In this issue:

| January 2014 | Heating with wood | 1 |
| Marketing Sheep & Goats/ Poinsettia care | 2 |
| Soil Sampling do’s and don’ts | 3 |
| Financial Resolutions/ Building a corral | 4 |

### Heating Your Home with Seasoned Wood

**By: John Hobbs**

Does the higher cost in heating fuel prices or electricity have you dusting off that old wood stove in the corner or researching the latest wood stove technology? If so, then you’ll also want to spend some time contemplating where you are going to get your firewood.

Wood is plentiful and accessible fuel for many Missourians and for those who think “green”; it is a renewable resource as compared to coal or oil. As a rule of thumb, a cord of air-dry hardwood fuel yields about the same usable heat as 250 gallons of propane (LP), a ton of hard coal, or about 6500 kilowatt hours of electricity. By comparing the cost of other fuels with cordwood, you can figure out the savings you’ll realize by burning wood to heat your home.

Don’t expect to go out in the backyard when the weather turns cold to cut down a few trees to saw up and throw into the new stove. It takes time to cure and dry firewood. Burning green firewood is very inefficient, and it can be unsafe. The moisture content of green wood is 60 to 80 percent of the total weight of a cord of firewood depending on when it was cut. Evaporating all that water in your stove will use as much as 15 percent of the potential heat in your firewood, so you are better off letting nature do it for you by air-drying your wood before you burn it. Burning green wood also promotes a buildup of creosote in the chimney, increasing the risk of a dangerous chimney fire.

It will take about six months to air-dry a cord of cut and split wood to 30 percent moisture content and nine months to reach 20 percent moisture content. So if you haven’t started cutting and splitting your wood pile, you won’t catch up before cold weather arrives this fall. That means you’ll probably need to buy dry firewood this year and plan on using any wood you cut now during the next heating season.

What is the best wood to burn? Not all firewood is created equal. Some species of trees are denser and thus able to produce much more heat per cord of wood. A cord is the amount of wood in a well-stacked woodpile measuring 4 feet wide by 8 feet long by 4 feet high. Following are heat values in million BTU’s (per cord for various species of tree). The higher the BTU value, the more potential heat generated.

#### Wood type

| Ash, Green | 23.6 |
| Elm, American | 20.1 |
| Hackberry | 21.6 |
| Red Oak | 25.3 |
| Locust, Black | 28.1 |
| Hickory | 29.1 |
| Maple, Silver | 20.8 |
| Mulberry | 25.3 |
| Oak, Post | 27.0 |
| Sycamore | 20.7 |
| Osage-orange (Hedge) | 30.7 |

Sparks, do not use in open fireplace.

One should buy firewood from someone in your county or near your home. Tree-killing insects and diseases can lurk in firewood. These insects and diseases can't move far on their own, but when people move firewood they can jump hundreds of miles. New infestations destroy our timber, property values, and cost huge sums of money to control. These include the emerald ash borer, thousand canker disease of walnut, the Asian longhorned beetle and others.

Heating a house with wood is relatively clean and economically beneficial. Burning wood is physically healthful, and experiencing it is comforting to the body and soothing to the spirit. Wood heat can provide many hours of enjoyment during the winter months; however, woodstoves require extra care in installation, operation and maintenance as compared to gas, oil, or electric heating units. Please observe suggested safety precautions. For more information on wood heat contact your county extension center.

Reference used: MU Guide G5450 “Wood Fuel for Heating”.

University of Missouri, Lincoln University, U.S. Department of Agriculture and Local Extension Councils Cooperating
Plan Ahead for Marketing Your Sheep and Goats
By Jodie Pennington

