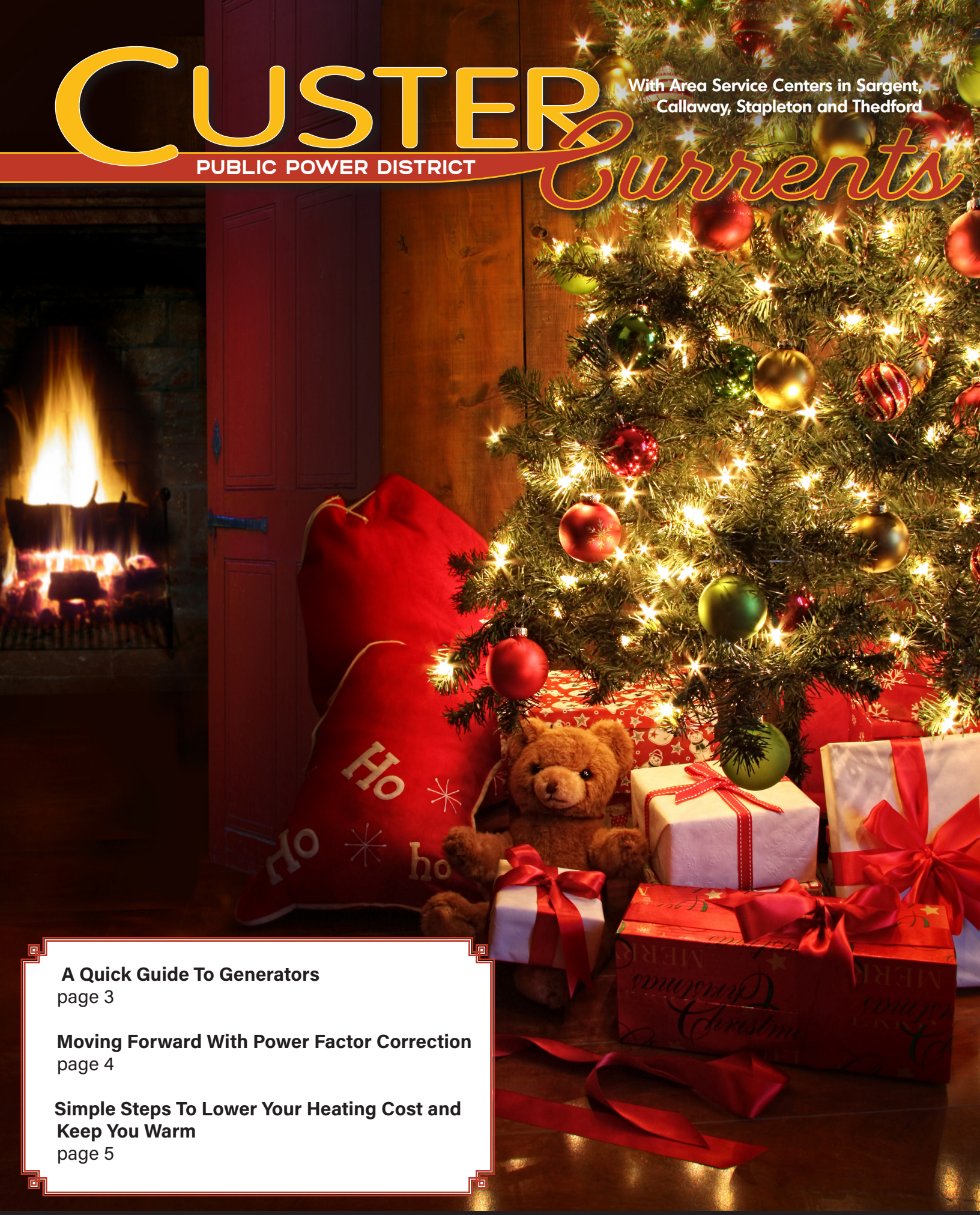
CUSTER PUBLIC POWER DISTRICT Currents

With Area Service Centers in Sargent, Callaway, Stapleton and Thedford



VOLUME 2 ISSUE 12 *Empowering Progress* November/December 2022

CUSTER PUBLIC POWER DISTRICT Currents

Newsletter of the

Custer Public Power District

Serving Custer, Loup, Blaine, Thomas, Hooker, McPherson, Logan, and parts of Sherman, Garfield, Brown, Cherry, Lincoln, and Dawson Counties

Custer Public Power District Newsletter is published bimonthly by:

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From the GENERAL MANAGER'S *desk*

This is usually the magazine that I recap what Custer Public Power District has accomplished. To be honest, 2022 has been a little crazy.

