

NEBRASKA

Magazine

July 2022

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156th Homecoming
Celebration

Inside:

• Trend to Watch • Under Pressure •
Preventing Costly Copper Theft

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A dancer participates in the Annual Homecoming Pow-Wow celebration in Winnebago, Neb. Cover photograph by Wayne Price



Wayne Price

What is Beneficial Electrification?

If you're like most Nebraskans, you're interested in saving money on energy costs and in doing your part to help the environment. But wouldn't it be great if you could do both? Well, you can! It's through a concept called "beneficial electrification." This utility industry term means the innovations in energy technologies are creating new ways to use electricity instead of on-site fossil fuels, such as propane, natural gas and fuel oil, in a way that reduces overall emissions and energy costs.

In essence, by virtue of being plugged into the grid, the environmental performance of electric devices improves over time. As rural electric utilities across Nebraska shift to more options that include renewable energy sources to make existing generation technologies cleaner, electricity will require less fossil fuel per kilowatt-hour of energy produced.

So, here's how this concept impacts you. It means that electric appliances such as your water heater, clothes dryer, oven and even your lawn care equipment have the potential to become greener. When rural electric utilities take advantage of advances in technology and the market at the generation point (how the electricity is produced), it means those efficiencies are inherently passed along to you, the consumer-member.

Because large appliances have a typical lifespan of about 10 years, it means that you are able to benefit from the flexibility of the grid in addition to the increased efficiency of the particular appliance. In other words, the high efficiency electric oven you have today could be powered by renewable sources in the near future. This would not be the case with gas appliances where you are essentially locked into the technology of that gas appliance for the 10-year lifespan.

As electric utilities are able to tap into more renewable options in the future, your electric appliance has the potential to become greener and more energy efficient. The only way you would be able to benefit from this trend is through an electric appliance.

We care about our community because we live here too. I hope you'll reach out to your local electric utility to discuss available renewable energy options and to learn about more ways to reduce your energy use. Because when you participate in the energy efficiency programs and incentives we offer, you're doing your part to save energy and better our environment. While each member's reduction might be small, together, they can lead to significant savings of money and emissions. And that means a brighter future for all of us.



Safe Summer Fun

Longer days and lighter schedules make summer perfect for relaxing, having fun outdoors and spending time with loved ones. However, more physical activity and time spent in the sun can also translate to increased health and safety risks.

As you and your family enjoy the warmth and sunshine while swimming, biking, grilling, playing on the playground and more this summer, remember these precautions from the experts at the American Heart Association.

Watchout for Heat Stress

On hot summer days, be alert for signs of heat illnesses, such as heat cramps, heat exhaustion or heat stroke. Even when it doesn't seem extreme, heat and humidity can take a toll. Some signs of heat-related illness include muscle pain, cramps or spasms; heavy sweating; paleness; dizziness; headache; nausea or vomiting; confusion; fainting or unconsciousness; high body temperature (greater than 100 F) with dry skin; and rapid pulse. If you experience any of these symptoms, take a break, drink some water and find shade or air conditioning to cool off. If symptoms worsen, seek medical attention.

Stay Hydrated

Staying hydrated is important for optimal body functioning, especially during the hot and humid months. If you plan to spend a lot of time outdoors, frequently consuming water and foods with high water content – melons, lettuce and cucumbers, for example – can help replace the fluids lost via sweat. In addition, be aware of the signs and symptoms of mild dehydration, including a dry or sticky mouth; dry, cool skin; headache; or muscle cramps. More severe cases may include dry, shriveled skin; irritability or confusion; dizziness; rapid heartbeat; rapid breathing; fatigue; and unconsciousness.

Protect Skin from the Sun

While it's easy to get caught up enjoying activities outdoors, remember to take steps to protect your skin from the sun's damaging rays. Limit your time in the sun, especially during the midday hours when the rays are

strongest, and wear sunscreen to help reduce your risk of sunburn, skin cancer and the early onset of wrinkles. Experts recommend sunscreen with an SPF of 30 or higher. Wearing sunglasses, a hat and cool, long-sleeved clothing can further limit exposure when outdoors for long periods of time.

