



July 2012

**RURAL**  
MISSOURI

# Sac Osage Electric Cooperative

P.O. Box 111, 4815 E HWY 54  
El Dorado Springs, MO 64744  
Telephone: 800-876-2701

Visit us on the Web - [www.sacosage.com](http://www.sacosage.com)

# News

## YOUTH TOUR



## C.Y.C.L.E



For over forty years Rural Electric Cooperatives have been sponsoring trips for the 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. The students wrote essays challenging them to think about "If chosen as Youth Tour delegate you will be traveling to Washington, D.C. to experience and learn about American's rich history. What moment in American history do you wish you had been a part of and what would you have contributed?"

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

Congratulations to Courtney Hooper of El Dorado Springs R-II High School who was awarded an all-expense paid trip to Washington, D.C.. Courtney joined more than 80 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.

The first runner up delegate was Grayson Jamroch of



Grayson Jamroch and Courtney Hooper

Stockton High School. She was awarded an all expense paid trip to attend the Cooperative Youth Conference and Leadership Experience (C.Y.C.L.E) in Jefferson City, Missouri.

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.

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

## A toast

On July 4, we should raise our glasses and drink to the health of our troops. Oddly, the custom of drinking to one's health came from the frequent violence associated with drinking. The ancient Greeks poisoned wine for political gain, but a host who wanted to reassure his guests



would pour from a common decanter and take the first sip, literally, to his guests' continued health. The term "toasting" took its name from the ancient Roman custom of dropping a burned piece of toast into a cup of wine. The charred bread improved the flavor.

## Definition of a poet

Not many of us think of E.B. White (born July 11, 1899) as a poet, though we may have known him as an essayist, humorist or columnist. From an early age, he'd fallen "into questionable habits. I liked to rhyme one word with another." In his preface to "Poems & Sketches of E.B. White," he defined his terms, "To me, poetry is what is memorable, and a poet is a fellow or girl who lets drop a line that gets remembered in the morning." And sketches, he said, meant "everything in this collection that is not a poem."



## Historical wrong turns



The birth of "gerrymandering," the takeoff of "Wrong Way Corrigan," and the end to nickel-and-diming all share July 17th anniversaries. Elbridge Gerry, born July 17, 1744, gave his name to gerrymandering (trying to manipulate an electoral area) when he created a salamander-shaped district to favor his party. On July 17, 1938, pilot Douglas Corrigan took off from New York heading for California, but ended up a day later in an unexpected destination — Ireland. On July 17, 1997, Woolworth's announced that it was closing its 400 five-and-dime stores, ending a 117-year American tradition.

For recipes, gardening tips and weather forecasts, visit:  
[www.almanac.com](http://www.almanac.com)



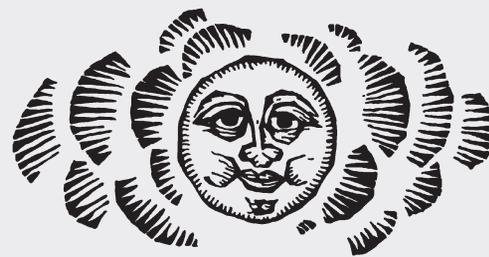
### Recipe for Colorful Vegetable Salad



- 1 head cauliflower
- 1 head broccoli
- 1 pound carrots
- 1 pound fresh peas
- 1 bunch celery
- 1 yellow bell pepper
- 1 red bell pepper
- Vinaigrette of your choice

Cut the vegetables into bite-size pieces. Steam the cauliflower, broccoli and carrots until just barely tender. Do not overcook. The peas, celery and peppers should remain raw. Toss all together with the vinaigrette; chill for at least 4 hours. Serve with grilled fish or meat. Makes 10 servings.

