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www.icl.coop
800-593-2432 • info@icl.coop
**For address changes contact your
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CIRCULATION COORDINATOR
Connie Newenham

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Visiting local pick-your-own apple orchards is part of the fall experience for many. *Photos courtesy of Eckert's Orchards.*
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Geothermal deserves tax credit parity

There's a saying in the lobbying world: Be Persistent, Be Seen and Be Consistent. The Geothermal Exchange Organization (GEO) recently returned to the capitol for the sixth time this year. GEO board members along with six members of our two advocacy teams ascended Capitol Hill in early June for 29 meetings with members of Congress. More meetings were held the last week of June and then after the July 4 break. In total, GEO has met with over a hundred members of Congress since the beginning of the year.

Our message - Enact legislation and give the geothermal heat pump industry exactly what the solar industry got last December, with extensions of its tax credits for five years in the Omnibus spending bill.

GEO has met with senior staff of Congressional leadership twice this year, and again asked that Congress fix the inequity of applying the tax

do exactly what the geothermal heat pump industry is asking for. GEO's objectives during the most recent trips to Washington were to increase the number of House Republican and Democrat co-sponsors of H.R. 5167, and to get a bipartisan companion bill introduced in the Senate. We were warmly received by many, and gratified by their support as evidenced by the increasing number of House co-sponsors we are getting to sign onto the bill.

We believe that another reauthorization bill for the Federal Aviation Administration (FAA) will have to be passed by July 15, and that it could provide the legislative vehicle for our amendment.

We are hearing more and more senators and representatives stating the need to level the playing field for renewable energy incentives before comprehensive tax reform is debated next year. If not the FAA bill, we will work to find another legislative vehicle after the summer recess. If that doesn't occur, we will look for a final opportunity this year, after the elections, during the lame duck session of Congress. Persistence counts.

GEO's call for parity has been amplified by others supporting our effort, including the National Rural Electric Cooperative Association (NRECA), National Association of Home Builders, Distributed Wind Energy Association, Fuel Cell and Hydrogen Energy Association and many others.

GEO and 18 other organizations have signed a letter to the four original co-sponsors of H.R. 5167 (Tom Reed [R-NY], Mike Thompson [D-CA], Pat Meehan [R-PA], and Earl Blumenauer [D-OR]) expressing support for their bill. A copy of this letter and other information about the work of GEO can be found on our website, www.geoexchange.org.



Rest assured, that for the remainder of the year GEO—the Voice of the Geothermal Heat Pump Industry—will Be Persistent, Be Seen and Be Consistent!

With tax parity more co-op members will be able to afford geothermal heat pumps. Remember, geothermal heat pumps are the most efficient heating and cooling technology in the world. Compared to conventional HVAC equipment, they can save up to 75 percent more energy. A recent U.S. Department of Energy study showed that 75 percent of the average home's energy needs can be met with the earth's stored thermal energy. By tapping into that thermal energy, a building's heating and cooling needs can largely be met by a source right under our feet. ♡

Our message - Enact legislation and give the geothermal heat pump industry exactly what the solar industry got last December.

code in Sections 48(a) for commercial projects and 25D for residential jobs. GEO has been persistent, certainly seen, and the "ask" has never changed.

The challenge is finding a legislative vehicle and working through the political process. We are now focused on H.R. 5167—the Technologies for Energy Security Act—which would



Doug Dougherty is President and CEO of the Geothermal Exchange Organization, Springfield, Ill. Email doug@geoexchange.org

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Creating the best of friends and future leaders

Seven days is all it takes for a group of 64 rural Illinois high schoolers to become best friends. It is because when you get a group of students with the same common interest, it is easy for them to relate; they all value education and leadership opportunity.

The Youth to Washington Tour is an event sponsored by the electric and telephone cooperatives. This year 1,691 students across the United States were in attendance, and since the late 1950s, it has been a life-changing event for 50,000 young adults. A very unique part of Youth Tour is Youth Day in Washington, D.C. During Youth Day all 1,691 students from 44 states meet in an assembly where they learn about cooperatives and leadership. The day is full of high spirits and new experiences as the students get to meet with students from all over the United States.

The Illinois Youth Tour delegation was also able to visit Gettysburg, the Washington National Cathedral, the U.S. Holocaust Memorial Museum, Arlington Cemetery, the Newseum, several Smithsonian Museums, the Royal Embassy of Saudi Arabia, Ford's Theater, and over nine different memorials. Each of these places is rich in history and carves a story into the developing minds of these young adults. It teaches them patriotism, American history and respect for the foundation of their country.

Another great learning experience was meeting with U.S. Senator Durbin and U.S. Representatives Mike Bost, Cheri Bustos, Danny Davis, Rodney Davis, Adam Kinzinger, Darin LaHood and John Shimkus. The students asked lots of questions and got to know these elected leaders. For some students, this experience plants the seeds of

interest in politics and learning the struggles and rewards of running our country.

On the Youth to Washington Tour, Sophia Marcolla from Adams Electric Cooperative was selected by her peers to serve on the National Rural Electric Cooperative Youth Leadership Council. The Youth Leadership Council is a year-long appointment. Sophia will represent Adams Electric and the state's cooperatives at national and state meetings and events in the year ahead.

The Youth to Washington attendees always come home with a better understanding of cooperatives, politics, history and leadership, and many new lifelong friends. For more information on the tour contact your local electric cooperative or go to www.youthtour.coop or www.facebook.com/ILYouthtoWashington. ♡





Illinois pioneers of rural electrification

John Sargent

John Sargent of Rushville represented Adams Electrical Co-operative on the AIEC board of directors from 1940 until his death in 1976, and was president of the board from 1949-51.

Sargent was an integral part of the formation of Adams Electrical in Camp Point and was an original incorporator and the first board president of Western Illinois Power Cooperative, Inc. The generation and transmission cooperative was formed to serve the ever-increasing needs to some 35,000 members of the seven electric distribution cooperatives in west central Illinois.

Representing Illinois on the National Rural Electric Cooperative Association (NRECA) board from 1952-53, Sargent was also a member of the legislative committee of the NRECA.

Known for his sound judgement and devotion to the rural electrification program, he gave innumerable hours to the program both statewide and nationally.

In celebration of the AIEC's 75th anniversary, this is eighth in a series of profiles on Illinois' rural electric pioneers.

Energy shortages possible in 2018

The Organization of MISO States (OMS) and MISO in their annual resource adequacy survey indicate that the MISO region has adequate capacity for 2017 with potential shortages in 2018 and beyond.



The assessment shows that the region should be able to meet the expected peak demand for electricity with an adequate safety margin for 2017. The survey shows that a surplus of 2.7 gigawatts (GW) is available; this surplus could be reduced to 0.9 GW if recently announced generation retirements and suspensions in southern Illinois materialize. If these retirements proceed as announced, available resources could fall below minimum required reserve margin levels as early as 2018.

“Retirements in excess of new generation are driving supply to tighten in the region” said John Bear, the CEO of MISO. “We will continue to support our state regulators and members as they take necessary actions to ensure continued resource adequacy in 2018 and beyond,” he added.

