To move forward in your business, you have to look for ways to be more efficient. LEDs are one of the things we can do to help us move forward.”

CRN also worked with Robinson Family Farms, a 380,000-head hog operation in Holdenville, Okla. The farm already used compact fluorescent lamps (CFLs) but had problems because those bulbs didn’t work well in harsh conditions.

“Lighting for a swine facility is pretty important,” explains owner Rich Robinson. “We try to convince the sows it’s spring year-round to improve their eating habits.”

CRN switched 25 fixtures from 26-W CFLs to 15-W LEDs. After six months, Robinson slashed his energy use by 54 percent.

“I was worried because normally when you see an LED it doesn’t seem to put out as much light as a 150-watt incandescent bulb—it’s a different type of light,” Robinson admits. “But, after installing the lights, I was surprised at how well they lit up the area. I think the LEDs actually outperformed the CFLs.”

“The initial cost of LEDs is significantly higher than conventional lighting,” notes Scott Williams, Western Farmers Electric commercial & industrial marketing manager. “Like all modern technology, you can



The T-Bar M Dairy Ranch, outside of Durant, Okla., normally uses 250-W metal halide lights in its barns. CRN exchanged those bulbs in 10 fixtures with 120-W LEDs. After six months, the dairy had cut energy use by 55 percent and boosted brightness by 30 percent. Source: Cooperative Research Network

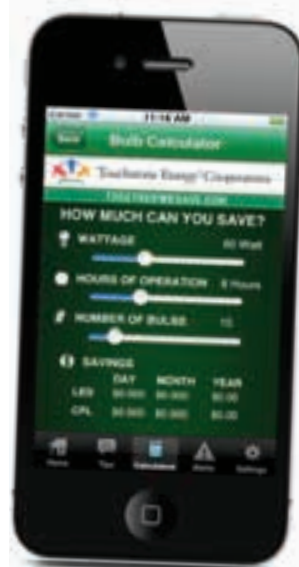
expect the price to come down as the product develops. However, when you consider all the factors over the life cycle of a light, LEDs have already proved they save money.”

Shedding Light on LEDs

Curious to know if LEDs are right for you? Homeowners can visit www.energysavers.gov/lighting to compare LEDs to new energy-efficient incandescent bulbs and CFLs. The Touchstone Energy® Cooperatives free app, “Save Energy,

Save Money” for iPhone, iPad, and Android devices, includes a lighting calculator showing the potential savings from replacing incandescent lamps with either CFLs or LEDs; learn more at www.togetherwesave.com/Energy-Saving-App-Smartphones. For more in-depth information about LEDs and other types of solid-state lighting, visit www.eere.energy.gov/buildings/ssl.

Touchstone Energy® → Cooperatives’ free app, “Save Energy, Save Money” for iPhone, iPad, and Android devices, includes a lighting calculator showing the potential savings from replacing incandescent lamps with either CFLs or LEDs. Source: Touchstone Energy® Cooperatives



Sources: U.S. Department of Energy, Cooperative Research Network, Philips, ENERGY STAR, U.S. Energy Information Administration Megan McKoy-Noe, CCC, writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the Arlington, Va.-based service organization for the nation’s 900-plus consumer-owned, not-for-profit electric cooperatives. Rob Holt contributed to this article.

4-31 Richardson Farm Experience at the farm near Spring Grove offers the “World’s Largest Corn Maze” which celebrates the 100th anniversary of Girl Scouting. It also features 30 others activities including a pumpkin patch, wagon rides, pedal carts, zip line, a special area just for little ones, etc. Open Weds.-Thurs. 3 – 10 p.m., Fri.-Sat. 10 a.m. – 11 p.m. and Sunday Noon – 10 p.m. Admission is \$13 for ages 13 and up, \$10 for children 4-12 and free for those 3 and under. www.RichardsonAdventureFarm.com or 815-675-9729.

5-7 Oktoberfest at St. Mary’s Church in Alton. www.stmarysoktoberfest.com or 618-465-4284.

5-7 Touchstone Energy Balloon Fest and Scarecrow Daze on Lake Shelbyville. www.lakeshelbyville.com or 217-774-3986.

5, 6, 12, 13, 19, 20, 26, & 27

Mary’s Ghost Walk, Springfield. Starts at 7:45 p.m. at the Old State Capitol Plaza in front of Lincoln’s law office. www.springfieldwalks.com or 217-502-8687.

6-7 Galena Country Fair at Grant Park in Galena offers more than 150 vendors selling everything from arts and crafts, fair food, and homemade baked goods. It also includes a farmer’s market and live entertainment including family fun with children’s games. Hours are Saturday 10 a.m. – 5 p.m. and Sunday from 10 a.m. – 4 p.m. A \$2 admission donation is appreciated. www.GalenaCountryFair.org.