The dry weather conditions led to increased irrigation. While that did not cause Custer Public Power District any issues, supply chain and manufacturing created a bottle neck in just about everything that was purchased, including transformers. On top of that, there is inflation. Just like it has affected you, inflation has hit Custer PPD on almost everything purchased this year.

Despite the lack of material, Custer PPD accomplished a lot in 2022. There were several big projects to connect new customers and all the energy needs were met for the district.

Custer PPD has plans and equipment to accomplish several new construction projects in 2023. Those new construction projects include new services. While our inventory is not where it should be, Custer PPD has the equipment on order and staggered for delivery through 2023.

When you see the linemen building a new line, it can sometimes be thought of as the "tip of the iceberg." With all the outside work comes the inside paperwork, the planning, studying, engineering, stocking material, accounting, and inspecting detail for the new line. Custer PPD has completed a large amount of work for this year.

As I think about Custer Public Power District's accomplishments in 2022, I wanted to note positive things done in the communities that Custer PPD serves. The District contributes to the 4-H Foundation and the 4-H Camp. Custer PPD sponsors area youth to attend the Energy Camp in Halsey and the Washington DC Youth Tour. The District believes in educating school kids on the heritage of public power - in and around our rural communities. Custer PPD provides scholarships to high school seniors who want to pursue a career as a lineman. Those scholarship winners are then employed the following summer as an intern to help keep our young people in our area.

Custer PPD also contributes to the fire departments in our service territory, belongs to Chamber of Commerce in the communities served, supports economic development groups and the scenic byway, along with fair time events - like barbecues and rodeos. The District belongs and participates in Loup Basin RC&D and Sandhills RC&D.

Custer PPD employees teach electrical safety in schools, participate in safety day for kids, and provide the high voltage demonstration and low voltage demonstration to communities and groups

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Board Meetings

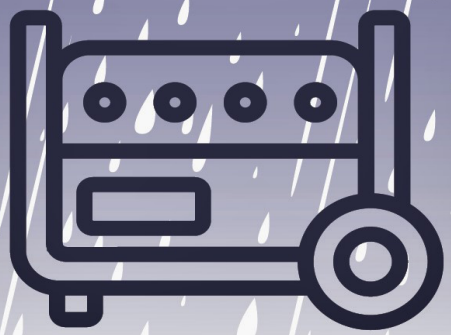
The regular monthly meeting of the Custer Public Power District Board of Directors is on the last Thursday of each month, beginning at 10:00 a.m.(CT) in the main office in Broken Bow at 625 E South E on HWY 2.

An agenda for each regular meeting of the board is available for public inspection during business hours.

In the event of matters of an emergency nature or conflicts with other meeting dates, the Board of Directors will set changes. Any change in the monthly meeting date will be posted in the legal notice at the main headquarters building at Broken Bow and at each of the District's area service centers located in Callaway, Sargent, Stapleton and Thedford, Nebraska.

A QUICK GUIDE TO GENERATORS

With proper use and maintenance, generators provide great convenience during a power outage. Before you purchase a generator, determine your backup power needs to select the right size. Make a list of essential appliances and devices you'll want to power during an outage, then total the required wattage.



RECOMMENDED IF YOU...

... rarely lose power.

Recreational Inverter
Up to 2,000 watts
Lightweight, about 60 pounds
Quiet, easy to store
Power: fridge and a few smaller items (i.e. lamp, phone charger and home security system)

Midsized Inverter
Up to 3,500 watts
Weighs up to 150 pounds
Power: fridge, laptop, five to 10 lights, phone charger, home security system and 10K BTU air conditioner

... occasionally lose power. Transfer switch required.

Portable Generators and Large Inverters
Up to 7,500 watts
Weighs about 300 pounds
Power: fridge, gas furnace, 10K BTU air conditioner, dishwasher, multiple lights, TV, laptop and more
Ability to connect to home's breaker panel

... frequently lose power. Transfer switch required.