The survey also indicates certain locations within the MISO region will fall below reserve margin requirements in 2017. These areas should be able to import needed capacity from neighboring zones to meet their requirements, a regional benefit of being part of the MISO region. ♡

New co-op CEO understands energy and rural issues

The National Rural Electric Cooperative Association (NRECA) in June announced that former U.S. Rep. Jim Matheson has been selected to serve as NRECA's sixth chief executive officer.



NRECA President Mel Coleman says, “Jim will bring to the position a broad knowledge of the issues facing rural America and will be an inspirational leader for America's electric cooperatives.”

During his tenure in the U.S. House of Representatives, from 2001 to 2015, Matheson served as a member of the House Energy & Commerce Committee. The respect Matheson has on both sides of the aisle, and his ability to bridge political and policy divides to find common ground, will serve electric cooperatives very well. In addition to his extensive background in Congress and public policy, Matheson worked in the energy industry for several years.

“I am excited by the opportunity to lead NRECA and to continue to build on its remarkable record of service to its members,” Matheson said. “I am honored to be associated with this member-driven organization that has a strong reputation for quality and integrity.”

The National Rural Electric Cooperative Association represents the nation's more than 900 private, not-for-profit, consumer-owned electric cooperatives, which provide service to 42 million people in 47 states. ♡

Co-ops finding ways to integrate renewable energy

The National Rural Electric Cooperative Association (NRECA) has joined with a coalition of energy technology partners to create a tool for developing and testing what could be a critical component of the future electrical grid.

Led by Atlanta-based ProsumerGrid, Inc., the group signed a \$3-million contract with the Department of Energy's Advanced Research Projects Agency-

Energy (ARPA-E) program to develop software that will test the effectiveness of distribution system operators (DSOs). Various forms of DSOs are being considered in many states as a way to integrate and manage distributed energy sources



on the grid, including solar, wind and stored energy.

The team will develop a Distribution System Operator Simulation Studio (DSOSS) that “aims to simulate how these new control and pricing schemes would work before they are rolled out,” said David Pinney, Analytics Program Manager in NRECA's Business and Technology Strategies department.

Today no software tool exists that can simulate and test renewable energy's potential impact on the physical grid or on market operations.

If the project succeeds, integrating renewable energy into the grid could become easier, Pinney said. ☞

Voting is your right and responsibility – exercise it

Rural electric cooperatives across the United States are joining together to launch a campaign to encourage rural residents to vote and insert issues of importance to cooperatives and their members into the public discussion. “Co-ops Vote” is a nonpartisan program developed by the National Rural Electric Cooperative Association (NRECA), which represents more than 900 private, not-for-profit, consumer-owned electric cooperatives across the United States.

With 42 million members in 47 states, electric cooperatives can provide a powerful voice on national issues that have local impact.

The democratic process is ingrained into the co-op business model. Members of electric cooperatives have the

opportunity every year to vote for directors to represent them on their local cooperative board of directors, but across the country, citizens often do not exercise that right to vote when it comes to local, state and national elections.

The bipartisan effort seeks to boost voter turnout in areas served by cooperatives and the country as a whole. When residents choose not to vote, they lose the opportunity to communicate their concerns about issues that matter to them, and that's what the Co-ops Vote initiative is seeking to change. Co-op Votes is an initiative that begins at the local, grassroots level, but it can end up making rural issues a priority at the national level.

The list of eight key issues that electric cooperatives are focusing on getting elected leaders across the country to understand includes:

- ☑ Rural broadband access
- ☑ Hiring and honoring veterans
- ☑ Low-income energy assistance
- ☑ Cybersecurity
- ☑ Water regulations
- ☑ Rural health care access
- ☑ Affordable and reliable energy
- ☑ Renewable energy

Additional information about this initiative is available at the Co-ops Vote website, www.vote.coop. The website provides information about elected officials and candidates, the voter registration process, election dates and locations, and background about the eight key issues. ☞





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SOMETHING
WE TAKE
LIGHTLY.



ORCHARDS

full of memories

By Brandy Riley



The arrival of beautiful foliage, crisp evenings and sipping hot cocoa by the fire are just a few of the simple pleasures the autumn season offers. Each fall, my husband and children eagerly wait for me to announce it's time to take a daytrip to the orchard. All four of us pile into the family car and head out on a 45-minute scenic drive through the countryside. After we arrive, we anxiously stand in line to taste the sweet fresh pressed apple cider. Our fondest memories include picking apples until the baskets overflow and rumbling through the field in a tractor-pulled hayrack ride to be dropped off in a sea of pumpkins. We never leave without some cinnamon-coated apple cider donuts and, if things are really going my husband's way, we get some nut-covered caramel apples too.

For many families, a trip to harvest locally-grown fruits and vegetables at nearby orchards has become a regular rite of passage. During the fall season, Illinois orchards draw in three groups: pickers, foodies and families. They come not only to pluck a fresh-from-the-tree apple, but also for the seasonal outdoor activities and the farm-fresh home-style cooking.

Eckert's Orchards has shared its passion for creating memories with rural Illinois families for more than 100 years. It all started in 1910, and little did Alvin Eckert know that his simple roadside stand would turn into the largest pick-your-own orchard operation in the United States. The Eckert family has preserved the orchard industry for seven generations. Today, seventh generation apple growers, Chris Eckert, his wife Angie, and Chris' sister Jill Eckert-Tantillo continue to share the agritourist farming experience at the orchards located in Belleville, Millstadt and Grafton. Chris oversees the farm's retail operations, growing, and wholesale of home produce. Angie supervises both the Country Store and Garden Center, and Jill's duties include managing the orchard's marketing and food services.

Annually, Eckert's Orchards employs 500 people during its peak season to keep the business running smoothly. The Eckert family lives by their ancestor's long-established tradition to create unique family experiences and lasting memories, and they consistently aim to provide guests with quality products and friendly service within a country-like atmosphere. The Eckert's mission has

evolved over the years and for the last two generations, they have been completely committed to creating family memories. "Our family and team is passionate about providing memorable agrarian experiences at Eckert's," says Angie Eckert. It's easy to see the descendants of Michael Eckert fulfill their ancestor's mission, with over 600,000 annual visitors traveling to their three locations.





Apple and pumpkin picking memories

Perhaps nothing says fall more than Eckert's apple and pumpkin picking season. The family grows 15 apple varieties. The orchard's apple picking season begins in late August and continues through mid-October, with each variety following its own ripening schedule. Jonagold Apples ripen in early to mid-September, while Granny Smith apples keep apple lovers waiting until mid to late October. Eckert's loves apple-picking season because it yields so many family memories. "Our favorite memory is to witness a child's first experience picking. It doesn't matter what they pick, it is exciting to see their face light up for the first time on the farm" says Angie Eckert.

But before your family starts picking, follow Eckert's advice on how to select the perfect apple. Pickers should choose apples that are free of bruising, fragrant and firm to the touch. If want to preserve your harvest, store apples by themselves in a refrigerated crisper, if not eaten within one to two days. If you're planning on freezing them, Eckert's recommends slicing each apple, placing them onto cookie sheets until frozen and then storing them a plastic storage bag. If you're looking for the perfect kid apple, try the Pixie Crunch apple; it is excellent because of its size and fine, crisp texture. The most popular type of apple is the Golden Delicious which is great for baking, cooking and snacking.