Visit our website, www.icl.coop

6 22nd Annual Apple Festival at the Jersey County Historical Society in Jerseyville. 9 a.m. to 5 p.m. www.jerseyusa.net, 618-498-2811 or 618-639-4749.

6 Duck Booya and Chicken Dinner at St. Ann Church in Raddle. Two miles West of IL Route 3 and South of Chester. 618-426-3321.

6, 7, 13, & 14

Oakford Fall Festival at the Town Hall in Oakford. Crafts, wood items and homemade baked goods. 217-635-5020.

7 Wood River Fall Festival in downtown Wood River. 12 p.m. to 8 p.m. Music, food, crafts, free kidz zone, pumpkin decorating and more. www.woodriverfallfestival.com.

8-14 National Wildlife Refuge Week at Crab Orchard National Wildlife Refuge in Marion. Discovery Tours: Oct. 7, 14, 21, & 28 from 1 p.m. to 4 p.m. 618-997-3344.

13 Barn Quilt Heritage Trail McLean County Opening Event at the David Davis Mansion in Bloomington. 10 a.m. to 2 p.m. Poetry reading, barn quilts auction, food and children’s activities. 309-662-5883.

13 Colorfest at Alto Vineyards in Alto Pass. 12 p.m. to 6 p.m. Live music, homemade grilled pizzas and wine. www.altovineyards.net or 618-893-4898.

13 Groove Walk, Rockford. 9 p.m. to 1 a.m. www.onthewaterfront.com or 815-964-4388.

13-14 Harvestfest at Berryville Vineyards in Berryville. Sat. 12 p.m. to 7 p.m. and Sun. 12 p.m. to 6 p.m. Wine tasting, winery and vineyard tours,

games, contests, music and food. www.berryvillevineyards.com or 618-456-2335.

13-14 Flags Over the Mississippi/Struggle for Empire at the Lewis and Clark State Historic Site in Hartford. 10 a.m. to 4 p.m. Reenactments, presentations and demonstrations. www.campdubois.com or 618-251-5811.

20 Batfest, Batavia. 10 a.m. to 4 p.m. Zombie walk from 3 p.m. to 7 p.m. www.downtownbatavia.com or 630-761-3528.

27 Oblong Fall Follies, Oblong. Crafts, Battle of the Bands, quilt show, food and a nighttime parade. 618-592-4241.

27 Bootiful Nauvoo Halloween Celebration, Nauvoo. Parade, haunted house, children’s activities and carved pumpkins. www.beautifulnauvoo.com or 217-453-6648.

27 Dark River Roller Derby at Scotties Fun Spot in Quincy. Bout starts at 7 p.m. Each bout is family friendly and benefits a different charity. www.darkriverderby.com or 217-222-3868.

27 85th Annual Halloween Parade & Fall Festival in downtown Centralia. 8 a.m. to 4 p.m. with parade at 7 p.m. Craft show, kids games, chili cook-off and more. 618-532-6789 or 888-533-2600.

27 Sustainable Living Expo at the Dixon Springs Agricultural Center near Glendale. 9 a.m. to 4 p.m. Over 150 available presentations and demonstrations on home energy, local foods, conservation and survival. www.SLEexpo.org or 618-638-6954.

To be considered for inclusion, please submit events in the format used above. Preference is given to events sponsored by non-profit entities. Submitting an event is not a guarantee of publication. Photos are welcome, but will not be returned unless a self-addressed and stamped envelope is provided. Events are subject to change, so please contact the event sponsor for confirmation.

Deadline: September 15 for December events. **Mail to:** Illinois Datebook, PO Box 3787, Springfield, IL 62708. E-mail to: datebook@aiecoop.org.

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PITTSBURGH 12" RATCHET BAR CLAMP/SPREADER
LOT NO. 46807/68975/69221/69222

Item 46807 shown

SAVE 63%
\$1.99 REG. PRICE \$5.49



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CENTECH AUTOMATIC BATTERY FLOAT CHARGER
LOT NO. 42292/69594/69955

Item 42292 shown

SAVE 61%
\$4.99 REG. PRICE \$12.99



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HaulMaster MOVER'S DOLLY
LOT NO. 93888

1000 LB. CAPACITY

SAVE 46%
\$7.99 REG. PRICE \$14.99



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drillmaster 1500 WATT DUAL TEMPERATURE HEAT GUN (572°/1112°)
LOT NO. 96289

SAVE 60%
\$7.99 REG. PRICE \$19.99



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29 PIECE TITANIUM NITRIDE COATED DRILL BIT SET
LOT NO. 5889

drillmaster

SAVE 60%
\$9.99 REG. PRICE \$24.99



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WIRELESS DRIVEWAY ALERT SYSTEM
Bunker Hill Security

Item 93068 shown

SAVE 56%
LOT NO. 93068/69590

Requires one 9 volt and three C batteries (sold separately).