Be Smart with Fire

Firing up the grill and lighting fireworks are often synonymous with summertime, but open flames pose safety hazards. Never leave a grill unattended, always grill outdoors and keep children and pets away from the grilling area. When it comes to fireworks, keep a safe distance once lit, don't point fireworks toward anyone's face or body, never allow young children to play with them, avoid relighting fireworks that do not function properly and keep a bucket of water or fire extinguisher nearby when lighting.

Swim Safely

Whether enjoying the pool, beach, lake or river, bodies of water can be dangerous if appropriate precautions aren't taken. In fact, drowning is among the top five causes of unintentional injury death in the United States, according to the CDC. Avoid swimming alone, especially in natural bodies of water that aren't clear and may present strong currents or underwater obstacles, and don't overestimate your swimming ability. Designating an undistracted "water watcher," wearing life jackets and ensuring someone in your group knows CPR are also safe practices to keep in mind while swimming.

A Tradition of Honor

The Winnebago Tribe has held a celebration each year since 1866 to honor Chief Little Priest and a group of 75 warriors on their return from service in the U.S. Army

by Wayne Price

The celebration became an annual event following the death of Chief Little Priest as a tribute to the man that wanted to bring peace to his people at any cost. He had joined the U.S. Army to serve as a scout in Company “A”, Omaha Scout, 34th Nebraska Volunteers. He and a group of Winnebago warriors volunteered to help put an end to the Indian uprisings in the Northwest plains. Even though he had to fight against members of other tribes, Chief Little Priest felt it was necessary to bring an end to the conflicts his tribe faced in Northeast Nebraska.

He was wounded outside of Deer Creek Fort in Wyoming by a band of Oglala Lakota and some Northern Cheyenne warriors. His horse was shot out from under him, but he is said to have fought for hours more, holding his ground as a grizzly bear would. His wounds proved fatal after he was taken home to the newly bought Winnebago reservation. He died on Sept. 12, 1866.

The Winnebago Tribe of Nebraska's 156th Homecoming Celebration Pow-Wow will be held July 28 - 31, 2022. The four-day pow-wow features traditional songs and dances and traditional food. Open to the public, it draws drum groups, and dancers from all over the country. It also honors all of the tribe's veterans and service people, past and present.



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In addition to honoring heroes, the pow-wow is also a time for the Winnebago people to gather together with family and members of other tribes to pray, sing, dance and share food together.

The Winnebago people have lived in Nebraska since 1863. Many Winnebago families continue to live on their reservation in northeastern Nebraska. The reservation is located in the bluffs of the Missouri River, and is bordered on the south by the Omaha reservation. The pow-wow grounds are served electrically by Burt County Public Power District, headquartered in Tekamah, Neb. Dance categories range from traditional dancing for men, women and children, and contemporary

fancy style of pow-wow dancing. Women traditional dancers wear long, wrap-around cotton or wool skirts with ribbon work designs in floral or geometric designs, ribbon-trimmed shirts with long ribbons down the back. Jingle dancers use tobacco can lids to create shiny cones to decorate their cloth dresses.

Winnebago men wear regalia that identify the type of dance they are performing. Traditional dancers adorn themselves with porcupine headresses, bells and feathers. Fancy dancers wear brightly colored feathers and beadwork. Grass dancers wear long brightly colored yarn.



Always assume a downed power line is energized. Downed lines can energize the ground up to 35 feet away.



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Low-Carbon Alternative Fuels for Vehicles

When it's time to fuel up your vehicle, you're likely heading to the gas station or an EV charging station like most drivers in the U.S. But what if you owned a vehicle fueled by vegetable oil?

It may sound far-fetched, but alternative vehicle fuels (like hydrogen and biofuel) are quickly gaining attention across the nation. This shift away from gasoline-powered vehicles comes with several benefits, including improving the country's energy security and lowering vehicle emissions, which creates a healthier environment for all.

One of the newest alternative ways to power a vehicle is with hydrogen in the form of a fuel cell. This form of fuel is potentially emissions-free and can be produced using domestic resources. The hydrogen goes through an electrochemical process to produce electricity, which then powers your car. The only byproducts of this process are water and heat, emitted in the form of water vapor and warm air. Since the byproducts are clean, vehicles powered by hydrogen fuel cells produce no tailpipe emissions and are classified as zero-emissions vehicles.



