



July 2017

RURAL MISSOURI

Sac Osage Electric Cooperative

News

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For over fifty years Rural Electric Cooperatives have been sponsoring trips for high school juniors to tour Washington, D.C., and learn what our American Flag truly stands for.

It is a wonderful opportunity for local youth to experience our nation's capital in a fun filled, action packed, and inspirational way.

Juniors throughout Sac Osage Electric Cooperative's nine county territory entered the cooperative's Youth Tour contest by filling out an application.

Nine finalists were chosen from the entries received. Hard work and creativity has paid off for four area high school juniors.

Congratulations to Hannah Wheeler of Osceola High School and Clay Landoll of Nevada High School, who were awarded an all-expense paid trip to Washington, D.C.. Hannah and Clay joined more than 100 Missouri students and over 1,500 students from across the U.S. on this week-long tour of D.C., visiting memorials, museums, cherished monuments, and getting a firsthand look at our government at work.

These fortunate high school students represent their local cooperative on a whirlwind tour of the nation's capital. All the while they are learning about electric cooperatives and their role in the community.

The Electric Cooperative Youth Tour has brought high school students to Washington, D.C., every June since the late 1950s.

Congratulations to Charlie Lines of El Dorado Springs R-II High School and Ryan Owens of El Dorado Christian School, who were awarded an all-expense paid trip to attend the Cooperative Youth Conference and Leadership Experience (C.Y.C.L.E) in Jefferson City, Missouri.



*Youth Tour Winners - Hannah Wheeler and Clay Landoll
CYCLE Winners - Ryan Owens and Charlie Lines*

The C.Y.C.L.E Program's main focus is to show the student more about electric cooperatives, teach leadership skills, and experience the Missouri State Government.

This program includes nationally known speakers, a day at the state Capitol, and some of the brightest young leaders from across Missouri.

We hope all of the finalists enjoy these great opportunities and use them as tools to grow toward tomorrow's leaders. We also want to thank all of the students who participated in our contest this year and encourage everyone who knows an upcoming high school junior to check out our contest next January, 2018.



**Offices will be closed
on Tuesday, July 4th
in celebration of
Independence Day.**

Summer's wonder

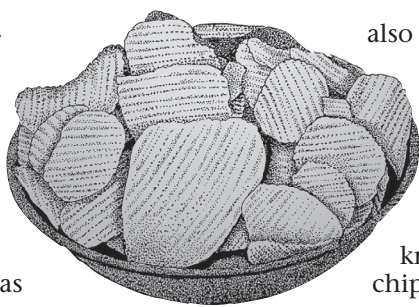
There are many superstitions about summer thunder. Some people believe that it frightens the beans into growing. Others say that thunder in the morning brings wind, while a noon thunder brings rain and an evening thunder



brings a tempest. Thunder in July is thought to injure wheat and barley. If there's lightning without thunder, fair weather is on the way. As for wind direction, "Thunder and lightning in the summer show, the point from which the freshening breeze will blow."

A new snack is born

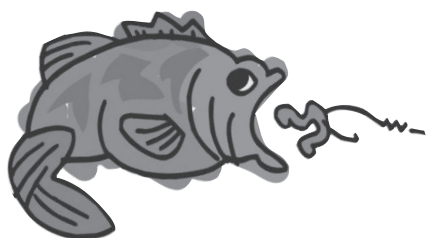
In the summer of 1853, french-fried potatoes were a popular menu item at Moon's Lake House in Saratoga Springs, N.Y. One evening, a diner at the restaurant found that the french fries were too thick for his taste. He sent the potatoes back, requesting thinner fries. When the second batch of fries was



also rejected, the chef lost his patience. He cut paper-thin slices of potatoes and fried them to a crisp. The finicky guest was ecstatic, and the browned chips became a house specialty called Saratoga chips. Today, we know them simply as potato chips.

Best fishing days

Some say that the fishing is better when the moon is between new and full. Good fishing times are also believed to be at hand an hour before and after high and low tide. Other "best times" are when the barometer is steady or on the



rise, when the breeze is from the west, and when the water is still or rippled, rather than during a strong wind. However, the very best time to go fishing may be when we can find the time — regardless of the conditions.