Pumpkins go hand in hand with fall holidays, so sharing a beautiful fall day in Eckert's pumpkin field is a time-honored tradition. Traveling to the pumpkin patch on a hayrack ride is a novel experience for most families, especially children. As families traipse through the pumpkin patch, they'll discover pumpkins in all shapes and sizes. Eckert's has over 15 varieties to handpick, from small spookies to

Eckert's Farms

Families near Jersey County can take a jaunt to Eckert's charming, rustic Grafton Farm located just outside of the Mississippi River bluff. This seasonal farm opens in July, closes at the end of October, and features some of the most scenic apple-picking in southern Illinois. Eckert's Grafton Farm is home to 150 acres for apple picking, including Honeycrisp and Granny Smith. The Grafton Farm offers other seasonal items such as apple butter, Amish salsas, jams, preserves and apple cider. During the farm's fall season, music lovers can sit back, relax and enjoy the smooth sounds of live, acoustic music playing each weekend. Festivals and kid's activities take place in September and October.

There's still more to see at Eckert's 250-acre seasonal admission farm located in Millstadt. From the second week in September through the end of October, families will be entertained for hours with memory-making activities, from traipsing through the farm's big and little corn maze to sliding down the 70-foot Mineshaft underground slide. For more thrill seeking adventures, families can take a cruise on the haunted hayrack ride or leap onto the jumping pillow. For moderate activities, kids of all ages

will enjoy a true petting farm experience allowing up-close hands-on animal activities. Children can feed a variety of goats, large exotic animals and parakeets. If live entertainment is your preference, sit near the Millstadt stage to observe the Jack-O-Lobber Show, Billy Bob's Pig Races and the Farmtastic Magic performances, or gather around the outdoor fire pits and pull out marshmallow sticks to make the ever-classic fall treat - s'mores.

Eckert's Belleville Year-Round Farm has been transformed into a tradition for young and old alike. As the hub of the Eckert family business, this farm is known for their pick-your-own crops, 300-seat country-style restaurant and the general store's unique specialty items. Whether you're a beginner or experienced family of gardeners, Eckert's gardening center is the perfect destination to select plants for landscaping, purchase fall mums or cold-tolerant pansies. Families can share in the memory of watching the plants take root and enjoy their foliage for many weeks to come. Besides the fall colors that surround the farm, children will flashback to galloping on a pony or riding the gentle humpback camel, and the photos will last forever.

giant monsters. “Lots of parents have a rule that their child must be able to carry their own pumpkin. It is fun to see what they pick out,” states Jill Tantillo. “Some kids pick the biggest pumpkin they can get their arms around and have to waddle to get it in from the field.”

The homegrown pumpkins are perfect for carving, decorating and eating. Typically, the pumpkin season begins in late September and ends near Halloween. Eckert’s pumpkin patch offers families a chance to make memories and teaches young children that produce does not just magically appear on supermarket shelves.

Apple-pumpkin picking is a main attraction at Eckert’s Orchards, but not the only reason to visit. Visit Eckert Orchards website, www.eckert.com to keep up-to-date on what’s happening

around their farms. Check out their crop update page on crop availability for purchase.

Whether you’re a picker, foodie or looking for family friendly activities, take a daytrip to one of Eckert’s three locations to experience one of the most popular agritourist destinations in Southern Illinois.

To find a local pick-your-own orchard, visit:

<http://www.orangepippin.com/orchards/united-states/illinois>

<https://extension.illinois.edu/apples/appleorchards.cfm>

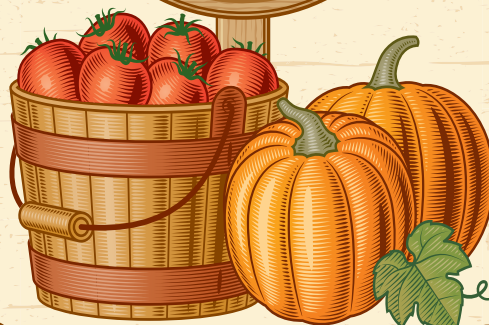
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Most may think of Champaign as home of the famous “Fighting Illini,” but did you know the town is famous for its award winning apple cider too? Curtis Orchard and Pumpkin Patch, located southwest of Champaign is a fun attraction for the whole family. The orchard allows you to hand pick an apple for a snack that is fat, cholesterol and sodium free. With over 29 different varieties of apples in all shades of reds, greens, and yellows, everyone can find their preferred taste. The top selling apple is the Honey Crisp.

In 1977, Paul and Joyce Curtis planted their first trees, never imagining the farm would grow so quickly into the 7,000 tree orchard it is today. When visiting Curtis Orchard, you will not only find apples and cider, but also pumpkins, gourds, squash and Indian corn too. The Country Store on location sells other produce of the season, such as local honey,



apple butter/jams/jellies, homemade pasta, unique kid’s toys, and has been selling the much-loved apple donuts since 1988.

This Wizard of Oz-themed orchard offers excitement for the children too. Just follow the yellow brick road to find activities such as the “Wicked Witch Tennis Ball Shoot,” miniature golf, playground, corn maze, tractor ride, and even a giant rocking chair. This year a new attraction will be opening called the “Emerald City Rope Maze.”

Curtis Orchard and Pumpkin Patch is also home of the “Flying Monkey Café.”

“We do comfort food really well,” Aaron Graham, grandson of founder Paul Curtis says. Customer’s favorites are the Italian beef and pulled pork sandwiches.

Support a local business, stop by and bring the whole family, located at 3902 S. Duncan Rd., Champaign, IL 61822. Curtis Orchard opens July 20 and the Pumpkin Patch opens September 19. The Flying Monkey Café opens August 27. For more information, call 217-359-5565.

How to survive a car accident

The first rule of accident survival is don't have one. At the very least, know how to minimize the chances of one and, if you have one, know how to survive. Safety Education Officer Trooper Sean T. Ramsey has taught many of the state's electric cooperative employees. Ramsey says there are four primary reasons for fatal vehicle accidents: high speed, drinking and driving, distracted driving (cell phones, etc.) and not wearing a seat belt.

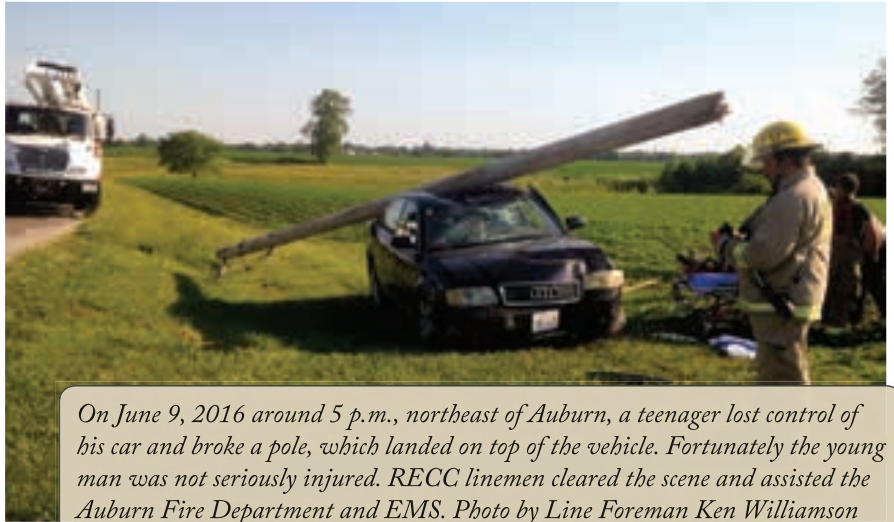
Even if you survive an accident, because you and the other occupants in your car are wearing seat belts, there are dangers to be aware of if your accident involves a downed power line.