Scientists are currently working to find new ways to expand ethanol production by experimenting with different plants. Photograph by Genevieve Martin, Oak Ridge National Laboratories/Department of Energy

Extracting the hydrogen itself can be a carbon-free process, depending on the way it's done. One way to extract hydrogen is from water through electrolysis, which requires power from another energy source. Using renewable energy (like solar or wind energy) to power electrolysis provides a carbon-free process to extract the hydrogen. However, there are other hydrogen sources that are less sustainable, such as producing it from natural gas, which emits carbon dioxide as a byproduct.

With hydrogen, drivers can refuel a vehicle in under five minutes and gain more than 300 miles of driving range. However, there are currently only a limited number of hydrogen refueling stations in the U.S., and most of these stations are limited to California. Hydrogen fuel cells are also very expensive to produce and transport, which is a



Photograph by Hyundai

gasoline sold in the U.S. includes 10% ethanol blended into the fuel, mostly from distilled corn. Scientists are currently working to find new ways to expand ethanol production by experimenting with different plants.

Biodiesel, a different form of biofuel, can be produced from vegetable oil, animal fats or recycled cooking grease, and can be used to power older cars that run on diesel. Since biodiesel is non-toxic and biodegradable, it is much safer than petroleum diesel if it's released into the environment. The most common sources for biodiesel production in the U.S. are soybean oil, corn oil and recycled feedstocks. There are several other non-mainstream biodiesel sources that can be manufactured from algae, municipal waste and wood chips. However, these options are much less common.

These alternative vehicle fuel options may not be mainstream yet, but over time, they can help lower our reliance on gasoline and diesel. As a bonus, these clean-burning options help to improve air quality and lower greenhouse gas emissions from the transportation sector.

There is great potential to see these alternative fuels expand over the years, and additional research efforts may help these fuels reach more individual consumers nationwide.



One of the newest alternative ways to power a vehicle is with hydrogen in the form of a fuel cell. The Hyundai NEXO shown here is hydrogen-fueled. Photograph by Hyundai

major obstacle for widespread hydrogen fuel cell technology. Although hydrogen fueling infrastructure is quite limited and the technology is still expensive, there are commercial efforts currently underway to determine how to expand that infrastructure and lower the technology costs.

Another form of alternative vehicle fuel is biofuel. Renewable biofuels are produced from biomass which can be used in gasoline- or diesel-powered vehicles. These fuels work in the same way gasoline or diesel does by fueling compression-ignition engines. One of the most common biofuels is ethanol, which is produced from sugars in corn or other grains, like sugar cane, sugar beets or rice. Sometimes biofuels can be blended with gasoline or diesel, or they can simply be used in pure form. Almost all

by Margaret Gregory

Fighting invasive emerald ash borers

To help arborists and city planners track and treat potential outbreaks, U.S. Forest Service scientists seek efficient monitoring techniques.



Invasive non-native insects have been called the “wildfires of the East,” given the damage they cause to trees. One pest, the emerald ash borer, has killed hundreds of millions of rural and urban ash trees.

Tree rings indicate the emerald ash borer arrived in the United States in the early to mid-1990s, probably embedded in shipping materials from eastern Asia. The beetle evaded scientists until 2002, when it was identified in millions of Detroit’s trees. Over the next two decades, it radiated through the Midwest, New England and the South — with clusters as far west as Colorado.

“We knew nothing about it at first,” said U.S. Forest Service entomologist Therese Poland, who has studied ash borer management since the beetle was first detected. According to Poland, early attempts to stymie its spread involved massive ash removal

campaigns. But these failed — and cost thousands of dollars per tree.

As scientists continued studying the beetle, they developed better ways to detect and manage it. They improved beetle traps, bred resistant trees and experimented using parasitic wasps to control beetle populations.

To complement these options, Robert Haight, a Forest Service researcher in St. Paul, Minnesota, has proposed a more strategic approach: identifying beetle-infested ash trees before they show signs of damage. One way, he says, involves searching for woodpeckers.

The emerald ash borer hides its eggs in bark crevices and tunnels deeply within trees — invisible to humans, but not to woodpeckers. They pick at the tree’s bark, searching for tasty grubs.