Goats and, to a lesser degree, sheep have exhibited seasonal price and production patterns that trace back to data that is recorded since the 1940’s. Traditionally, seasonable prices during the year usually vary at least 25% price difference, with the highest price being in March-April and the lowest market price in October. However, in recent years, the shortage of goat meat has resulted in greater changes from this price pattern. For the last 2-3 years, the price may vary by 50% from the highs before Easter to the lowest prices of the year. Much of the price fluctuation relates to the holidays of the ethnic calendar where meat consumption increases. Because goats (and also sheep) are seasonal breeders coming into heat primarily from September to December, goat production leads to most kids being born five months later in late winter to early spring. The kids then are weaned in late summer or fall. This creates a market kid (hence fresh goat meat) shortage during the late winter-early spring months, and gluts the market during late summer and fall. Coupled with that, Easter (the Western or traditional Easter) has the strongest goat meat demand in the U.S. Usually, market kid and goat meat prices tend to reach their peak just before the Western Easter (March-April), drop significantly during June, then continue downward through October-November, then begin rising toward the Christmas season (December). Fresh goat meat shortages force the prices to continue upward until they peak again during the Easter season (March-April). Lambs follow a similar pattern but with less variation in prices. Latinos tend to eat goat meat as their traditional meat. They are the nation’s largest minority group, also the fastest growing population, and provide a significant consumer base for goat meat products. According to the U.S. Census Bureau (2013), the Latino population in 2012 was 53 million, making up 17% of the U.S. population. Latino population growth between 2000 and 2010 accounted for more than half of the nation’s population growth. Much of the goat meat is consumed around festivals around holidays and birthdays. Holidays celebrated include New Year’s Day, Easter, Cinco de Mayo (May 5), July 4, and Christmas. One concern with the Latino or Hispanic population is that they will grow accustomed to less expensive hamburger and decrease goat consumption. The Muslim population makes up about 3-4 percent of the U.S. population, thus having a significant impact on goat and sheep meat consumption. Ramadan is a month-long holiday where Muslim/Islamic families celebrate the beginning and end of Ramadan. Festival meals take place each night since no food is consumed between sunrise and sunset. Male or female kids that are less than one year old and weigh 60 pounds are desired, but weaned kids between 60-120 pounds may be acceptable. Between the beginning and end of Ramadan, meat consumption is omitted from the diet, thus decreasing consumption of goat and lamb. Ramadan falls on the ninth month of the Islamic calendar. For the past few years, Ramadan has coincided with September - November, the months when most kids are weaned and sold (during the period when monthly prices fall or “bottom” due to seasonal weaning and sales production pressures); however, for the next few years, Ramadan will be earlier in the calendar year (beginning on June 28 in 2014 and moving earlier).

The movement of Ramadan toward summer and spring months (due to the lunar calendar) may improve the prices of kids sold during this period. Traditionally, Ramadan is a period of lower sheep and goat prices. Since Ramadan will move earlier in the upcoming years, commercial producers may want to breed for fall-early winter kidding to take advantage of the improved late winter-early spring market. They may also want to breed to sell market kids at the beginning and end of the Ramadan season, particularly in the upcoming years as Ramadan moves to months that are earlier in the calendar year when market kid prices are historically higher. It is important to consider that the weather can be a major factor in determining baby kid survival during the winter months. Additional facilities may be needed to keep the does and kids protected from the weather. How the changing dates of Ramadan and the increased demand for goat meat will affect the best times to market goats remains to be seen. Yet, producers should plan their marketing strategies around the traditional ethnic holidays—which means marketing 2-4 weeks before those holidays.

Poinsettia Care
by John Hobbs

It’s about time for flowers used during the holiday season to come on the market. Poinsettias are the leading seller of potted flowering plants. Modern poinsettia varieties stay attractive for a long time if given proper care. Place your poinsettia in a sunny window or the brightest area of the room, but don't let it touch cold window panes. The day temperature should be 65 to 75 degrees F. with 60 to 65 degrees at night. Temperatures above 75 degrees will shorten bloom life and below 60 degrees may cause root rot. Do not place the plant on top of a TV set because it becomes too warm while it is on. Move plants away from windows at night or draw drapes between them to avoid damage from the cold. Poinsettias are somewhat finicky in regard to soil moisture. Avoid overwatering as poinsettias do not like “wet feet.” On the other hand, if the plant is allowed to wilt, it will drop some leaves. So how do you maintain a proper level of moisture? Examine the potting soil daily by sticking your finger about one inch deep into the soil. If it is dry to this depth, the plant needs water. When it becomes dry to the touch, water the plant with lukewarm water until some water runs out of the drainage hole, then discard the drainage water. Source: K-State
The Importance of Soil Sampling

By: Jill Scheidt

Obtaining a quality soil sample is vital for receiving accurate nutrient recommendations for your field. “In a 20 acre field, there are approximately 40 million pounds of soil. Of those 40 million pounds, you send 1 pound to the lab for results, so make sure that one pound represents the field well.