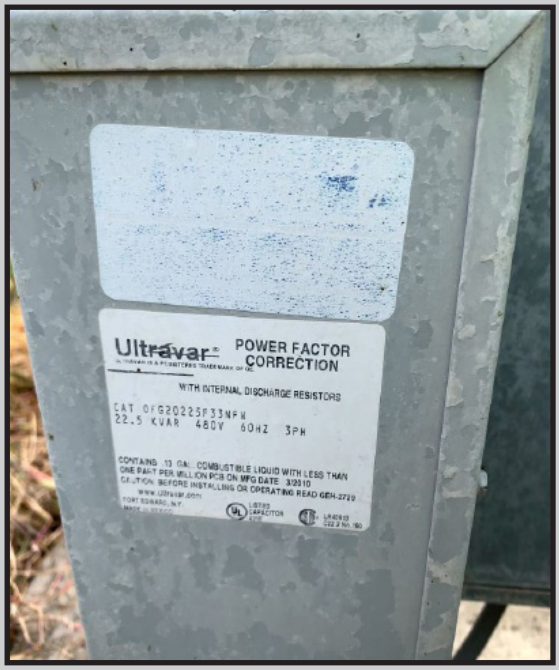
Home Standby
Up to 20,000 watts
Must be permanently installed; starts automatically during outage
Power: nearly all home appliances and electronics (simultaneously)
Can run indefinitely on natural gas or propane
Recommended if you frequently lose power.

SAFETY FIRST!

- Let us know if you purchase a generator that you plan to connect to an electric panel.
- Improperly installed generators can create back feed, which is dangerous to our crews and the community. **Before using the generator, disconnect the normal source of power coming into your home/business.**
- Never operate a generator indoors or in an enclosed space.

Disclaimer: Please note safety requirements may differ based on the type of generator you purchase. Thoroughly read the operator's manual and know how to shut off the generator quickly.

Source: Consumer Reports



Moving Forward with Power Factor Correction

Custer Power has required capacitors on irrigation motors since 1976. But what exactly is a capacitor's purpose? Capacitors clean up wasted energy. Motors are an inductive load that causes voltage and amperage to become out-of-sync. The capacitors bring the voltage and amperage back together or in sync. When the voltage and amperage are out-of-sync, it creates wasted power. This wasted power affects the voltage on your irrigation site. Too much-wasted power causes voltage issues affecting the quality of power on Custer Power lines. Power Factor is the measurement of wasted power – it measures the efficiency.

Another way to think about it is the Beer Analogy. The beer portion of a glass shows the useful power, and the foam is all the wasted power generated. No one likes beer foam, just like power companies do not like wasted power.

Why are we providing education on power factor?

Custer Power has changed-out 82% of irrigation meters to a more advanced meter. The new meters provide more data to help Custer Power have a strong, dependable grid. One piece of data is the Power Factor. It lets Custer Power know which services are not performing at the required levels.

Custer Power has pulled the power factor on 511 meters. We took a sample of 118 and visited the irrigation sites to investigate the power factor readings. We found capacitors missing, unhooked, sized incorrectly, or not working.

There are other pieces of meter data that can help you as a customer. For instance, Custer Power has seen bad voltage on individual irrigation wells. The cause was down the line, and we were able to get it fixed before the customer realized an issue at the service. In certain circumstances, Custer Power can also identify outages at an individual service and get the service energized before the customer ever catches it.

Custer Power is moving towards a power factor correction charge. The power factor charge and related data will appear on the irrigation bills. As Custer Power moves forward, please call the office to learn more about your irrigation services and power factor.

Irrigation season is hard on everyone - irrigators, pivot dealers, well dealers, electricians, and even Custer Power employees. The Custer Power grid is seeing challenging times. As capacitors are not working, this causes additional voltage issues along Custer Power lines which adds costs to Custer Power and eventually to our customers/owners. Custer Power strives to ensure our Mission Statement is met in all aspects of the business.

Custer Public Power District Mission Statement

Our mission is to safely deliver electricity to our customers/owners, keep the District in a sound financial position, and exceed expectations in service and reliability.

Custer Power wants to give everyone time to get their irrigation systems corrected and updated. Dates to remember relating to the capacitors.