For recipes, gardening tips and weather forecasts, visit:
www.almanac.com

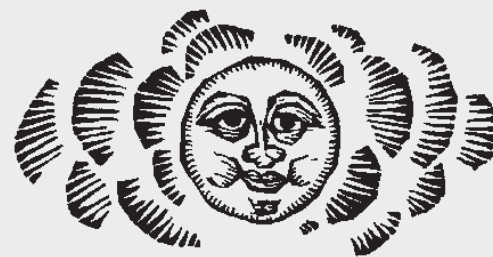
Recipe for Dog Days Iced Tea



6 bags black tea
2 tablespoons sugar
1/2 cup mint leaves, divided
1-1/2 cups chilled orange juice
1 orange, sliced
1 lemon, sliced
ice cubes

Brew a strong tea in about 6 cups of water. While it is still hot, add the sugar and about a dozen mint leaves. Let it cool and remove the tea bags and mint. Add orange juice, fruit slices and ice. Serve over more ice, garnished with fresh mint leaves; add a fruit slice or two to each glass. Makes 4 servings.

THE OLD FARMER'S



WEATHER PROVERBS

**If the first of July
it be rainy weather,
it will rain more or
less for four weeks
together.**

**Forked lightning at
night, the next day
clear and bright.**

**Rain is likely to com-
mence on the turn of
the tide.**

**Old moon mist ne'er
died of thirst.**

**When cattle remain
on hilltops, fine
weather to come.**

**A southerly wind
with showers of rain
will bring the wind
from west again.**

**If birds be silent,
expect thunder.**

It's good to be energy-wise



Energy efficiency considerations for homebuyers

Newer homes generally are more efficient due to recent building codes that promote higher levels of energy performance

Dear Pat: I recently became a real estate agent and several of my clients have been asking about the energy efficiency of the homes I show them. Do you have any suggestions about energy-related questions I should help my clients consider before they purchase a home? – Sharon

Dear Sharon: It's great to hear that you want to help inform your clients. Many homebuyers don't usually consider energy costs when looking at potential homes — and electricity, gas and propane are significant expenses for any home. The average home costs approximately \$2,000 in energy expenses per year. Think about how much money that is over the life of the home!

Your clients' preferences for the kind of new home they want to buy can have a strong influence on energy performance. For example, the size of a home is one of the most important factors that will determine energy costs. As square footage increases, lighting requirements increase, and more importantly, the burden on heating and cooling equipment increases.

In general, newer homes have better energy performance due to advancements in building codes, but buying a new home does not guarantee efficiency. Building codes are not always enforced, and a minimum-code home is not nearly as efficient as homes built to a higher standard. For example, if energy efficiency or green features are a high priority for your clients, look for homes that have Energy Star, Built Green or Leadership in Energy and Environmental Design (LEED) certifications.

Newer manufactured homes are typically much more efficient than older manufactured homes but do not have to meet the same energy code requirements of site-built homes. Residents of manufactured homes spend about 70 percent more on energy per square foot of living space as residents of site-built homes. If your clients are considering a manufactured home, those built after 1994 or that have an Energy Star label have superior energy performance.

Once your clients are interested in a specific home, one of the first factors they should consider is how the energy performance of that home compares to similar homes. Although you may request electricity, natural gas or propane bills from the sellers so that your clients can estimate how much it will cost to heat and cool

the home annually, this is not a precise measure of home energy performance. The Home Energy Rating System (HERS) Index is like a "miles per gallon" rating for a home that allows consumers to comparison-shop based on energy performance, similar to the way they can comparison-shop for cars. A certified RESNET Home Energy Rater will need to inspect the home and develop a HERS rating. This rating can be done during the inspection process, or you may request the rating from the seller.

Although many homebuyers focus on energy features that have the strongest impact on the aesthetics of the home, such as windows and lighting fixtures, it's the hidden systems like appliances that have the most impact on energy performance. Heating and cooling systems consume about half of a home's energy use and are costly to replace.

Here are a couple of questions homebuyers should consider about heating and cooling:

- How old is the heating system? If the home's heating system is more than 10 years old, it may be necessary to replace it soon.
- What is the seasonal energy efficiency rating (SEER)? Find out the SEER for the home's air conditioning system. If the air conditioner has a rating of less than 8, you will likely want to replace it.