## THE OLD FARMER'S



# WEATHER PROVERBS

**In July, shear your rye.**

**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 commence on the turn of the tide.**

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

**St. Swithin's Day (July 15), if ye do rain, for 40 days it will remain.**

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

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



## H O M E C O M F O R T

# Heat your house with water

*Using a reverse cycle chiller with your home's heat pump can be a less costly alternative*

**Dear Jim: We have an old, inefficient electric resistance furnace. I have heard there are some new types of heat pumps that use a big water tank and don't need backup heat. How do these systems work, and are they efficient? — Carter N.**



by Jim Dulley

**D**ear Carter: Although electric resistance heating can be relatively expensive to operate, it is 100 percent efficient — that means all the electricity you pay for ends up heating your house. With a gas or oil furnace, you lose some heat out of the flue. The problem with electric resistance heating is it costs more to produce 1 Btu from electricity than it does by burning fossil fuels.

A heat pump can produce 3 Btu of heat for your house for each 1 Btu on your electric bill. This is because the heat pump does not actually create heat directly. It uses a compressor, coils and other equipment to draw heat from the outdoor air and pump it into your house.

The heat pump system you refer to is called a reverse cycle chiller. It basically uses a standard high-efficiency heat pump to produce heat during winter and cool air in the summer. A typical air-source heat pump heats or cools a refrigerant that flows directly through an indoor coil. Air blows over the coil to heat or cool your house.

A reverse cycle chiller heats or cools water in a small (20- to 40-gallon) insulated tank. The water then flows through the indoor coil. The entire system will cost 15 percent to 20 percent more to install than a standard heat pump/electric furnace combination.

The output capacity of a typical heat pump is sized for the cooling Btu requirements of the house. In most parts of the U.S., the heating Btu requirements are greater. To make up the difference, a backup electric resistance furnace is required during very cold periods. As the outdoor temperature drops, the heat output of the heat pump also drops — just as the heating needs of your house increase.

You might think you could install a larger capacity heat pump to provide enough heat for your house even on very cold days. This would be possible with an air-source heat pump, but it would not work well in the air-conditioning mode. An oversized air conditioner results in short cycles, indoor temperature swings and poor dehumidification.

The primary advantage of a reverse cycle chiller is it transfers heat to an insulated water tank. This allows you to install a heat pump with an extra-large capacity for adequate heating even in cold weather without the associated

summertime cooling issues. Many of the major HVAC manufacturers' heat pumps can be used with a reverse cycle chiller system.

During summer, this large heat pump cooling capacity chills the water in the insulated tank to 40 degrees or so. The chilled water is run through a coil in the blower system, which cools and dehumidifies the indoor air just like a standard heat pump. The heat pump can cycle on and off as needed to chill the water in the tank independently of the indoor blower. Therefore, the blower can run as long as needed to provide comfort and efficiency.

Another key advantage of having the heated water tank is its wintertime defrost mode. A heat pump regularly switches to the cooling mode to defrost ice that collects on the outdoor condenser coils. During this time, expensive electric resistance heat comes on or chilly air blows out the registers.

With a reverse cycle chiller, the heat to defrost the coils comes from the heated water tank so warm air continues to blow out of the registers. During regular operation, the temperature of the air coming out of the registers is also warmer than with a typical air-source heat pump.

In addition to eliminating or greatly reducing the use of backup resistance heating, a reverse cycle chiller provides options for efficient heating. Because the heat is coming from the insulated water tank, you can select different types of heating for different rooms. The hot water can be piped through a heat exchanger (fan coil) and typical ductwork to

produce heated air.

It may be more efficient and comfortable in some rooms to use radiant floor heating. For this heating method, the hot water flows through pipes in the floor. It's one of the most efficient heating methods because you can feel comfortable at a lower room air temperature. This option is more feasible for new construction, but it can be used if you have a basement providing access to the underside of the floor above.