2023 - Irrigation services with no capacitor or a capacitor unhooked will be disconnected.

2024 - Irrigation services with a power factor lower than 93% will be charged a power factor correction. (More details will be provided during 2023.)

(continued from page 2)
who want to learn more about electricity and understand the hazards involved. Custer PPD employees participate in the Nebraska State Fair with other power districts. They support their communities by participating in other organizations and activities where they live. They donate their time and effort to give back to those communities.

Yes, 2022 has been crazy but I am truly grateful for the dedication of Custer PPD employees to their job and to their communities.

I hope you have a joyous holiday season.

Rick Nelson, General Manager

Electrical Safety Tips for Hunters

We encourage all members to be aware of electrical equipment while hunting. Keep these safety tips in mind as you enjoy the great outdoors.

- Keep clear of electrical equipment.
- Do not shoot at or near power lines or insulators.
- Know where power lines and equipment are located where you hunt.
- Be vigilant in wooded areas where power lines may not be as visible.
- Never place deer stands on utility poles.
- Never place decoys on power lines or other utility equipment.

Simple Steps to Lower Heating Costs and Keep You Warm

According to EnergySavers.gov, heating and cooling account for about 56 percent of the energy use in a typical U.S. home, making it the largest energy expense for most homes. There are some simple steps, such as sealing air leaks to keep cold air out, which can help you save on your energy use and energy bills:

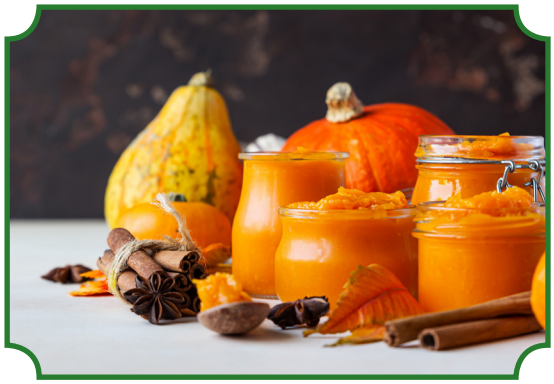
- Use caulk to seal gaps in the walls of your home or apartment. Wherever different building materials meet, or wiring comes out of a wall, there are gaps that may contribute to the loss of heat in your home.
- Weather stripping is relatively easy and available at your local home improvement store. Stop drafts from coming in and heat from leaking out of your home through drafty doors and windows.
- If you have older or leaky windows, consider temporary fixes, such as plastic film kits that create the effect of an interior storm window.
- Open curtains to the sun to help warm a room with radiant energy. Close them at night and on gloomy days to keep heat in.
- Lower the temperature setting when you leave the home and at night when you go to sleep. A programmable thermostat can automatically make these adjustments for you.
- Replace your furnace filter monthly to save energy and improve heat circulation.
- Set the water heater thermostat to 120 degrees and if it is an older unit, install an inexpensive insulating blanket to prevent heat loss.
- If you have a fireplace, be sure to close the damper when it is not in use. This prevents heat from escaping and cold from entering through your chimney.
- Doors and vents of unused rooms can also be closed if there is a cold air return in the room; otherwise, closing them off will put inefficient stress on your air handling system.

For more information and videos on electrical safety, visit www.SafeElectricity.org. Safe Electricity is a program of the Energy Education Council, a non-profit organization dedicated to promoting electrical safety and energy efficiency, and supported by a coalition of hundreds of organizations, including electric utilities, educators and other entities committed to promoting safe use of electricity.

EnergyEdCouncil.org SafeElectricity.org EfficiencyResource.org

Pumpkin Bars

Courtesy of Tammy Flynn ~ Broken Bow, NE



INGREDIENTS:

2 cups of sugar
1 can of pumpkin
1 cup oil
4 eggs
2 tablespoons sour cream
2 teaspoons baking soda
1 teaspoon cinnamon
1/2 teaspoon salt
2 cups flour
1 cup walnuts (optional)
1 can cream cheese frosting

DIRECTIONS:

Mix sugar, pumpkin, oil, and sour cream together, then beat in eggs one at a time. Add flour, soda, cinnamon, salt, and walnuts; mix well. Best when baked in a greased jelly roll pan.

Bake at 350° for 25 to 30 minutes. Frost with frosting. Sprinkle with more chopped walnuts, if desired.