A home's building envelope insulates the home's interior from the outdoor environment and includes features like doors, walls and the roof. If the quality of the building envelope is compromised, it can contribute to higher heating and cooling costs.

R-value is the thermal resistance measurement used for insulation, indicating its resistance to heat flow. You may want to learn about the recommended R-value for homes in your area so you'll have a sense about the quality of a home's building envelope.

If your clients determine energy investments are necessary in a home they are considering, it can be helpful to call your local electric cooperative, as many of them can assist with energy audits and offer incentives to buyers for energy efficient heating and cooling equipment.

This column was co-written by Pat Keegan of Collaborative Efficiency. For more information on how to consider energy efficiency when purchasing a home, please visit: www.collaborativeefficiency.com/energytips.

Have more questions about energy efficiency for your home?



What are Cost-Based Rates?

Have you ever gone out to eat with a group and everyone orders something expensive except for you, and then the group decides to just split the check equally? That didn't seem quite fair, did it? When it comes to paying for fees or services, most people feel better when everyone pays their fair share. Many people are concerned if they feel they are subsidizing others.

A fundamental concept of cost-based electric rates is that to the greatest extent possible, each individual customer within a certain rate class should pay for the costs that they impose on the electrical system. In the case of Sac Osage Electric Cooperative, we sell over 90% of our energy to residential customers.

Like all rate classes, residential customers have 3 basic categories of costs.

- Customer Costs – Meter costs, billing costs, maintenance and other non-electric usage related costs.
- Demand Costs – Fixed investment-related costs such as the cost of power plants, substations, poles, wires and transformers.
- Energy Costs – A variable cost incurred due to the member's use of electricity. It is the portion of the wholesale power costs which includes fuel expenses.

Under our traditional two-part rate structure (availability charge and kWh charges), availability charges for Sac Osage Electric Cooperative only recover about half the Customer Costs. The remaining Customer Costs and Demand Costs must be completely recovered by declining block rates based on fluctuating kWh usage, many times effected greatly by weather. For decades, however, this system has been the best billing method that was available.

Depending upon the energy usage and load pattern of a customer, by recovering about half of the Customer Costs and all of the fixed Demand Costs through kWh charges, a cost-shift (or subsidy) can occur.

In recent years we have seen great advances in metering technology due to automated meter reading (AMR) and advanced metering infrastructure (AMI). Because of these advances, cost-based rates are now feasible through the use of a three-part rate structure (availability charge, kW demand charge, and kWh charges). This structure can more accurately reflect the actual costs each individual customer imposes on the electrical system. Thus, an appropriately structured three-part rate can collect revenue in a more equitable way.

Plans are being developed to integrate this new metering technology into Sac Osage Electric's billing system, allowing us to design the fairest possible cost-based rate structure for its members.

Do portable air conditioners and dehumidifiers make sense?

Portable air conditioners are free-standing floor units that don't have to be installed in a window. They can be effective in either supplementing a central unit or cooling a single room.

If the portable unit is operating as a true air conditioner through a heat exchange process, then it needs venting through one or two exhaust hoses. These can be easily installed in a room window with a window kit or to another location. If the portable unit is simply removing humidity from the air, thus making it feel cooler, then exhaust hoses are not required.

It's true that dehumidifying — removing moisture from the air — makes us feel more comfortable. To boost efficiency in air conditioners, according to the Missouri Department of Natural Resources, many highly efficient air conditioners do not dehumidify effectively.

If you need to remove moisture from your house — evidenced by musty smells, a clammy feeling to the air, condensation on windows and wet stains on the wall or ceiling — look for ENERGY STAR-qualified dehumidifiers. Look for units that remove the most pints of water per hour.



SAFETY FIRST!

In auto accidents involving power poles, it's almost always safest to stay inside the vehicle. Call for help and wait for utility crews to arrive, or you could become an additional victim in need of rescue.



Energy Efficiency

Tip of the Month

Going on vacation? Give your electric bill a break too by making sure "phantom loads" don't continue to use electricity while you are gone. This can be as simple as plugging electronic devices such as TVs and cable boxes into power strips and flipping the switch to off before you leave.