Along with other research colleagues from the Northern

Research Station, the New Jersey Institute of Technology, and the College of Saint Rose, Haight has developed a new model that combines a map of a city’s ash trees with a summary of their health. Multiple health categories denote unaffected, newly infested, and long-term infested trees. These highly specific categories improve upon previous models, allowing for more accurate forecasts of ash health.

These forecasts help city planners economize emerald ash borer management. For example, they can decide where to protect healthy ash trees by inoculating them with insecticide and where to remove low-value specimens.

Trees can endure infestations for a few years before exhibiting outward signs of damage, like yellowing leaves and dying branches. Once branches begin to die, insecticides may no



An ash tree that has not been protected with insecticide (left) versus ash trees that have been protected (right). Photograph by Jeff Hafner



longer prevent damage and death. Detecting vulnerable trees early gives arborists and others more opportunities for intervention.

Though emerald ash borer will likely remain an enduring problem, this new model, combined with other treatment options, informs and improves ash tree defense.

Communities can help. Haight noted that members of the public and tree care providers can track locations of potentially infested trees by searching for signs of the beetle — like woodpeckers.

Inset: A close-up look at the emerald ash borer. USDA Forest Service photograph by Debbie Miller

Right: An arborist injects an ash tree with insecticide. USDA Forest Service photo by Therese Poland

Top left: Members of the public can help track trees that might be under attack by emerald ash borers by looking for woodpeckers, which like to eat the insect grubs hidden under the bark. Photograph by Paul Turlonias /EyeEm GettyImages



Under Pressure

When it comes to irrigation, there is no place like Nebraska. By the time the 2007 United States Department of Agriculture (USDA) Farm and Ranch Irrigation Survey was conducted, Nebraska overtook California as the state with the largest number of irrigated acres and has held the title ever since.

Before our state was founded, Nebraska farmers had started our incredible irrigation history. When Nebraska joined the United States on March 1, 1867, about 10,000 acres of crops were already irrigated with surface water from ponds, lakes and rivers. By 1950, irrigated coverage increased more than 100-fold due to the rapidly expanding use of ground water. However, a revolutionary new water delivery system would help drive Nebraska to more than 8 million irrigated acres by the end of the century: the center pivot.

Traditional delivery systems used high-volume, low-pressure pumps to draw from water sources, then relied on gravity to distribute water through canals, pipes, siphon tubes and crop rows. Sadly, about half of the water using this method ran off fields, percolated down through the soil or evaporated before plants could utilize it. Center pivots keep the pumped water contained until it is released in close proximity of the plants being watered. Some center pivot systems deliver water so efficiently, 95% or more is utilized by the crop. Today, nearly 90% of Nebraska's irrigated ground is watered with approximately 60,000 center pivots.

Converting to center pivot irrigation systems has provided farmers significant effort, time and water savings while increasing crop yields. Unfortunately, there have been many missed opportunities to optimize energy efficiency in doing so. While traditional systems were designed for high flow/low pressure operation, pivot systems require less flow but much higher pressure to deliver uniform water distribution. When converting, it was common to forego the additional cost of replacing the original pump with one designed to match the new pivot's flow and pressure requirements. Many farmers have opted to modify existing pumping



systems by installing inexpensive valves and regulators. Some chose to replace their old pump at the same time, but may have selected a new pump that oversized delivery pressure. Still others selected pivots with sprinkler packages that provided wetting diameters larger than necessary to eliminate runoff concerns. This too, requires more pressure than necessary, which results in greater energy consumption.

The 2018 USDA Farm and Ranch Irrigation Survey indicated that one in eight irrigation wells in Nebraska operate above 60 pounds per square inch (psi). While a handful have operating conditions that can only be addressed by higher pumping pressure, many could find



Replacing leaky sprinklers 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.

significant energy savings through system improvements.

The table below illustrates the operation of a center pivot system with average overall efficiency that spans 135 acres. Over the course of a season, 10 acre/inches of water are pumped with an average lift of 138 feet and a flow rate of 760 gallons per minute. A system designed to operate at 45 psi will require about 16% less energy than one designed for 65 psi.