\$12.99 REG. PRICE \$29.99



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18 VOLT CORDLESS 3/8" DRILL/DRIVER AND FLASHLIGHT KIT
drillmaster

Includes one 18V NiCd battery and charger.

SAVE 50%
LOT NO. 68287/69652

Item 68287 shown

\$19.99 REG. PRICE \$39.99



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CENTRALPNEUMATIC 3 GALLON, 100 PSI OILLESS AIR COMPRESSOR
LOT NO. 97080/69269

Item 97080 shown

SAVE 50%
\$39.99 REG. PRICE \$79.99



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PITTSBURGH AUTOMOTIVE RAPID PUMP® 3 TON HEAVY DUTY STEEL FLOOR JACK
WEIGHS 74 LBS.

Item 68048 shown

SAVE \$70
\$69.99 REG. PRICE \$139.99

LOT NO. 68048/69227



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2 PIECE STEEL LOADING RAMPS
HaulMaster

1000 LB. CAPACITY

Item 44649 shown

SAVE 50%
LOT NO. 44649/69591/69646

\$39.99 REG. PRICE \$79.99



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US GENERAL 30", 11 DRAWER ROLLER CABINET

INCLUDES:
• 6 Drawer Top Chest
• 2 Drawer Middle Section
• 3 Drawer Roller Cabinet

LOT NO. 67421

SAVE \$150
\$149.99 REG. PRICE \$299.99



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“HONEY Can Heal WHAT?”



(By Frank K. Wood)

If you want to learn how to use gentle folk remedies to unleash your body's healing power instead of resorting to dangerous prescription drugs or risky surgery, you need *The Folk Remedy Encyclopedia: Olive Oil, Vinegar, Honey and 1,001 Other Home Remedies*, an informative new book just released to the public by FC&A Medical Publishing® in Peachtree City, Georgia.

You'll be amazed by how many inexpensive, easy, natural cures you can find all around you — in your pantry, garden, garage, and grocery store.

The authors provide many health tips with full explanations.

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- ▶ One super vitamin protects your vision, fights infections, keeps skin, bones, and cells healthy, plus fights heart disease, cancer, memory loss, arthritis, liver disease, Parkinson's, and complications of diabetes. Are you getting 100%?
- ▶ Miracle healing seed lowers blood pressure, reduces risk of stroke, plus fights arthritis, heart disease, type 2 diabetes, stomach disorders, and even mental problems!
- ▶ Prevent high blood pressure, colon cancer, senility, and fragile bones. All with one — yes, one — inexpensive daily supplement that keeps you healthy and strong.
- ▶ Here's the secret to naturally block out calories from foods. Just add this when you eat — and watch the weight melt away.
- ▶ Nature's wonder food for your body — once praised by Gandhi. Fights heart disease, high blood pressure, stroke, arthritis,

type 2 diabetes, and even protects against breast, colon, and prostate cancer!

- ▶ Clogged arteries virtually disappear when you add this to your life every day.
- ▶ It protects your heart, lowers your cholesterol, fights cancer, and much more! Researchers take a good look at this “miracle” mineral.
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- ▶ Trick your body into losing weight! Melts off fat safely, naturally, and best yet, easily.
- ▶ Give your brain the nutrients it needs for a better memory. Don't let your brain deteriorate when you can so easily power it up.
- ▶ Discover an antioxidant that's so powerful for your eyes that it fights night blindness, cloudy corneas, and can even successfully treat an eye disorder that leads to blindness!
- ▶ What you should never eat when taking this prescription drug. This is critical news you won't hear from your doctor or pharmacist!
- ▶ You can improve your eyesight without glasses, without contact lenses, surgery, drugs, or medicine of any kind.
- ▶ Tomato juice for high cholesterol? Yes, tomato juice can keep your cholesterol from oxidizing and attaching to your artery walls. A new study shows how much you need to drink each day.
- ▶ Rebuild your joints and relieve arthritis pain. Natural ways to help your body repair itself.
- ▶ Unclog your arteries with purple grape juice! Studies show that purple grapes can reduce blood clotting by 91%.
- ▶ The amazing healing power of honey. It's not just a sweetener anymore. Use it to cure these 4 common problems.

- ▶ Frustrated because you can't lose weight? Forget dieting! Just “fluff” up your foods instead and watch the pounds drop off. Pennsylvania State University study.
- ▶ Flex your mental muscle and send Alzheimer's packing. Simple mental activities that build your brainpower and ward off the ravages of Alzheimer's.
- ▶ Open up blood vessels narrowed due to heart disease. Relax with this beverage and decrease your chances of suffering a debilitating stroke.
- ▶ Nature's insulin controls blood sugar and type 2 diabetes. What is it? Cinnamon! It helps your fat cells recognize and respond to insulin better.
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