RURAL MISSOURI

Sac Osage Electric Cooperative News

March 2013

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

It Takes A Cut Above To Stay A Step Ahead

For years, trees have been appreciated for their shade, planted for their fruit, harvested for their wood. Trees contribute to our health, beautify our homes and farmsteads, help regulate our atmosphere, and can even reduce our electric bills, if carefully planned and planted.

However, trees can also cause headaches. Their roots can damage foundations. They can topple in storms and destroy buildings. And, their high-reaching limbs can interfere with the reliable delivery of electricity to your home.

Limbs and leaves in contact with power lines can conduct electricity, creating a potentially dangerous condition for anyone who comes near. Tree-to-line contact also contributes to what electric system professionals call "line loss." The term refers to electricity created at a generating plant that does not reach its destination, an inefficiency that increases costs for us and for you.

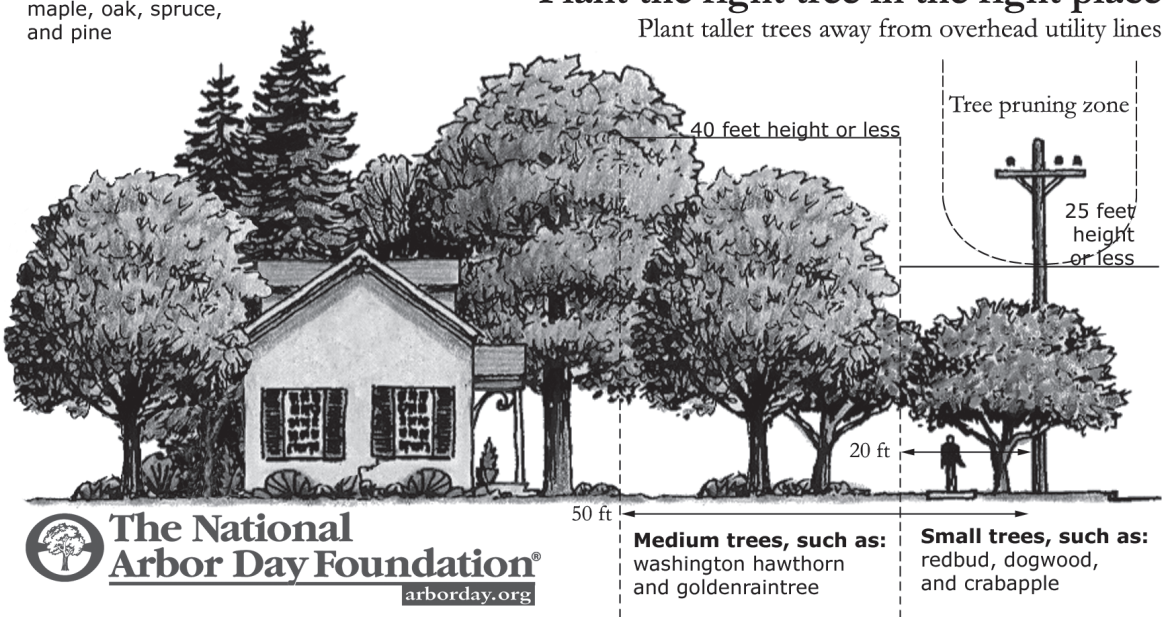
Sac Osage Electric Cooperative strives to be a good steward of one of nature's gifts. However, we must maintain the integrity of the system by regularly trimming and pruning trees. Crews and contractors who work for us to clear rights of way are trained to work around high-voltage lines safely and preserve the plants when possible. Cooperatives that keep their rights of way clear can demonstrate the benefits in reliability and savings to their members.

Vegetation management for distribution lines is addressed through the National Electric Safety Code (NESC). Distribution lines deliver electric energy to cooperative members. Although there are no specific requirements, NESC states, "vegetation that may damage ungrounded supply lines should be pruned or removed." In addition to safety concerns and outage prevention, vegetation management is necessary to reduce unexpected costs to electric cooperatives. By keeping rights of way clear, co-op crews are able to restore power more quickly, improve reliability, and prevent expensive repairs to systems damaged by fallen trees or neglected vegetation.

And, please, if existing trees are close to the lines and need trimming, don't try to tackle the job yourself. Every year, amateur tree trimmers are hurt or killed when trying to clear limbs near power lines. Call the right-of-way professionals at Sac Osage Electric.

If you decide to plant a tree, you can help make our crews' tasks easier. Look up for power lines.

Think about the mature height of the tree. Don't plant trees that could eventually reach up and touch power lines.