Though many ag producers have seen considerable cost savings and enhanced performance by reducing operating pressure of their entire system, many others may still be using more energy or pumping more water than needed.

	@ 65 psi	@ 45 psi	Savings
Diesel (gallons)	4,923	4,131	792
Natural Gas (therms)	9,973	8,370	1,603
Propane (gallons)	8,931	7,495	1,436
Electricity (kWh)	69,529	58,354	11,175

Accidents around the home result in millions of injuries to the most vulnerable members of your family — young children and pets — each year. For example, approximately 2,400 children receive emergency room treatment annually for injuries caused by inserting objects into electrical receptacles, according to the U.S. Consumer Product Safety Commission (CPSC).

With a few precautions, these and other injuries can be avoided:

- Install tamper resistant outlets (TROs) that protect against small children inserting foreign objects into them. Simple plastic caps typically used can be easily removed by some children.
- Keep electrical cords tied up or out of sight.
- Unplug all appliances when they are not being used, such as hair dryers or coffee makers.
- Keep appliances out of children's bathrooms.
- Teach children not to touch appliances when they have wet hands and to keep appliances away from water.
- Teach children other basic safety tips such as staying away from outlets and not touching electrical cords.

Some of the same tips apply to pets:



- Keep electrical cords away from cats and puppies who love to chew on them.
- Make sure nightlights and appliances are fully plugged in. Partially exposed prongs can be a temptation to curious critters.
- Keep appliances in bathrooms away from water. Playful pets can knock radios or curling irons into water, creating a dangerous situation.
- Discourage cats and dogs from curling up for naps behind electrical equipment such as computers.

Source: *SafeElectricity.org*

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Q : I'm planning a remodeling project this year. What energy efficiency upgrades should I consider?

A : I write this from deep in the throes of a remodel that, like many remodels, has lasted much longer than planned.

Remodeling is a great opportunity to take care of energy efficiency improvements by adding them to your scope of work. If your home is already under construction, take the extra step to make it more efficient.

Planning for efficiency is the first step. Look at the scope of your remodeling project to see what energy efficiency upgrades you can add. There may be cost savings and convenience in tackling both at once.

Here are a few examples of energy efficiency upgrades for common remodeling projects.

Kitchen Remodel

If your kitchen remodel includes new appliances, buy EnergyStar-rated models. EnergyStar refrigerators are about 9% more efficient than standard models, and EnergyStar dishwashers save both energy and water.

As for kitchen faucets, there are options available with multiple flow-rate settings. You can save water by using a lower flow rate on your faucet when washing dishes, vegetables or your hands, but you can change the setting to quickly fill a pot for cooking.

Bathroom Remodel

If you plan to remodel your bathroom, include a high-performance showerhead. Look for the WaterSense logo for showerheads, faucets and toilets, which ensures the product meets performance and water use standards. Check the fine print on your existing equipment to see how much you can save. The gallons per minute (GPM) is usually printed on showerheads and faucet aerators and the gallons per flush (GPF) is usually printed on toilets.

High-performance showerheads and faucet aerators

conserve water and save energy used to heat water. Using less water can lower your water bill or increase your septic system's lifespan.

Basement Remodel

This is where I find myself right now. Our basement has gone from a wide-open space with concrete walls to a nearly completed living space with a den, two bedrooms, a bathroom and a laundry room.

We air sealed and insulated the sill plate and rim joist—the framing between the concrete foundation and the main level floor. We built and insulated walls around the basement's perimeter, ensuring a cozy living space and a more comfortable home.

We upgraded our electric storage water heater to a hybrid—or heat pump—water heater, which is 70%

more efficient than a standard electric model.

Also, we ran power for an electric vehicle charger while the walls were open. It is much less expensive to run the power supply while you have access.

Attic Insulation

Often, remodeling requires work in the attic for new lighting or venting bath or kitchen fans. During any project that takes you into the attic, check insulation levels. Work in the attic can negatively impact attic insulation by crushing it or removing it to access work areas.

If more insulation is needed, air seal and check ventilation. Also, make sure all bath and kitchen fans vent to the exterior of the house.

Insulation may not be as pretty as new countertops, but it can help reduce your energy costs and make your home more comfortable.

