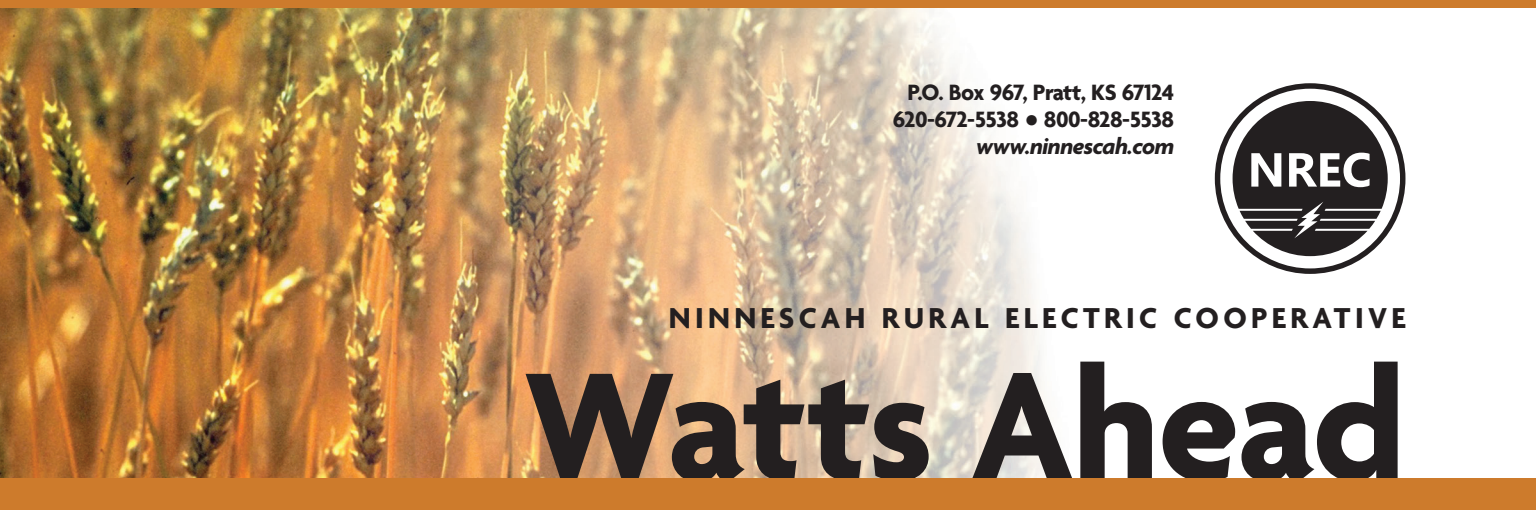

P.O. Box 967, Pratt, KS 67124
620-672-5538 • 800-828-5538
www.ninnescah.com

NINNESCAH RURAL ELECTRIC COOPERATIVE

Watts Ahead

Ninnescah Rural Electric Co-op, Inc.

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In Case of an Outage

If your electricity is off for more than a few minutes, please call 800-828-5538. The office hours are 8 a.m. to 5 p.m., Monday–Friday. After hours, calls will be answered by dispatch and forwarded to our on-call personnel.

Understanding Power Surges and Blinks

Have you ever noticed your lights blink during a thunderstorm? Or perhaps you've noticed a blinking microwave clock when you arrive home. When this happens, you've likely experienced a brief disruption to your electric service, which could result from a power surge or blink. While the symptoms of surges and blinks can appear similar, what's happening behind the scenes can be quite different.

What's a power surge?

Power surges are brief overvoltage spikes or disturbances of a power waveform that can damage, degrade or destroy electronic equipment within your home or business. Most electronics are designed to handle small variations in voltage; however, power surges can reach amplitudes of tens of thousands of volts — this can be extremely damaging to your electronic equipment.

Surges can be caused by internal sources, like HVAC systems with variable frequency drives, or external sources, like lightning and damage to power lines and transformers.

Ninnescah Electric encourages all members to install surge protective devices (such as surge protector power strips) to safeguard your sensitive electronics. If you're experiencing frequent surges in your home or business and you believe the cause is internal, contact a qualified electrician to inspect your electrical system.

What's a power blink?

Power blinks are also brief service interruptions, but they're typically caused by a fault (short circuit) on a power line or a protective device that's working in reaction to the fault. Faults can occur through a variety of instances, like squirrels, birds or other small animals contacting an energized power line,

Continued on page 16B ▶

ENERGY EFFICIENCY Tip of the Month

When shopping for new lightbulbs, know the difference between lumens and watts. Lumens measure the amount of light produced by the bulb, while watts measure energy consumption. Energy-saving LEDs come in a variety of colors and brightness levels and last 15-25 times longer than incandescent bulbs. **SOURCE: ENERGY.GOV**

Ninnescah Annual Meeting Highlights

Ninnescah held its 83rd annual meeting on Tuesday, June 8, 2021, at the Pratt Municipal Building. Members enjoyed a wonderful meal served by Fence Post of Harper.