Telephone Survey

During the next few weeks, your local electric cooperative will be participating in a telephone survey that is conducted every three years to determine the quality of service provided to you, our member. This survey will ask several questions to measure your energy usage and satisfaction with your cooperative. It should take between twelve and fifteen minutes to answer all the questions. We appreciate and thank you for taking the time to provide this valuable information. Survey results will help us address future needs to provide you with reliable electricity and in lobbying Congress to insure you have the lowest possible costs. If you have any questions about the survey, please contact our office.

Youth Tour Deadline

There is still time if you are a high school junior to enter the 2013 Youth Tour Program.

It is a chance to take a "trip of a lifetime" to our nation's capital this summer. **"How could Sac Osage Electric as Member Owned Cooperative keep electric affordable and reliable?"** is the question you will need to answer as you enter the essay contest for an opportunity to travel along with approximately 85 other students from across Missouri to Washington D.C. in June. Deadline for entering is Friday, April 5th. For more information you may visit our website www.sacosage.com or call Janna Dody or Aaron Ash at 417-876-2721.

The OLD FARMER'S ALMANAC
This month with
March 2013

Town meeting day

This year, March 5 marks Town Meeting Day in Vermont, among other places. In rural communities across New England, Town Meeting Day is a chance to get out and about in the name of democracy and shed a bit of winter cabin fever. Local scuttlebutt is considered, sides are taken and the not-so-silent majority has an opportunity to sound off. Mud season seems a suitable time for this foray into the community, although snow jobs are still possible, and there's a danger of icy glares.

Love in springtime

The vernal equinox occurs on March 20. In honor of spring, we offer some folklore tips on how to attract and keep the attentions of your beloved. Eat tomatoes, potatoes, hot spices, oysters and octopus. Or, put marigolds in your wedding bouquet. Keep in mind, however, that romance can be hazardous. New World settlers banned public acts of affection. When a sea captain returned to Boston after three years at sea, he kissed his wife in public and was sent to the stocks for "lewd and unseemly behavior."

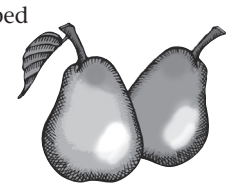
Windy wisdom

Weather lore says of March, "In like a lion and out like a lamb." This month's winds usher in warmer spring weather to come. In 1805, Admiral Sir Francis Beaufort devised a wind velocity scale, which described a wind between 39 and 46 mph as a "fresh gale." According to the scale (used by the National Weather Service in a modified form), wind speeds of 73 mph and higher are classified as a hurricane. In between the fresh gale (or gale) and the hurricane are the strong gale (47 to 54 mph), the whole gale (or storm, 55 to 63 mph), and the violent storm (up to 72 mph).

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

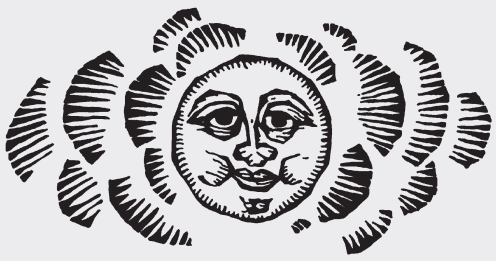
Recipe for
Pear Ginger Chutney

5 cups peeled, cored and chopped pears
1/3 cup chopped ginger root
1 lemon, seeded and chopped
2 garlic cloves, minced
1 cup brown sugar
1 cup currants
1/4 teaspoon cayenne pepper
2 tablespoons curry powder
2 red peppers, seeded and chopped
2 cups cider vinegar



Combine all ingredients in a saucepan and simmer until sauce thickens, about 2 hours, stirring frequently. Sterilize jars according to manufacturer's directions. Put hot chutney into dry, sterilized jars, leaving 1/2-inch headroom; wipe the rims clean and seal the jars. Process jars in a boiling-water bath for 15 minutes. Remove jars and let cool. Makes 3 pints.

THE OLD FARMER'S



WEATHER PROVERBS

When the wind veers against the sun, trust it not, for back 'twill run.

When sheep collect and huddle, tomorrow will become a puddle.

If the wind is northeast at the vernal equinox, it will be a good season for wheat and a poor one for corn.

Dust in March brings grass and foliage.

The moon, her face if red be, of water speaks she.

Rheumatic pains indicate bad weather.

In March much snow, to plants and trees much woe.

Breathe easier at home

Reduce indoor pollution and improve your HVAC's efficiency with a central air cleaner

Dear Jim: I want the best air quality at home for my family. Which type of central air cleaner is best? Will installing a central air cleaner make my heating and cooling more efficient? — Steve D.

by Jim Dulley

Dear Steve: Indoor air quality is becoming a greater issue for families as homes become more airtight for energy efficiency. With all the synthetic products used in homes today, indoor air often is more polluted and potentially hazardous to your health than outdoor air.