A car accident can happen quickly, yet the final seconds may seem to be in slow motion as the vehicle and its passengers jolt upon contact. Such an accident can inflict serious injury and damage, and when the car wreck involves power poles, there is an added danger.

After any wreck, it is natural for people to want to get out of the car to assess damage to themselves and the vehicle. However, when the wreck involves power poles and lines, that is the wrong thing to do.

In February 2016, a vehicle crashed with a utility pole in Lawrence, Kan. Fortunately, the *Lawrence Journal-World* reported law enforcement officials told the driver to stay in the car for his safety. The power pole had snapped and lines were in contact with the car and with a nearby wooden fence. In fact, the fence caught fire from the incident. Once the utility arrived on the accident scene and cut the power, the driver was able to safely exit the vehicle.

According to the Insurance Institute for Highway Safety, approximately 20 percent of car accident deaths result from a vehicle making contact with a fixed object such as a power pole. The U.S. Department of Transportation



On June 9, 2016 around 5 p.m., northeast of Auburn, a teenager lost control of his car and broke a pole, which landed on top of the vehicle. Fortunately the young man was not seriously injured. RECC linemen cleared the scene and assisted the Auburn Fire Department and EMS. Photo by Line Foreman Ken Williamson

reports that, on average, auto accidents with power poles result in 1,000 deaths each year.

Should you be involved in an automobile accident with a power pole, Safe Electricity provides the following safety information:

- Stay in the car. Call 911 to have the utility notified.
- Do not leave the vehicle until utility professionals have de-energized the line and they advise you that it is safe to do so.
- If you must exit the vehicle because it is on fire, jump clear of it with your feet together and without touching the vehicle and ground at the same time. Keeping your feet together, “bunny hop” to safety. Doing this will ensure that you will not have different strengths of electric current running from one foot to another.
- Be aware that, after an accident with a pole, wires can fall at any time.
- Downed lines can sometimes show they are live by arcing and sparking with electricity, but this is not always the case. Treat all downed wires as though they are energized.
- Remember, most power lines are not insulated. The coating on the

lines is for weather proofing and will not offer any protection from the electrical current.

- The tires of the vehicle do not insulate it from electrical dangers. Follow the above safety precautions, even if the car has rolled and is upside down or on its side. The vehicle is the path to ground for the electrical current. So while you remain in the car, you are safe. If you step out of the car, you are in danger of becoming the path to ground.

Also be cautious if you witness an accident involving a vehicle and downed lines. Stay back, and warn others to stay away. Make sure the occupants of the car stay inside the vehicle until the utility has arrived to de-energize the lines.

For more information on electrical safety, visit SafeElectricity.org. ⚡



Molly Hall is Director of Safe Electricity. E-mail molly-hall@SafeElectricity.org. Safe Electricity is a public awareness program of the Energy Education Council. www.EnergyEdCouncil.org



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Is a tomato a fruit or a vegetable?

This specific column serves multiple purposes – it will be informative, it allows me the opportunity to talk about a subject that a childhood friend asked about and I thought I had done, and it should be educational to educators who keep messing up the issue. And for that, it should be therapeutic on this end.

It all begins with this question: Is a tomato a fruit or a vegetable?

The answer is “yes!” and “it depends.”

If we call a tomato a fruit, then there is no such thing as a vegetable. Nothing at all. Zip. Zilch. No vegetables.

Taking this approach first, botanically (and that is the key word), the part of the tomato we eat is a fruit. Taking it to the nth botanical degree, it's a berry. A botanical “berry” is a fleshy fruit, which is really the ripened



banana. A pepper is simply a fruit, the ripened fleshy ovary.

So, what are the so-called vegetables if they aren't vegetables?

Well, carrots, beets and radishes are roots, lettuce and spinach are leaves, as are Brussels sprouts, cabbage and kale, and cauliflower and broccoli are flower buds. Potatoes are underground stems, though sweet potatoes are roots. Kohlrabi looks like a root, but is a swollen above-ground stem. Asparagus is a stem and so is rhubarb.

Peas and shelled beans are seeds, though they go by the technical name of caryopsis. Corn is a kernel. The ear or the pod with the pea or bean inside, though, is a fruit.

Apples, peaches, plums, cherries, etc. are also fruit, given specific names such as pomes or drupes (stone fruits) and aggregates include strawberries and the accessory berry of pineapples. My favorite is the fig's mature syconium.

Whew! Too much?

The issue is the mixing of terms. Botany is a science and is almost black and white. The word “vegetable” botanically means the plant kingdom, but is really used as an adjective in front of other words and not as a noun.

Horticulturally, though, we lump plants into categories of fruits and vegetables, just like annuals and perennials, and trees and shrubs. Those are not always black and white. It's not a science.

Horticulturally, we plant most vegetables annually and are usually eaten during the main course of the meal and not for dessert, such as tomato cake or a radish cobbler. Fruits tend to be perennial and grown on woody plants such as brambles, shrubs

and trees, and often are used mainly for desserts, though sometimes in salads.

There are perennial vegetables such as asparagus and rhubarb, with the latter used in desserts more than during the main course of the meal. We make pies out of pumpkins and squash, and fruit salads with watermelons and cantaloupes. Strawberries, while perennial, really aren't grown on a woody plant. See? Not black and white.

Of course, the U.S. government got into the act clear back in the 1890s, when the U.S. Supreme Court declared, for tariff purposes, the tomato was a vegetable, but recognized it botanically as a fruit. It was a well-thought out concise three-page declaration.

Now, it's your choice, but remember to be consistent across the board. Is the tomato a fruit or a vegetable? 🤔

If we call a tomato a fruit, then there is no such thing as a vegetable.

ovary of a plant (which is what a fruit is), with many seeds on the inside. Of course, with that botanical definition of a berry, many of our so-called berries such as strawberries, blackberries and raspberries really aren't berries.

Many of our garden vegetables are actually fruits/berries: eggplant, cucumbers, squash, pumpkins, watermelons (though some of the specialized berries are called pep). Grapes are berries. Technically, so is a



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



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The farmer's market is one of my favorite places during the summer. The brightly colored fruits and vegetables seem to be calling my name as I walk past each booth. And, who can resist a juicy peach, freshly picked sweet corn or a first-of-the-season cantaloupe or watermelon?

This month, Finest Cooking is featuring fresh fruits and vegetables, so head out to your local farmer's market and support your area growers.