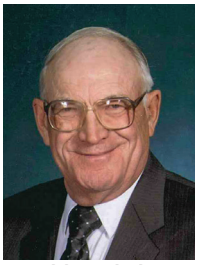
Special guests in attendance were Suzanne Lane, executive vice president & CEO of Kansas Electric Power Cooperative, Inc., and Leslie Kaufman, vice president of government relations & legal counsel of Kansas Electric Cooperatives, Inc.

Congratulations to the winner of the annual meeting cryptogram, **ELLEN PETERS,** who received the prize of a $50 credit on her electric bill. In the kid's prize drawings, **ASHLEY BOWMAN** won a Snap Circuits Junior Kit and **JOEY THIMESCH** won the Double Twelve Dominoes. A drawing for door prizes was held at the conclusion of the meeting.

Board of Trustees Election Results

Thank you for sending in your ballots for the 2021 board of trustees election. All trustees were re-elected for three-year terms. Results were announced at our annual meeting and are as follows: **MICHAEL E CHRISTIE**, Stafford; **RONALD R SCHULTZ**, Haviland; and **BRUCE E WARREN**, Attica.


Michael E Christie


Ronald R Schultz


Bruce E Warren

Bottom left: Ninnescah Board of Trustees members visit during the annual meeting.

Top right: Trustee Bruce Warren delivers a prize to a member.

Bottom right: Members gather together to enjoy fellowship at the annual meeting.

Understanding Power Surges and Blinks *Continued from page 16A* ▶

tree branches touching a power line, or lightning and other similar events. In fact, when it comes to power disruptions caused by critters, squirrels reign supreme. In 2019 alone, squirrels were responsible for more than 1,200 outages.

Any of the events noted above can cause your power to blink, but you may also experience a brief interruption when protective devices that act like circuit breakers are working to detect the fault. Believe it or not, these brief power blinks caused by protective devices are good because that means the equipment is working as it should to prevent a prolonged outage.

Regardless of the cause, Ninnescah Electric crews will be on their way to inspect the damage and make necessary repairs after a power outage. And you can help too! Any time you experience repeated disruptions to your electric service, please let us know by calling 800-828-5538.

Energy Efficient Irrigation Strategies

Agriculture is the backbone of our country, and keeping farmland well-irrigated is crucial for almost any agricultural producer. Farm irrigation methods or technologies can make a huge difference when it comes to maximizing productivity while minimizing costs.

Energy efficient irrigation methods help farmers curtail unnecessary water use while growing the same produce, reducing their operating costs and increasing overall productivity. Above all, when choosing between different irrigation methods and technologies, the most important aspects to consider are the overall cost, return on investment, convenience and minimization of risks.

One of the easiest ways to maximize energy efficiency, as many farmers have already done, is to use electric motors in place of any old, inefficient diesel irrigation motors. Typically, electric motors are about 90% efficient, while diesel motors have much lower efficiencies between 30% and 40%. This means cost savings in the long run for farmers. Electric motors also have lower maintenance needs and can make use of a variable frequency drive (VFD) irrigation system which helps to further reduce costs.

VFD systems allows farmers to pump water at different rates, which maximizes irrigation throughout the day. A VFD system can control the speed of the electric motor because it controls the electric power frequency supplied to the motor. Since there are many benefits from using electric irrigation motors, the majority of U.S. farmers have switched their diesel motors to electric ones, although pairing the motor with a VFD system is still a relatively new agricultural trend.

Irrigation efficiency is not a one-time deal. After several years, the efficiency of irrigation pumps tends to decline. After five years, irrigation pumps are typically evaluated for performance efficiency. The evaluation can help inform decisions on the most cost-effective solution, whether making improvements to the existing pump or replacing it entirely. Irrigation pump tests usually assess the pump's discharge pressure, lift, water flow and power input. Regular testing of irrigation pumps can help to ensure the pumps are working as efficiently as possible. Upgrading irrigation hardware can also lead to more efficient irrigation system performance. Replacing leaky sprinklers, for example, can help save a significant amount of water. Maintaining the overall efficiency of irrigation systems over time helps to reduce water use and save energy.

There are many new agricultural technologies that are part of the "precision agriculture" industry, including autonomous tractors, crop-monitoring drones and robotic milking or weeding machines. Beyond existing irrigation technologies, Wi-Fi-connected crops is one type of precision agriculture irrigation technology. After placing Wi-Fi-connected sensors throughout a crop field, farmers can monitor the conditions by simply using their smartphones or computers. Data on light, humidity, temperature and moisture are captured by the sensors. That data is automatically sent to a server to be analyzed, which is then sent to a farmer's smartphone app. Using Wi-Fi-connected crops also allows farmers to remotely set automatic timers for their watering systems. With Wi-Fi-connected crops, there are several factors to consider, such as cost, range, bandwidth and power. One constraint of using Wi-Fi-connected crops is that the sensor range can be limited, which makes the technology only feasible for smaller farms. There are other network connectivity platforms that could be applied to irrigation management, such as cellular connection, satellites, LoRa and Sigfox, but Wi-Fi is by far the most commonly used.