Meatball Puffs

Courtesy of Mesa Taylor ~ Broken Bow

INGREDIENTS:

1 can flaky biscuits
Frozen meatballs, thawed
10 slices cheese

DIRECTIONS:

Separate and flatten biscuits to be able to make a pocket. Add 1 or 2 meatballs and cheese. Wrap up the dough and seal edges. Place edge down. Season with pepper, basil, oregano, garlic powder, and sprinkle with Parmesan cheese. Bake at 375° - uncovered until golden brown. Dip in marinara sauce.

Club Cracker Bars

Courtesy of Hazen Taylor ~ Broken Bow

INGREDIENTS:

1/2 cup oleo
1 cup brown sugar
1cup graham cracker crumbs
1/2 cup milk
1 teaspoon vanilla
Club Crackers
1/2 cup butterscotch chips
1/2 cup chocolate chips
2/3 cup peanut butter

DIRECTIONS:

Boil oleo, sugar, crumbs, and milk for 10 minutes. Add vanilla. Line bottom of 9X13 pan with crackers. Put half of mixture over top of crackers then add a layer of crackers. Pour rest of mixture over top and cover with another layer of crackers. Melt the butterscotch chips, chocolate chips, and peanut butter then spread over the top of the crackers.

Cranberry Orange Muffins

Courtesy of Sally's Baking Recipes - sallysbakingaddiction.com

INGREDIENTS:

1/2 cup (115g) unsalted butter, softened to room temperature
1/2 cup (100g) granulated sugar
1/4 cup (50g) packed light or dark brown sugar
2 large eggs, at room temperature
1/2 cup (120g) yogurt*
2 teaspoons pure vanilla extract
zest of 2 oranges
1 and 3/4 cups (219g) all-purpose flour (spoon & leveled)
1 teaspoon baking soda
1 teaspoon baking powder
1/2 teaspoon ground cinnamon
1/2 teaspoon salt
2 Tablespoons (30ml) orange juice
2 Tablespoons (30ml) milk (any kind)
1 and 1/2 cups (185g) fresh or frozen cranberries (do not thaw)

Cranberry Orange Muffins photo by Sally McKenney

GLAZE:

1 cup (120g) confectioners' sugar
3 Tablespoons (45ml) orange juice

DIRECTIONS:

Preheat oven to 425°F (218°C). Spray a 12-count muffin pan with nonstick spray or line with cupcake liners. Set aside.

In a medium bowl using a handheld or stand mixer fitted with a paddle attachment, beat the butter on high speed until smooth and creamy, about 1 minute. Add the granulated and brown sugars and beat on high until creamed, about 2 full minutes. Scrape down the sides and bottom of the bowl as needed. Add the eggs, yogurt, and vanilla extract. Beat on medium speed for 1 minute, then turn up to high speed until the mixture is combined and uniform in texture. Scrape down the sides and bottom of the bowl as needed. Then, beat in the orange zest until combined.

In a large bowl, toss together the flour, baking soda, baking powder, cinnamon, and salt. Pour the wet ingredients into the dry ingredients and slowly mix with a whisk. Add the orange juice and milk, gently whisking until combined and little lumps remain. Fold in the cranberries with a wooden spoon or rubber spatula.

Spoon batter into prepared muffin pan, filling them all the way to the top. Top the batter with an additional cranberry or two, for looks if desired. (I like the pop of color on top of the muffins in doing this.) Bake for 5 minutes at 425°F (218°C), then keeping the muffins in the oven, lower the oven temperature to 350°F (177°C) and bake for 18-20 more minutes or until a toothpick inserted in the center comes out clean. The total times these muffins take in the oven is about 23-25 minutes.

While the muffins are cooling for a few minutes, make the glaze by whisking the glaze ingredients together. Drizzle over warm muffins. Allow to briefly cool before serving.

TIPS:

Cranberries: You can use 1 and 1/2 cups dried cranberries as a substitute for the fresh/frozen cranberries.

Make Ahead & Freezing Instructions: Muffins without glaze stay fresh covered at room temperature for up to 5 days. Cover and store muffins with glaze at room temperature for up to 1 day or in the refrigerator for up to 1 week. Glazed or unglazed muffins freeze well for up to 2 months.