Installing a high-quality central air cleaner or filter in the furnace/air-conditioning duct system does not technically improve the efficiency of your heating and cooling system. What it will do is keep the units running at their highest original efficiency levels. Most air cleaners use little or no electricity to operate.

photos courtesy of Aprilaire

A pleated media air cleaner usually requires professional installation. Because such systems are thicker than the more common standard fiberglass filters, duct modifications often are needed.

With a lower-quality air cleaner, such as the standard one-inch-thick fiberglass filter, dust and dirt can build up on the heat exchanger and cooling coil surfaces. This dust creates a layer of insulation so that heat is not transferred as effectively as it should be. This reduces the overall energy efficiency.

If you don't change the filter often enough, dirt can clog the many pores in the filter medium and reduce air flow through it. This further reduces efficiency because the heating and cooling coils and heat exchangers are designed for a specific air flow rate.

During the past several years, manufacturers have begun producing new, super-efficient central air cleaners. They use a combination of electronic air charging and filter media to trap almost all of the tiniest particles in the air. They can even catch flu viruses and bacteria as they pass through the duct system.

Standard electronic air cleaners use wires to give air particles a negative charge. A collection cell has plates with a positive charge so the negatively charged particles stick to it. When the collection cell is dirty, you can wash it in the dishwasher or bathtub and slip it back into the unit.

For most people, this standard type of electronic air cleaner is adequate. I use one in the heat pump in my own home. For those with allergies to some of the smallest particles in indoor air, the new electronic air cleaners with the charged filter media may be more effective. The electricity cost to operate either type of electronic air cleaner is not significant.

It's important to regularly clean the collection cell of a standard electronic air cleaner to keep it operating at maximum performance and reduce the amount of ozone generated. When the cell gets dirty, the charge can arc from the wires to the collection plate. This has the potential to produce excessive concentrations of ozone gas, to which some people are sensitive. I set mine to a lower charging voltage to reduce ozone.

Another option is a pleated media air cleaner. This type of unit is less expensive and relies on many square feet of folded filter material to catch particles as the air passes through it. There are various levels of media quality and price. The cleaning effectiveness of various models can be compared by their MERV (minimum efficiency reporting value) rating.

This high-efficiency pleated media central air cleaner can be operated with a remote control even when your HVAC system is not running.

If you don't want to have the ducts modified to install a new air cleaner, consider a self-charging electrostatic model. This slips into the existing furnace filter slot and is many times more effective than a fiberglass filter. Just the air flowing over the resin filter material creates a charge that tends to trap more dirt particles.

Another option is a bypass HEPA (high efficiency particle air) cleaner that has its own air circulation motor. A HEPA is a very dense media filter, which makes it very effective, but it may create too much resistance for the furnace blower to force adequate air flow through it. The bypass design has its own blower so the air flow through the coils or heat exchanger is not impeded.

With any central air cleaner, it cleans only when a furnace/air conditioner blower is running. To get around this, Aprilaire offers a new controller that mounts next to the wall thermostat. It allows you to automatically run the blower for any length of time when no heating or cooling is needed.

The following companies offer whole-house air cleaners:

- Aprilaire, 800-334-6011, www.aprilaire.com;
- Dust Free, 800-441-1107, www.dustfree.com;
- Lakeair, 800-558-9436, www.lakeair.com;
- Pure Air Systems, 800-869-8025, www.pureairsystems.com; and
- Trane, 888-232-5290, www.trane.com.

Have an energy-efficiency question for Jim? E-mail him at contact@dulley.com or write to: James Dulley, Rural Missouri, 6906 Royalgreen Drive, Cincinnati, OH 45244. Visit www.dulley.com to read past articles on energy efficiency.

Sac Osage Electric Cooperative News

Thinking WIND SOLAR Power

Net Metering—Distributed Generation
Net-Metering & Easy Connect Act

If you are interested in applying for interconnection to Sac Osage Electric Cooperative's electrical system, you should first contact the co-op and ask for information related to the interconnection of a parallel distributed generation unit (i.e. hydrogen fuel cell; or generating system powered by sun, wind or biomass) to the co-op's system. It is important you understand this information before proceeding with the project.

Any consumer who connects in parallel phase and synchronization with any retail electric supplier without written approval can be immediately and without notice disconnected from electric service.

Missouri's Net Metering Rules and Regulations are based on legislation effective January 1, 2008. The "Net-Metering and Easy Connect Act" states that the distributed generation is intended to primarily offset part or all of the customer-generator's own electrical energy requirements. Full retail price is paid or credited for all energy put on the grid up to the amount purchased that month from the utility. For example, all kilowatt-hours put onto the grid by the consumer will be subtracted from the total amount purchased that month from the cooperative. The customer will pay only the "net" difference as calculated by using the applicable standard rate. Avoided cost is credited for all energy put on the grid in excess of that month's purchase. This amount above what is purchased can remain as a credit on the customer's bill for up to a maximum of one year. That month's credit will expire if not used within one year or at the time of disconnect. All standard service availability fees still apply.