During summer, an optional refrigeration heat reclaimer (similar to a geothermal desuperheater) can be used. Instead of the heat pump exhausting the heat to the outdoor air in the cooling mode, it can be used to heat your domestic water for free. During winter, the heat pump can be used to heat your domestic water in addition to the house. This produces hot water at a COP (coefficient of performance) of between 1.5 and 3.0, as compared to a standard water heater at only 1.0.

The following companies offer reverse cycle chiller systems:

- Aqua Products, 800-840-4264, [www.aquaproducts.us](http://www.aquaproducts.us);
- Multiaqua, 864-850-8990, [www.multiaqua.com](http://www.multiaqua.com); and
- Unico System, 800-527-0896, [www.unicosystem.com](http://www.unicosystem.com).

*Have a question for Jim? Write to: James Dulley, Rural Missouri, 6906 Royalgreen Drive, Cincinnati, OH 45244 or visit [www.dulley.com](http://www.dulley.com).*



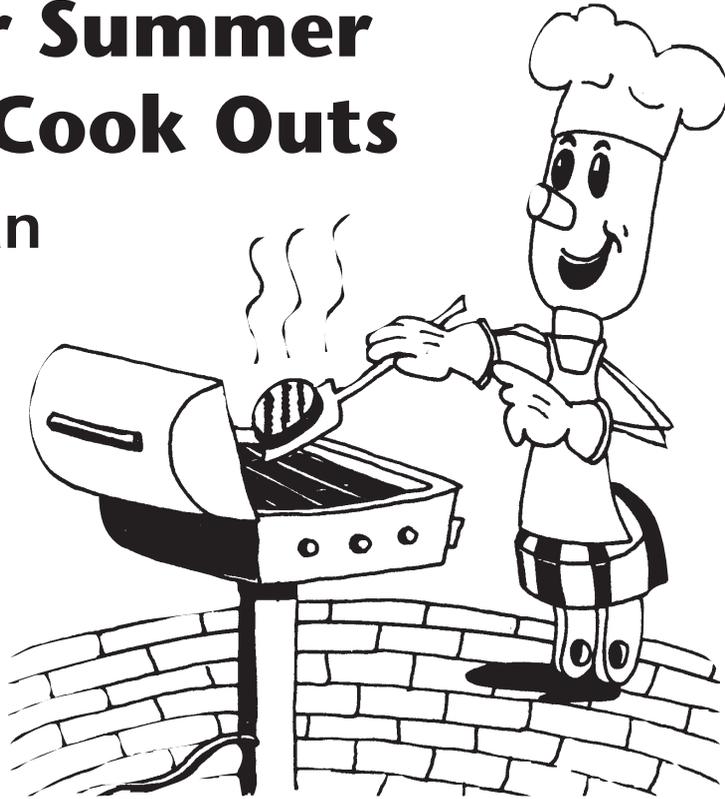
photo courtesy of Aqua Products

Many of the major HVAC manufacturers' heat pumps can be used with a reverse cycle chiller system, which can not only help heat and cool your home more efficiently but also provide domestic hot water.



## For your Summer Sizzlin' Cook Outs

Purchase an Electric Grill from Sac Osage



Perfect for your outdoor barbecuing needs. All of Meco's grills are UL certified, fit into any standard 120-volt grounded plug, and are safe for outdoor cooking.

This summer, you could host the ultimate barbeque with an electric grill purchased from Sac Osage Electric Cooperative.

# Turn in a thief

## and earn a reward up to

# \$1,000

Theft and vandalism at your electric co-op are on the rise, and it's costing everyone. Now you can help strike back at these thieves. If you see suspicious activity near power lines, substations, vehicles or offices owned by electric cooperatives, call the toll-free hotline number below. If your tip leads to arrest and conviction, you may earn a reward of up to \$1,000. The money is yours to keep, but the savings belong to all.

### Copper theft:

- Is a felony
- Could be classified as terrorism
- Is a direct cost to co-op members
- Could be FATAL
- Could cause power outages

**Call the Theft Reward Hotline at 1-855-COPPER9 (1-855-267-7379)**