A little planning during a remodel can go a long way toward improving your home's energy efficiency. Remember: it's more difficult and more expensive to go back and tackle energy efficiency projects after your space is finished.



During any project that takes you into the attic, check insulation levels. Photograph by Mike Teegarden, Pioneer Utility Resources

Strange things start happening when the world price of copper skyrockets to record levels like it did this year. An Arkansas hospital faced a possible delay in opening when thieves stole copper wiring at a construction site; hundreds of West Virginia homes and businesses lost phone and wi-fi service when a copper-filled cable was stolen from the region's internet provider; and 700 streetlights went out in Los Angeles when thieves made off with 370,000 feet of copper wire.

Copper is incredibly useful. It's flexible and conducts electricity well. It's a staple for utilities and is used to make nearly every type of electronic device. Copper's nontoxic nature and resistance to corrosion also make it useful in plumbing.

A Risk to Public Safety

So, there's lots of it around, and over the decades when copper prices have gone up, the thieves have come out. Copper theft can have consequences way beyond just the inconvenience of stolen property.

According to a 2008 FBI report, copper thieves threaten critical infrastructure by targeting electrical substations, cellular towers, telephone land lines, railroads, water wells, construction sites and vacant homes for lucrative profits. Copper theft from these targets disrupts the flow of electricity, telecommunications, transportation, water supply, heating and security and emergency services. It also presents a risk to both public safety and national security.

Copper crimes can result in death, with regular reports of thieves being electrocuted while removing wire from utility poles or substations. Stealing copper also threatens the lives of utility workers by disconnecting critical safety devices.

Copper theft has been a regular problem for utilities and even private homes under construction. Theft cases started increasing dramatically in 2001 when the construction boom in China sent demand, and prices, for copper shooting skyward.

Copper is the New Oil

The copper price and theft rate has fluctuated since then, but started going up again a year ago for two reasons: the economic recovery from the pandemic and demand for renewable energy.

As the use of solar energy and wind power grows, more copper wiring will be needed to carry the electricity it produces. There's a lot more copper wiring in an electric vehicle than one that runs on gasoline. Copper's value to greener power has led some observers to refer to it as "the new oil."

Last year, copper prices hit a record high. In March of this year, they went even higher. Copper's continued importance to utilities, the economy and to criminals, has led to a greater focus on preventing thefts.

Laws have been toughened over the past 20 years, and now all 50 states have statutes in place to reduce copper theft. Many of those laws focus on making sure that scrap metal dealers know the source of the copper they're buying. Companies have developed ways to secure wiring in air conditioning units and come up with coatings that can identify stolen property. Some copper products are being stamped with identifying codes, and video surveillance

is being added to areas with a lot of copper.

Public power districts and electric cooperatives, have placed special emphasis on preventing copper theft. Over the years, utilities have launched public awareness campaigns, offered rewards for information leading to the arrest and conviction of thieves, marked copper wire for easier recovery from scrap metal dealers and collaborated with stakeholders. In addition, law enforcement has become more responsive to electric utilities facing copper theft and collaborate with utilities to recover more stolen copper and arrest those responsible.

You can also help. Many copper thieves have been captured when observant citizens saw something suspicious and called 911.



Sweet Ideas for Celebrations All Year Round

Regardless of the occasion, any excuse to celebrate is a worthy one. From birthdays and holidays to regular weekends at home, one of the best gifts you can give family is time spent together.

The entire family – including little ones – can get involved when the celebration calls for easy yet delicious recipes. Start a day of celebrating on a high note with these Apple Cinnamon Waffles for a sweet breakfast in bed. As the day winds to a close, finish off the festivities with Apple Blondie Cupcakes.

These recipes and more family-friendly breakfast, lunch, dinner, dessert and snack ideas are enhanced by the satisfying texture and taste of Envy Apples for a consistently balanced, refreshing sweetness coupled with crisp, elegant crunch. Easy to spot by their large, sharable size and crimson red skin that sometimes features a golden blush, they offer a fresh flavor perfect for snacking.

Visit EnvyApple.com to find more recipes the entire family can enjoy together.