As technology continues to improve, there will be new opportunities to support the agricultural sector. Replacing technology that uses on-site fossil fuels, such as propane and gasoline, with technology powered by electricity will help improve energy efficiency and reduce local pollution.

Kansas' electric cooperatives are proud to support their agricultural members and will continue to help them determine opportunities to improve and meet their energy efficiency goals.

Help keep our linemen safe and remember to share the road. Move over when it is safe to do so and slowdown in designated work zones. Driving too fast or not moving over can endanger workers on the ground and lineworkers elevated in bucket trucks by causing the bucket to move or sway.

Proper Rest, Using '4A' Method Can Improve Harvest Safety

Farming requires long days in the field and little rest. The pressure to harvest as much as possible, combined with fatigue and looming deadlines, increases the risk of injury. In fact, most injuries occur during the spring and fall when stress and fatigue are common among farmers.

The safety and health of workers, including making time for sleep, should be a priority when considering a farm's productivity, according to Josie Rudolphi, University of Illinois Extension associate research scientist. "Rushing and cutting corners can lead to injury, which no one has time for, especially during the harvest," Rudolphi says.

Rudolphi grew up on a farm and understands the pressures of harvest season. She says that getting proper rest can make a huge difference in staying safe, but during the time crunch of harvest season, farmers sacrifice sleep to work late into the night.

"Sleep deficiency has been associated with increased injury, reduced reaction time, and reduced concentration," Rudolphi says. "All of which could impact health and safety, as well as productivity."

The demands of harvest are stressful, and a lack of sleep can intensify that and lead to errors in the fields or even on the roads.

To improve sleep, Rudolphi advises farmers to go to bed and wake up at regular times when possible. They can use rainy days to catch up on sleep.

Other sleep health tips include:

- Create a bedroom environment that encourages sleep; keep it quiet, dark and cool.
- Limit electronic device use.
- Avoid large meals, caffeine and alcohol before bedtime.

In addition to improving sleep, managing stress is an important component to injury prevention, health and safety, according to Rudolphi. "By using the 'Four A' Method of avoid (planning ahead), adapt (changing expectations), alter (changing the situation when you can) and accept (acknowledging that a situation is what it is), farmers can successfully manage the stress of long hours and unpredictability," she adds.

Feeling stressed this harvest season? WHAT'S YOUR PLAN?

Breakdowns. Long hours. Setbacks. There is no way to predict what harvest will bring. Have your PLAN in place to manage your stress for a safe and healthy harvest.

P — Prepare for the Season
With preparation, some stress can be avoided. Anticipate the demands of harvest and plan ahead. For example, prep healthy meals, fuel equipment and perform routine maintenance ahead of schedule. **What can you do to prepare?**

L — Lean on Loved Ones
Seeking support from others rather than taking on everything yourself can help reduce stress. Text or call a friend or family member when you need support. **Whom can you lean on?**

A — Activate Coping Mechanisms
Coping mechanisms can help manage stress. They include engaging in physical activity, finding ways to make yourself laugh and carving out time for hobbies. **Which coping mechanisms will you use?**

N — Nip Negative Self-Talk
Negative self-talk leads to decreased morale and feelings of hopelessness. When your inner critic nags, be kind to yourself and remember thoughts are not reality. **How will you tell your inner critic to take a hike?**

Need immediate assistance?
National Suicide Prevention Lifeline: 1-800-273-8255

CONTENT DEVELOPED BY JOSIE M. RUDOLPHI AND COURTNEY CUTHBERTSON, UNIVERSITY OF ILLINOIS EXTENSION

Welcome *New Members*

Lotus Operating Co LLC – *Wichita*
Zachary &/or Hal Wachholz – *Wichita*
Justin &/or Emily R Flora – *Sawyer*
Melissa M Minton – *Pratt*
Dylan &/or Kaylyn Brant - Sawyer
Kristin &/or Matt Thunderhawk-Folks – *Iuka*
Jennifer Leeper – *Preston*
Brownlee Lake Club LLC – *Wichita*
Utopia Ranch LLC – *Mooresville, NC*
Joseph S Wylie – *Greensburg*
Dakota &/or Emily Allison – *Lewis*
Lenkner & Son Inc – *Coats*
Mason Welsch – *Lewis*
Juan Fernandez &/or Yesenia de la Pena – *Pratt*