Avoided cost is calculated monthly by Associated Electric Cooperative Inc. (AECI), SOCE's power supplier. This cost is the actual cost of generating a kWh of electricity that month using all sources of generation used that month by AECI. Any electric energy generated at the member generators site must be purchased by AECI. The Co-op is only facilitating the billing/credit for the member-generator.

It is no longer a requirement for the customer-generator to purchase liability insurance for the distributed generation unit. In fact, the law states that the manufacturer of any electric generation unit may be held liable for any damage to property or person caused by a defect in the generation unit.

The cooperative still strongly suggests that a customer-generator considers liability insurance. If there were a malfunction, the customer-generator would likely be named in a lawsuit as a channel to get to the manufacturer. The law clearly states that the retail electric supplier shall have no liability absent of clear and convincing evidence of their fault. As a protection for the Missouri customer-generator, any seller, installer, and/or manufacturer who misrepresents any electric generation the state attorney general upon report may investigate unit's safety or performance standards.

All of the electricity generated by the distributed generation unit will first be used at the member-generator's site. Any excess electrical power will go back on the grid and be recorded with the meter located in the member-generator's meter base.

Steps to take if you are interested in Distributed Generation at 100kW or less

1 Talk to the member services department. They will provide information to help you make an informed decision.

2 Make sure you are involved with a reputable dealer and installer and they understand all local codes as well as the requirements of all applicable state statutes, rules and regulations. These requirements are intended to maintain safety and system reliability.

Some of the requirements include the following:

UL 1741, IEEE 929-2000, IEEE 1547. The hardware and its installation must comply with all applicable National Electric Safety Code (NESC), Institute of Electrical and Electronics Engineers (IEEE), and Underwriters Laboratories (UL) requirements. The requirements also include a visible, lockable safety disconnect of the distributed generation unit accessible to the co-op at the metering point or other location as agreed to between the member and co-op.

3 Check with your insurance agent about liability insurance on a customer-generator distributed generation unit. This is not required but highly recommended.

4 Acquire an Application and Agreement For Interconnection and Net Metering of Systems With Capacity of 100kW or Less. This will require you to give the cooperative:

—Your personal information

—The system information including but not limited to system type, manufacturer, system plans and specifications, county/city permit numbers, IEEE 1547 compatible inverter details, disconnect location, and a site-specific power flow diagram.

—Installer information as well as the identity and qualifications of the licensed electrician or engineer who will certify the installation.

—If the rated output of the system is less than or equal to 10 kW, the co-op has 30 days from receipt of the application to approve or deny the application. If more than 10 kW, the time frame is 90 days. If denied, the reason(s) will be provided.

5 Contact the local inspection service , if applicable, for a permit.

6 Install the system.

7 Contact the local inspection service ,if applicable, for a final inspection. Also, when the system is installed in compliance with the plans and specifications as described in the application, the member-generator needs to complete the application and forward to the Cooperative for review and completion of Section I.

8 The Co-op will complete Section I, and with the arrangements made for payment of any applicable fees and/or aid to construction costs, the Co-op will, within 15 days, interconnect the member-generator system with an active service to the Co-op's electrical system.

The member-generator is requested, at least once every year, to conduct a test to confirm that the net metering unit automatically ceases to energize the output (interconnection equipment output voltage goes to zero) within 2 seconds of being disconnected from the retail electric power supplier's system. The member-generator should maintain a record of these tests and, upon request, shall provide a copy of the test results to the retail electric supplier.

Note: This is a general overview of the process for interconnecting for net metering. Please contact the Cooperative for complete details.

Statement of Non Discrimination

Sac Osage Electric Cooperative, Inc. is the recipient of Federal financial assistance from the Rural Utilities Service (RUS), an agency of the U.S. Department of Agriculture and is subject to the provisions of Title VI of the Civil Rights Act of 1964, as amended, Section 504 of the Rehabilitation Act of 1973, as amended, the Age Discrimination Act of 1975, as amended, and the rules and regulations of the U.S. Department of Agriculture.

In accordance with Federal Law and the U.S. Department of Agriculture's policy, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, religion, age, or disability (Not all prohibited bases apply to all programs).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410, or call 202-720-5964 (voice or TDD). USDA is an equal opportunity provider and employer. The person responsible for coordinating this organization's nondiscrimination compliance efforts is Thomas R. Killebrew, General Manager of Sac Osage Electric Cooperative, Inc. Complaints must be filed within 180 days after the alleged discrimination. Confidentiality will be maintained to the extent possible.