Strawberry Peach Chicken Salad ^

- | | |
|---|---------------------------|
| 4 c. Bibb lettuce leaves or salad greens | 2 green onions, chopped |
| 1 lb. cooked boneless, skinless chicken breasts | Dressing: |
| 1 c. sliced strawberries | 1 c. plain low-fat yogurt |
| 1 med. peach, peeled and sliced | 1 c. sliced strawberries |
| | 1 T. sugar |
| | 2 T. red wine vinegar |

Arrange lettuce on four plates. Arrange chicken (cut into 1/2-inch strips), strawberries and peach on lettuce. Sprinkle with onions. For dressing combine all ingredients in a blender. Cover and blend on high speed for 15 seconds or until smooth. Serve salads with dressing – can drizzle on top or serve on the side.

Fresh Peach Cobbler

- | | |
|-----------------------------|-------------------------------|
| 6 c. peeled, sliced peaches | 1 c. milk |
| 2-1/4 c. sugar | 3/4 c. melted unsalted butter |
| 2-1/4 c. flour | 1 T. sugar |
| 1 T. baking powder | 1/4 t. ground nutmeg |
| 1 t. salt | 1/4 t. cinnamon |

Preheat oven to 350 degrees. Mix together peaches, 1-1/4 c. sugar and 1/4 c. flour and pour into 9x13" baking dish. Combine 2 c. flour, 1 c. sugar, baking powder and salt. With a mixer, add the milk and melted butter and beat until smooth. Spoon over the peaches and spread to edge of dish. Sprinkle remaining sugar, nutmeg and cinnamon on top. Bake about one hour until crust is brown and crisp on the outside and cooked all the way through. Let cool at least 10 minutes before serving. Great with ice cream.

^ **Herb Marinated Chuck Steak**

- | | |
|--|------------------------|
| 1 lb. boneless chuck steak, 1-inch thick | 1 T. oil |
| 1/4 c. finely chopped onion | 2 t. Dijon mustard |
| 2 T. chopped fresh parsley | 1 clove garlic, minced |
| 2 T. white vinegar | 1/2 t. dried thyme |

Mix all ingredients and spread over meat. Place in a plastic bag, being sure that marinade completely covers meat. Let marinate at least 6-8 hours or overnight. Grill 16-18 minutes.

Visit www.icl.coop to see more Illinois Country Living recipes.

Fresh Corn Salad >

2 c. corn, fresh or frozen, thawed
3/4 c. cucumber, seeded and diced
1/4 c. diced red onion
1-1/2 c. cherry tomatoes, halved
2 green onions, sliced
3 T. sour cream
1/4 c. red wine vinegar
1/2 c. oil
2 T. minced fresh basil
Salt and pepper

Combine corn, cucumber, onions, and tomatoes in salad bowl. In small bowl, combine sour cream, vinegar, oil, basil and salt and pepper. Add to vegetables and gently toss to coat. Chill and serve.



< Grilled Peaches

4 large freestone peaches, halved and pitted
2 T. light brown sugar
1/4 t. cinnamon
2 T. unsalted butter, melted

Heat grill to medium. Combine sugar and cinnamon. Brush side of peaches lightly with melted butter. Oil grill and place peaches cut side down on grill for 3-4 minutes until grill marks appear. Brush bottoms with butter and turn peaches over. Sprinkle cinnamon-sugar mix over peaches, cover grill and cook 3-6 minutes until sugar melts and caramelizes, and it's easily pierced with a sharp knife. Serve immediately with ice cream or makes a great side dish with ham or pork chops.

Triple Melon Salad >

1 c. water
3/4 c. sugar
3 T. lime juice
1-1/2 t. chopped fresh mint
Pinch salt
5 c. cubed watermelon
3 c. cubed cantaloupe
3 c. cubed honeydew
2 c. peach slices
1 c. fresh blueberries

Mix first five ingredients in a small saucepan and bring to a boil. Boil 2 minutes; remove from heat. Cover and cool. Combine fruit in a large bowl; add syrup and stir to coat. Cover and chill for at least 2 hours, stirring occasionally. Drain. Put salad in a large glass bowl or in a carved out watermelon.



Recipes prepared, tasted and photographed by Valerie Cheatham. For more recipes and photos go to www.idl.coop. Questions? Email finestcooking@aiec.coop.



How to build a comfortable, efficient new home

If you are going to build a new home, here are some bullet points to remember that will make your new home comfortable, energy efficient, safe and healthy for your family for years to come. Be prepared, this all takes careful planning and attention to detail from beginning to end.

The three main areas you should be concerned with in order are **building shell, mechanicals and ventilation**. The building shell should always be your first priority. The heating and cooling systems must be sized to the heat loss and heat gain of the shell. The heating system only runs long enough to replace the amount of heat that is lost from the building shell. Ventilation plays a huge part in maintaining good indoor air quality.

Building shell

Home design - design a home that fits your family's needs. The bigger the home the more it will cost to build, heat, cool and maintain. Less is more!

Attic insulation - have your builder frame your attic with a "Raised Heel Truss System." It allows for full depth insulation to be installed over the exterior walls in the attic. This is important! Before installing insulation in the attic, air seal all penetrations that come up into the attic from the house (plumbing, electrical, etc.), seal all interior and exterior wall top plates with two-part spray foam, install wind-blocks and insulation chutes in the eaves, and blow in a minimum of R50 cellulose insulation, NOT fiberglass.

Exterior walls - the 2015 Energy Code requires exterior walls be insulated to R20 (usually six-inch walls) or 13+5. This insulation method calls for R13 cavity insulation and R5 foam board applied to



the exterior of four-inch walls.

Basements - insulate your basement walls to an R10. It is best to apply a foam board or spray applied foam directly to the walls to prevent condensation from forming on the cold masonry walls. Apply two-part spray foam to the rim and band joists to air seal and insulate.

Windows - design fewer and smaller windows into your home - less is more. Casement windows are the most efficient type because they have a continuous gasket all the way around the window for an air-tight seal. Use windows with a U-factor of .32 or lower. U-factor is the amount of heat loss through a window.

Blower door test - as required by Illinois law, have your home blower door tested to verify the air leakage rate is less than the required five air changes per hour.

Mechanicals

Heating - a geothermal heat pump is your first choice for heating and cooling. An air source heat pump is a good second choice, especially if natural gas is not available. If you will be installing a gas furnace, choose a multi-stage 95 percent minimum efficient model with a modulating blower. Upgrade the air filter from a one-inch thick filter to a four- or five-inch filter. Do not install a humidifier on the furnace. It will not be needed.

Cooling - the most important


part of air conditioning is dehumidification in the summertime. A bigger unit is not better. Make sure the system is sized correctly. It should be within 10 percent of the load of the home. If the system is too big, it will short cycle and be unable to properly dehumidify your home.

Ducts - all ducts must be sealed. Ducts located in unconditioned spaces should be sealed and insulated to an R8 minimum. If there are any ducts outside of the home (attic or crawlspace) the energy code requires a duct pressure test to be performed. All duct leakage to the outside of the home is 100 percent waste.

Water heater - install a heat pump water heater or, if gas a power-vented model, to eliminate any carbon monoxide poisoning potential from heating water.

Ventilation

Bathrooms - must have one exhaust fan that can move a minimum of 50 cfm out of the bathroom to the outside, not into the attic. Measure the air flow through all of the exhaust fans after the installation is complete.