OFFICE HOURS

Monday through Friday
8:00 a.m. to 5:00 p.m. CT
The office will be closed

November 11 to observe Veteran's Day,
November 24 & 25 for Thanksgiving,
December 26, and January 2.

For after hour emergencies,
call 1-888-749-2453.

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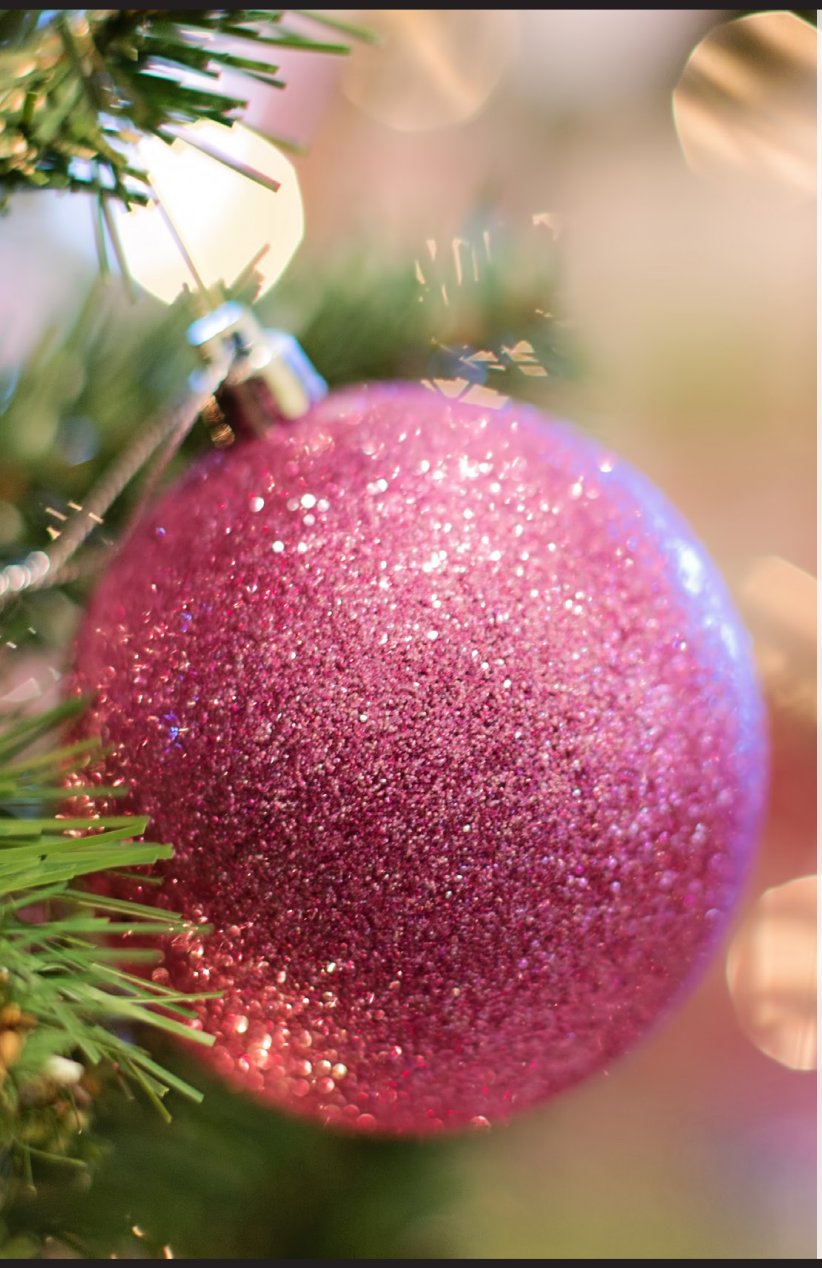

Deck the Halls **SAFELY**

- Use only lights, cords, animated displays, and decorations **rated for outdoor use.**
- When decorating outside, **look up and around** for power lines. **Never throw lights** or other decorations into trees near power lines.
- Keep ladders, equipment, and yourself **at least ten feet away** from power lines.
- Cords should be plugged into outlets equipped with **Ground Fault Circuit Interrupters (GFCIs).**

For more **holiday safety tips** visit:

SafeElectricity.org