Soil samples need to be taken every 3-4 years; sampling costs range anywhere from 14-20 dollars depending on where you go and which nutrients you want to test. The average soil test assesses nitrogen, potassium, phosphorus, calcium, magnesium, organic matter, neutralizable acidity, cation exchange capacity and pH levels. Micro nutrients are not tested for unless the producer requests it at an additional charge.

Different soil types and soil needs are in the same pasture or field. Several samples bags need to be collected if the land is uneven. For example, if a pasture was once 2 pastures, separate samples should be taken on either side of the old fence line. If there is high animal traffic in a pasture, that area should be sampled separately as well. Hillsides and waterways should be sampled differently as well. If a pasture has been converted to a crop field, separate samples need to be taken if a pond or tree line has been removed. Soil nutrient properties can fluctuate throughout the year depending on the season. When soil sampling it is important to take samples at the same time of year, each year samples are taken to provide consistency. The best time to take a sample for forages and spring-seeded crops is when the field is idle; usually after harvest in the fall or winter. For fields with winter wheat and fall-seeded crops, sampling during the idle time in the summer is best. Pre-plant or pre-side-dress nitrogen samples for corn should be taken in the spring as close to planned nitrogen application as possible. It is best to wait at least three months after application of phosphorus fertilizer, lime or manure before taking a soil sample.

Sample cores need to be at least 6-8 inches deep; too shallow of a sample can cause an overestimate of soil fertility levels. Every core should be the same depth and quantity to provide uniformity. A zigzag pattern of random soil sampling across the field works well in most situations. If using a shovel instead of a soil probe, dig a hole and slice off one side. Collect 10-20 cores in a bucket, crumble and mix them well. Then remove sticks, rocks and grass and place about one pint of soil into a plastic bag or soil sample box. Always label the bag in reference to where the sample was taken in order to identify it when the results are received. The number of cores collected should reflect the variation of the land and land history; more samples if the land is varied, less if it is more uniform, it is better to take to many samples as opposed to not enough.

Grid soil sampling, which is sampling the field in 2.5 acres per sample, is economical when used in high yielding fields; especially when significant variations in soil tests are anticipated. It can also be useful in a field where the history is unknown. Grid soil sampling provides the most accurate results when paired with a variable rate spreader.

Interpreting soil tests are the most difficult part of the process. The first section of the soil test report, given by University of Missouri laboratory, represents the current level of nutrients. Macro nutrients are expressed in pound per acre and micro nutrients are expressed in particles per million (ppm) and rated on a scale of very low, low, medium, high, very high, to excessive.

The lower section is the recommendations of the nutrients expressed in pounds per acre according to the desired yield goal and crop type. Limestone tonnage recommendations can be calculated by dividing the Effective Neutralizing Material (ENM) by the guage of soil particles per million (ppm) and rated on a scale of very low, low, medium, high, very high, to excessive.

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Table 2 Desired soil salt pH (pHs) ranges for Missouri crops

<table>
<thead>
<tr>
<th>Crop</th>
<th>Soil region</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa and alfalfa-grass establishment</td>
<td>6.6 to 7.0</td>
<td>6.1 to 6.5</td>
</tr>
<tr>
<td>Birdfoot trefoil and birdfoot trefoil-grass establishment</td>
<td>6.1 to 6.5</td>
<td>5.6 to 6.0</td>
</tr>
<tr>
<td>Clover and clover-grass establishment</td>
<td>6.1 to 6.5</td>
<td>5.6 to 6.0</td>
</tr>
<tr>
<td>Cool-season grass establishment and produc-tion</td>
<td>5.6 to 6.0</td>
<td>5.6 to 6.0</td>
</tr>
<tr>
<td>Lespedeza and lespedeza-grass establishment</td>
<td>6.1 to 6.5</td>
<td>5.6 to 6.0</td>
</tr>
<tr>
<td>Overseeding legumes</td>
<td>6.1 to 6.5</td>
<td>5.6 to 6.0</td>
</tr>
<tr>
<td>Warm-season grass establishment and produc-tion</td>
<td>5.6 to 6.0</td>
<td>5.6 to 6.0</td>
</tr>
<tr>
<td>Sudan grass and sudan/sorghum crosses</td>
<td>5.6 to 6.0</td>
<td>5.6 to 6.0</td>
</tr>
<tr>
<td>All row crops</td>
<td>6.1 to 6.5</td>
<td>6.1 to 6.5</td>
</tr>
</tbody>
</table>
Financial Resolutions for 2014
By: Janet LaFon