Kitchen - duct your range hood outside to remove smells, heat and combustion by-products from cooking. Did you know a gas oven can emit more carbon monoxide into your home than your gas water heater and furnace combined? 



Have questions?
Brian Kumer can be contacted at brian_kumer@yahoo.com.



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*Some of your ducts may be in hard-to-reach places; a professional trained in HVAC and ductwork can help.
Photo Credit: Weatherization Assistance Program*



Is your ductwork delivering?

By Pat Keegan and Amy Wheelless

Dear Pat: I recently moved from a home with wall-mounted heaters to one with central heat and air, and a duct system. How can I ensure my ducts are working efficiently? - Carla

Dear Carla: Homes with central forced-air heating and cooling systems, like furnaces, central air conditioners and heat pumps, use air ducts to deliver the conditioned (heated or cooled) air through the home. Ducts are often concealed in walls or in areas of your home you don't go to often, like a crawlspace, so many people do not immediately think of them as an area to save energy.

You may have received flyers in the mail with offers for air-duct cleaning and claims that doing so will improve the air quality and efficiency of your home. However, duct cleaning may not always be necessary for air quality, and there is no indication that just cleaning your air ducts will improve your system's efficiency.

Duct cleaning may be necessary if:

- There is visible mold in your duct system or a recent flood that caused mold or mildew in your home.
- There is something in the ductwork impeding airflow, like debris or an infestation. Major renovations or new construction can put construction debris into the duct system, so post-construction is an ideal time to consider duct cleaning.
- Your heating registers are releasing dust into the air.
- Home residents have allergies or asthma problems that have not been alleviated by other changes.

While duct cleaning may not always be necessary, regularly changing your air filters can help your heating and cooling system work more efficiently. How often you change them depends on how much your system runs, whether you have pets and whether you periodically vacuum your air filters. For the average home, air filters should be changed four to six times a year.

Though duct cleaning may not do much for the efficiency of your systems, duct sealing is important for saving energy and lowering utility costs, particularly if your ducts are in unconditioned spaces, like a crawlspace or an uninsulated attic.



Regularly vacuuming your air filters can extend their life and help your heating system work more efficiently.

Photo Credit: Janwikifoto

In a typical home, 20 to 30 percent of heated or cooled air escapes through unsealed gaps and holes in the duct system, which can cost you money and make your home less comfortable. You wouldn't put up with a leaking water pipe, so why should you put up with a leaking air duct?

The best way to assess the condition of your home's ductwork is to have it tested by a professional home energy auditor who can conduct a Duct Blaster test. If you can easily access your ducts, you might get by with a visual inspection, which will identify the larger holes and disconnections.

Where ducts meet or where they connect to a heating register are common places to find leaks. A professional trained in ductwork can help you identify and fix the gaps and leaks you may not be able to see. Talk to your local electric co-op to find the right person for the job.

Once gaps and leaks have been identified, you can work to seal your ducts. Small duct leaks can be sealed with mastic, a type of caulk. Larger

“You wouldn't put up with a leaking water pipe, so why should you put up with a leaking air duct?”

duct leaks and disconnections may require additional lengths of duct, mechanical fasteners or special heat-resistant tape. Do not use duct tape—ironically, it is not designed to adhere well to ducts.

Finally, if you have ducts in unconditioned areas, like an attic or crawlspace, your ducts could be wasting energy by heating or cooling the surrounding air, even if there are no leaks in the ductwork. Insulation around the ducts can help reduce this energy loss. Make sure the ducts are properly insulated as well as sealed in unconditioned space, such as in the attic or basement.

This column was co-written by Pat Keegan and Amy Wheelless of Collaborative Efficiency. For more information on how to test and seal your ductwork, please visit: www.collaborativeefficiency.com/energytips.



Mastic can be used to seal small gaps and leaks in your ductwork.



A Duct Blaster test can show you how leaky your ductwork is.

Photo Credit: Weatherization Assistance Program

Photo Credit: Kelb55



Drones among us

You wake up in the morning, grab your cup of coffee, and dash out the door. While walking to your vehicle, you're numb to the sound of the buzzing propellers coming from the delivery drone that just dropped off a package at your neighbor's house. Is this our future?

I'd like to take a moment and look at some of the advantages that drones, more appropriately called Unmanned Aerial Vehicles (UAV), could offer in the future. I realize there are many concerns regarding the use of this technology, and some of them very legitimate, that will need to be addressed. For now, let's look at how these new flying mechanisms might make this world a better place to live.

There should be a clear distinction between the large military type UAVs, used to carry out long-range unmanned missions, and the smaller (less than 50 lbs.) UAVs civilians are using mostly for aerial photography. I am referring to the smaller UAV that can typically be found at the local hobby shop, has four motors with propellers, and some type of camera attached. This type is becoming very popular and you have probably seen footage or pictures that have been taken "high in the sky" by one of them. The footage is visually appealing because it gives us a new perspective. The result is smooth aerial footage, with great detail, that provides a bird's eye view. The imagery is very similar to what you would find in the cinema but taken by an average person using off-the-shelf equipment that can be purchased for under \$1,000.

First responders are already looking at ways to incorporate UAVs into reconnaissance and search and rescue teams, and some are already using them. Hurricane Katrina was one of the first natural disasters where UAVs were used, contributing to policy changes that affect how they can be deployed in disaster situations. UAVs are especially advantageous in disasters due to their capability to provide better vantage points and higher resolution images than satellites or manned aircraft. They can be deployed quickly when the need arises, which can be a huge advantage to first responders.

In July 2015, firefighters in Maine used a consumer grade UAV to deliver a life jacket to a teenager and a younger boy that were stranded on a rock in the middle of the high current on the Androscoggin River. Rescue crews had tried to brave the current but were overcome and had to return to shore. In Canada, a man that was involved in a rollover accident could not be found by conventional means. Ground search crews and an air ambulance were unsuccessful. Shortly after midnight, amid near freezing temperatures, a UAV was deployed. Using Infrared imaging (FLIR) a heat signature was picked up nearly two miles from the crash site. The 25-year old driver was found curled in a ball next to a snow bank at the base of a tree.

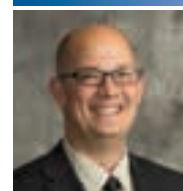
I believe as this technology progresses, we will start to see UAVs used more often as a preventative lifesaving/safety technology. Most of you are

aware of the dangers our linemen face every day, working hard to ensure the lights stay on, and in the event of an outage, work tirelessly to provide prompt restoration of service. They put their life on the line working under very dangerous circumstances. Some utilities are already using UAVs for tasks such as power line and insulator inspection, pole inspections, forestry assessments, and damage assessments, eliminating the need to dispatch a bucket truck and put themselves in harm's way. I even recall an electric co-op that used a UAV in order to pull a new power line across a flooded river, that was inaccessible by boat, in order to restore power. Needless to say this was much safer for the linemen involved, and they were able to restore power much quicker because there was no need for deploying a boat and extra crew.

It's not a matter of IF UAVs will be common among us, but WHEN. Although there are many concerns revolving around their use, one fact remains, UAVs absolutely have the capability to save lives and make some tasks safer and more efficient.