Apple Cinnamon Waffles

- 1 cup all-purpose flour
- 1/2 teaspoon kosher salt
- 1 teaspoon cinnamon
- 2 teaspoons baking powder
- 2 tablespoons brown sugar
- 2 eggs
- 1 cup milk
- 4 tablespoons unsalted butter (1/2 stick), melted
- 1 Envy Apple, peeled and cored
- nonstick cooking spray
- 4 tablespoons unsalted butter (1/2 stick), at room temperature
- maple syrup, to taste

In large bowl, whisk flour, salt, cinnamon, baking powder and brown sugar.

In smaller bowl, whisk eggs, milk and melted butter.

Make well in dry ingredients then mix in wet ingredient mixture until just combined.

Using cheese grater, grate apple. Fold grated apple into batter.

Prepare waffle iron with nonstick cooking spray.

Ladle 1/4 of batter mixture into waffle iron and cook according to manufacturer's instructions. Repeat with remaining batter.

Top each waffle with 1 tablespoon room temperature butter and maple syrup, to taste.



Apple Blondie Cupcakes

- 1 1/4 cups all-purpose flour
- 1/2 teaspoon baking powder
- 1/2 teaspoon kosher salt
- 1/2 teaspoon cinnamon
- 1/4 teaspoon nutmeg
- 1/2 cup unsalted butter (1 stick), melted and cooled
- 1 cup light brown sugar, packed
- 1 teaspoon vanilla extract
- 1 large egg, at room temperature
- 2 Envy Apples, peeled, cored and 1/4-inch diced

Preheat oven to 350 F. Line 12-count muffin pan with cupcake liners and set aside.

In medium bowl, whisk flour, baking powder, salt, cinnamon and nutmeg.

In large bowl, whisk butter and brown sugar 2 minutes, or until well combined. Add vanilla and egg; whisk until incorporated.

Add flour mixture to large bowl of wet ingredients. Stir until just combined; be careful to not overmix.

Fold in diced apples.

Spoon batter evenly into cupcake liners.

Bake 18-22 minutes, or until toothpick inserted into center of cupcake comes out clean. Let cool and serve.

Salsa From the Garden

- | | |
|----------------------------------|--|
| 4 cups chopped tomatoes | 1/2 teaspoon garlic powder |
| 1 1/2 cups chopped green peppers | 1 tablespoon sugar |
| 3/4 cup chopped onion | 1/2 teaspoon salt |
| 1 - 2 jalapenos, chopped | 1+ tablespoons cornstarch |
| 1 teaspoon minced garlic | (Add 1/2 cup apple cider vinegar if making 4 batches at once.) |
| 1/2 teaspoon onion powder | |

Cook slowly for 20 to 30 minutes – add 1 tablespoon cornstarch (mixed in a small amount of cooled juice). May need more cornstarch for desired thickness. Pour into canning jars. It can process with either hot water bath for 15 minutes or in pressure cooker for 10 minutes. Excellent!

Diane K. Olson, Hemingford, Nebraska

Chokecherry Jelly

- 4 cups chokecherry juice
- 6 cups sugar
- 1 package Sure-Jell
- 1/4 teaspoon almond extract

Mix juice and Sure- Jell. Bring to rolling boil while stirring, add sugar all at once. Return to rolling boil. Boil around 2 minutes stirring constantly. Remove from heat. Add extract. Pour into jars. I always make this jelly and it is so good.

Shirley Boltz, Dannebrog, Nebraska

Crisp Oven Zucchini Fries

- 1/2 cup flour
- Salt and pepper to taste
- 1 egg
- 1 egg white
- 1/2 cup panko breadcrumbs
- 1/4 cup grated parmesan cheese
- 1/2 teaspoon paprika
- 2 zucchini (about 12 oz.) cut into 4" X 1/2" sticks

Heat oven to 425 degrees. Coat large, rimmed baking sheet with cooking spray. Whisk flour, salt and pepper together. Beat egg and egg white together. Whisk together panko breadcrumbs, parmesan cheese, paprika and a big pinch of salt and pepper. Dip zucchini in flour, then egg mixture, then breadcrumb mixture. Place pieces 1" apart on baking sheet. Bake 10 minutes, flip and bake until golden brown, about another 10 minutes.

Donna Siebrandt, Bancroft, Nebraska



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