It’s that time of year when people hurry about making their gift returns, shopping at the after holiday sales and welcoming a new year. A traditional part of this season for many people is making New Year’s resolutions. But how many of us consider financial resolutions? Here are a few you might want to consider adding to your list for 2014:

• Set up a home filing system for your financial records. This will make it easier to find this information when needed. If you already have a home filing system, spend some time cleaning out items no longer needed.

• Help children learn the value of money by showing them how to make a spending and saving plan and stick to it.

• Review beneficiaries named in insurance policies, wills, etc. Are those named still the people you want to include?

• If you don’t already have a will or some other form of estate plan, this would be a good time to get one in place. If you do have a will or plan, review it to make sure it still reflects your wishes.

• Start or add to a savings program. Most of us think we’ll save what’s left at the end of the month. For many, there is nothing left! Instead of waiting until the end of the month, begin this year by paying yourself first. It doesn’t have to be large amounts; you’ll be surprised how quickly even small amounts can add up. The key is doing it on a regular basis.

• Did you overload your credit cards during the holidays? If so, develop a plan for getting the bills paid. Be sure to read the fine print on your credit card information to see exactly how much interest you’re being charged. You should pay off those with the highest rates as soon as possible, as these are the ones costing you the most money. As you’re paying off the current bills, think about your use of credit and decide if changes are needed. If your answer is yes, then get started!

• Have you checked your credit record? It’s a good idea to check your report periodically to make sure the information is accurate and that you are not a victim of fraud. You can get a free copy of your report from each of the three credit consumer reporting agencies, Equifax, Experian and TransUnion, once a year by going to www.annualcreditreport.com, calling 1-800-821-7232 or sending a request form to: Annual Credit Report Request Service, P.O. Box 10528, Atlanta, GA 30348-2

Building a Small Corral
From Ag News 2002

For those of you with a very small cow herd that want an inexpensive way to work cattle, here’s a plan in which you might be interested. This is a plan for a wooden head gate, which was probably developed in the very early 1950s. I’ve heard it was a popular unit and there are some still in use. The plan was designed to build the head gate separate then attach it to a post on either side. A wooden or steel hinged panel could be used on both sides behind the head gate and you have a fairly inexpensive working chute. You still need a catch pen, alleyway, and a narrow lead-up alley to get to the working chute. Additionally, you may also want a means to load out into a gooseneck trailer.

Below is a sketch of a small, easily constructed corral that might fit the needs of a small herd. A 20’ x 30’ pen should easily hold 25 head of cows. Alleys 10’ wide would allow some sorting as well as movement to other areas of the system. This system could be constructed with 37 panels or gates (25-10’, 2-5’, 2-7’, 4-8’ 1-30” and 3-2’), 41 posts, and something to make two sides of a solid curved lead-up alley about 15’ long.

KOMA Beef Cattle Conference Joplin Regional Stockyards
January 14, 2014 beginning at 3:00 PM
3:00 p.m. Registration/Visit Industry Booths
3:30 p.m. Beef Cattle Economic Outlook and Discussion of Herd Expansion
4:30 p.m. Discussion Panel Estrus Synchronization and Artificial Insemination
Baleage
Cattle Video Marketing
Process and Procedures of Cattle Comingling Program
5:30 p.m. Alternative Feedstuffs
6:30 p.m. Meal/Visit Industry Booths
7:30 p.m. Discussion Panel Q/A
8:00 p.m. Keynote Presentation
"Animal Welfare, BQA and Beef Production--How It All Fits Together"
Registration Fee
$25.00/PERSON by January 10, 2014
OR $30.00/PERSON at the door
Fee includes the meal Contact Cedar County MU Extension Center for more information at 417-276-3313.