 **Comment on this column**

Visit icl.coop and click on Powered Up to respond. Your response might even be included in a future column.



Dan Gerard, CISSP, is the IT Manager for the Association of Illinois Electric Cooperatives in Springfield.

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Don't get up to your neck in septic system problems

By Duane Friend

Every homeowner that uses a septic system for wastewater treatment should clean their septic tank every one to three years. This type of maintenance must be done to remove scum and sludge that builds up in the tank. If this material builds up too much, it will plug up the drainage field lines, creating a very expensive problem.

Cleaning of the tank must be done by a licensed and bonded septic tank professional. All accumulated material, liquid and solid should be removed. This is accomplished by pumping and flushing between the tank and the pumping truck. Cleaning should take place through the manhole opening in the tank. If other openings are used, the tank will likely not be cleaned properly, and may damage baffles in the tank that prevents solids from entering the drain field. Ask to have baffles in the tank inspected to make sure they are not damaged.

When finished, the only thing remaining in the tank should be a black film on the walls and a very small amount of liquid. Bacteria in the film and liquid will aid in restarting the decomposition process. It is not necessary to add starters.

Septic systems should be cleaned more frequently in certain situations. Garbage disposals add a tremendous amount of solids into the system. Heavy water usage, such as having a water softener, doing more than 3 loads of laundry each day, or having additional people living in the house are all cases making frequent tank cleaning essential.

The drainfield is the area where wastewater from the tank is allowed to reenter the soil. Several drainage lines

let the water percolate into the soil, where bacteria finish cleaning the water.

Drainage lines can become plugged when solids are carried in along with wastewater. Overloading the tank by heavy water usage will not allow enough time for solids and scum to separate from water in the tank. Infrequent cleaning will also plug drainage lines, by allowing scum or solids to get past baffles in the tank.

Research has not shown the use of septic systems cleaners or additives to be effective, and can sometimes make things worse, as in the case of degreasers.

In recent years, aerobic wastewater systems have been installed in some home sites. These systems, while more efficient at decomposing solids, still must be periodically cleaned. No

system can decompose all material that comes into the tank.

Regular tank cleaning, conservative water use, and limiting the amount of undesirable materials going into the system can prevent many of the septic system failures that occur. It's the choice of doing a little now or paying a lot in the near future.

For more information on septic system maintenance, visit the University of Illinois Extension website called Septic Systems in Illinois. It includes information on types of systems, things to consider when buying or selling a house, and special information on surface discharging systems. The site can be found at <http://web.extension.illinois.edu/septicystems/>.

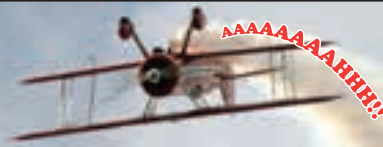


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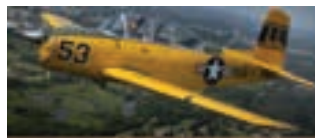
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Turning coal waste into a valuable resource

Coal generated more than half the nation's electricity as recently as 10 years ago, but that share has fallen to one-third. The decline of coal generation will continue as new environmental rules are set in place and prices for natural gas remain relatively low.

So it's curtains for coal, right? Not so fast.

The Environmental Protection Agency's Clean Power Plan still calls for more than one-fifth of our electricity to come from coal by its 2030 target date.

Even President Obama's Energy Secretary sees a future for coal. "We

are talking about a progressively lower-carbon future, but we have not abandoned coal as part of that future," Secretary Ernest Moniz told the Lexington (Kentucky) Herald-Leader in April. "Coal can play a major role in a low-carbon economy."

A role for coal is important, says Daniel Walsh, Senior Program Manager for Generation, Environment and Carbon at the National Rural Electric Cooperative Association (NRECA). Citing the huge coal supply in the U.S., Walsh sees coal as a key to energy security. "We need to use this valuable resource we have in this country."

Achieving that brighter future for coal could depend on huge improvements to a technology called carbon capture.

Carbon capture seeks to solve a top environmental complaint about coal, which is that burning it releases carbon dioxide, a greenhouse gas that has been linked to climate change.

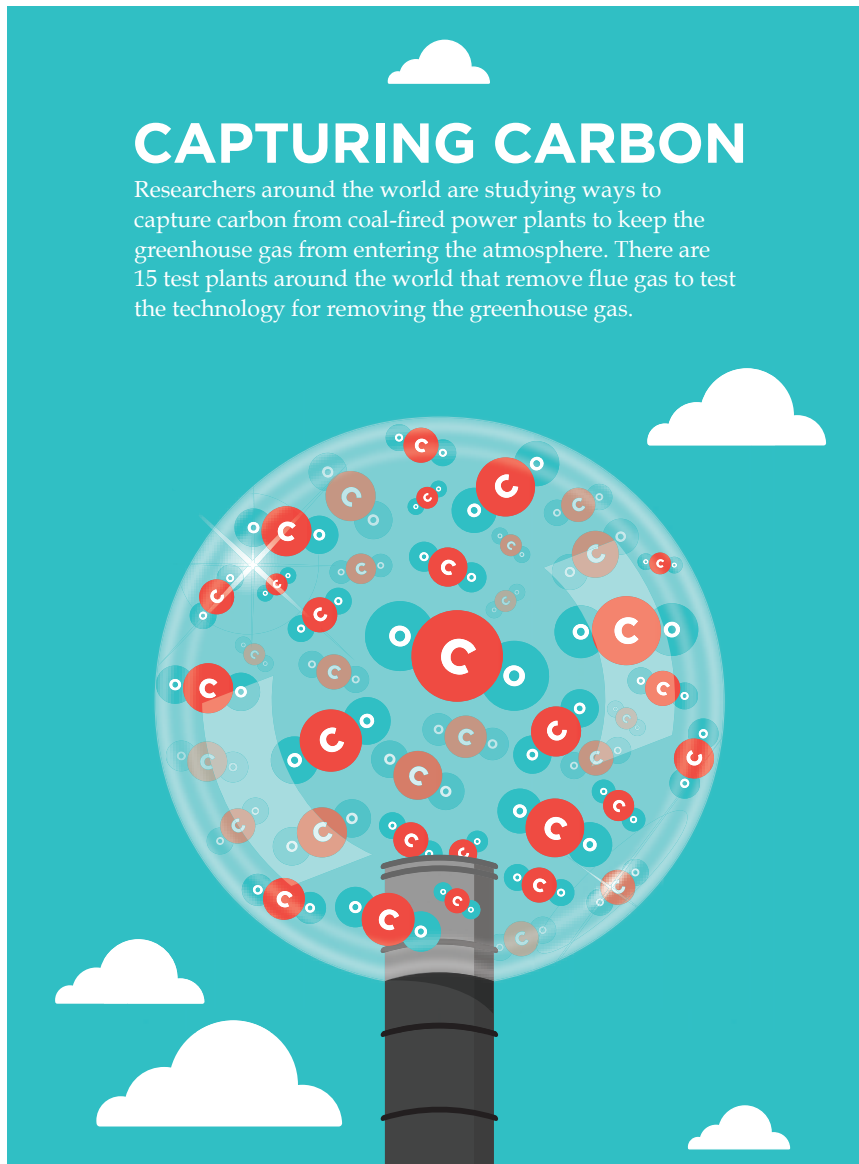
Carbon capture is still a developing technology, with 15 test plants in the world and seven more coming online by 2017, according to an international industry group. One of the main holdups to that development is that the technology is expensive to build and operate. For example, running carbon capture equipment at a power plant uses about one-third of the electricity produced by that power plant. It's a parasitic load.

As daunting and inefficient as that sounds, Moniz cites \$6 billion spent on carbon capture research by the Department of Energy as proof of his optimism. NRECA's Walsh believes in the power of researchers to make carbon capture costs competitive. "We will continue to see innovation," says Walsh. "We're going to be successful."

One reason for that sunny outlook comes from a 35-year trend of finding cleaner and more efficient ways to burn coal. Since 1970, electric utilities in the U.S. have reduced pollution regulated by more than 60 percent. Techniques have ranged from washing coal with water, to burning it at lower temperatures to release less harmful chemicals, to large and expensive flue gas desulfurization equipment, also called scrubbers.

Over the decades, those technologies improved, says Kirk Johnson, NRECA Senior Vice President for Government Relations. He says those improvements can be a model for carbon capture.

"We didn't start out with scrubbers that achieved a better-than 90 percent reduction in sulfur dioxide removal, but we ultimately got there," says Johnson. "The future has got to be in continued research."



Research and innovation are a co-op tradition. For example, electric co-ops in April had a groundbreaking for the Integrated Test Center in Wyoming. The state of Wyoming is funding \$15 million of the center, which will be built at the site of the existing Dry Fork Station, a coal plant owned by Basin Electric Cooperative. Another \$5 million of support will come from another regional co-op, Denver-based Tri-State Generation and Transmission Association, and \$1 million from NRECA.

The test center aims to advance carbon capture research by focusing on a looming question: Once you capture the carbon dioxide, what do you do with it?

For years the process has been referred to as CCS-for Carbon Capture and Storage (or Sequestration). Geologists find underground formations where the carbon dioxide can be stored safely and permanently. But an even better solution is called Carbon Capture and Utilization, or Carbon Capture and Recycling.

Recycling carbon by finding commercial uses for the carbon dioxide produces a better return on investment than burying it underground. Researchers at the test center will be able to use carbon dioxide from the Dry Fork Station to run tests. Among the first researchers, the test center will host teams competing for part of \$20 million in XPRIZES on ways to use carbon dioxide (CO₂) at power plants.

A pilot project at the University of Illinois' gas- and coal-fired Abbott Power Plant is also developing and demonstrating technology for reuse of carbon dioxide. The university's power plant has a long history of innovation, and researchers have already worked closely with Archer Daniels Midland's large-scale carbon sequestration site in Decatur, Ill. The Abbott Plant project was one of five Phase I DOE grant recipients, and has also received in-kind services for the project from the Association of Illinois Electric Cooperatives (AIEC).



The University of Illinois' Abbott Power Plant has a long history of innovation. Today the tradition continues with a project to capture CO₂ and find ways to turn the waste into an economical resource.

Kevin O'Brien, director of the Illinois Sustainable Technology Center, part of the Prairie Research Institute at the U of I, says worldwide, coal is still our most plentiful energy source and remains the most inexpensive option for power generation. "Without it, energy costs are certain to rise, impacting prices and jobs," he adds.

O'Brien says this Illinois research on recycling CO₂ has global implications and they are including experts from Brazil, China, India, Canada and Europe in the project.

Recycling is not a new concept for coal plants. Coal ash is already recycled into cement and building products. But what can you do with CO₂? O'Brien says CO₂ is already being used for oil and gas recovery, the food and beverage industry, as well as in chemical and plastics production. Other uses include metal manufacturing, construction, rubber and plastic industries and agriculture.

"Research is underway on the campus to deliver captured CO₂ to crops as a more sustainable fertilizer replacement," remarks O'Brien.

For example, some of the captured CO₂ will be used in the Soybean Free

Air Concentration Enrichment project. This project examines the impact of CO₂ levels on crop growth. Other research includes ways to use CO₂ for biofuel production.

Ultimately the DOE's goal for this research is to capture 90 percent of the carbon dioxide at a 30 percent or better reduced cost.

Steve Davis, Manager of Regulatory Compliance for the AIEC, says the Abbott Plant CO₂ utilization project makes sense to electric cooperative leaders. For example, electric cooperatives have been innovative in turning animal waste and landfill gas into a power source.

"Think back 10 years ago when landfills were all flaring methane gas," says Davis. "Wabash Valley Power Association, out of Indiana and serving three Illinois distribution cooperatives, has been a leader in capturing landfill gas and turning it into energy. Turning waste like CO₂ into a valuable resource is just common sense and the way we need to think about the future."

Source: Paul Wesslund writes on cooperative issues for NRECA.

AUGUST 6, 2016 @ 10 A.M. – 4 P.M.

Archaeology Day at Cahokia Mounds

WHERE: Cahokia Mounds State Historic Site
30 Ramey St., Collinsville, IL 62234

COST: Free

CONTACT: William R. Iseminger
618.346.5161
cahokia.mounds@sbcglobal.net, www.cahokiamounds.org

Learn about archaeology at this family-oriented event. Watch experts demonstrate ancient Indian crafts such as bow and arrow making, flintknapping, tool making, fingerweaving and spinning fibers, stone carving, plant uses, identifying animal bones from excavations and much more. There will also be a storyteller and food and drink booths.



AUGUST 14, 2016 – ALL DAY



Sunday at Sandwich Antiques Show

WHERE: Sandwich Fairgrounds
1401 Suydam Rd., Sandwich, IL 60548

COST: Adult admission \$5, Children 12 and Under FREE

CONTACT: 815.784.5983, sundayantiquessandwich@gmail.com
<http://www.sundayatsandwichantiques.com/>

Discover treasures and hard-to-find items at the historic Sandwich Fairgrounds. The Sunday at Sandwich Antiques Show is dedicated to providing a rewarding experience for exhibitors and customers alike. Food is available from several popular vendors. Come and join us and discover the many treasures and hard to find items our dealers bring to you.

AUGUST 21, 2016 @ 10 A.M. - 3 P.M.

Day at the Farm

WHERE: Dickson-Murst Farm
Dickson Rd., Montgomery, IL 60538

COST: Free

CONTACT: 630.428.4500, info@theconservationfoundation.org
<http://www.theconservationfoundation.org/page.php?PageID=4>

Visitors to Day at the Farm will see how the oats are removed from the chaff and straw with an antique threshing machine/separator. Kids can pet farm animals, play on a pedal tractor pull, and enjoy pony rides, antique cars and tractors, tractor-pulled hayrides, and food from the Country Kitchen. All this with live bluegrass music in the air. C'mon out!





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- ★ Share your favorite holiday memory and you could win \$50. *Illinois Country Living* will choose up to four essays to print in the December issue and the winning entries will each receive \$50. Writers of all ages are encouraged to participate. Each essay should be no more than 300 words in length.★
- ★ All entries must be submitted online. Visit www.icl.coop and click on the Holiday Essay Contest ad near the top of the page. **Deadline: September 15, 2016.**★

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