Get the Greatest Value from Your Spring Grass Hay Crop
Mark Jenner, Ag Business Specialist

Missouri cattle prices are at an all-time high. Yet the last few years of high grain prices have put pressure on grain farmers to tear out some fences and cultivate every available acre. Crop acres are up and hay acres are down. High beef prices will put pressure back on land owners to ensure we have enough grass acres to feed an expanding herd.

We can grow grass in Missouri. Missouri grass successfully feeds both a thriving cow-calf industry and the grazing dairy industry. Cool season grasses grow in the cooler spring and early summer, as well as, in the early fall of the year. New spring growth has a high forage quality.

Many grass producers wait until July to cut hay, when the rains have tapered off and work slows down. A single, July cutting will produce the most tonnage, but not the highest quality hay. Cutting hay in May has a higher value in quality than the value of the larger quantity of hay cut later. When it comes to managing your cool season, spring flush, quality has more value than quantity.

Early harvested hay can have a Total Digestible Nutrient content or TDN of over 60% while later hay can easily be below 50% TDN. When this hay is fed to the momma cow next winter that is staying warm and nurturing a calf, small differences in digestibility make a big difference in energy intake. The energy demands of this gestating cow are high and her feed must be as energy-dense as possible, or she will pull extra energy from her own, stored reserves.

As grass ages during the growing season it gets tougher and senesces. This is true whether the grass is harvested as hay or is grazed. In fact, one of the reasons that intensive rotational grazing works so well is that the forages are not allowed to get old and tough. Intensively grazed paddocks keep the forage in a perpetual state of new regrowth. Harvesting and feeding tough, low quality hay can work, but low quality hay must be offset with expensive, high energy feed supplements. The economic trade-off here is one of giving up the convenience of summertime hay-harvesting with a high-cost of winter hay supplementation for more direct management of spring growth with lower winter feed costs.

Some basic examples of the cost of hay supplementation have been developed by David Hoffman, Regional Livestock Specialist in Cass County. Meeting the energy needs of a gestating cow in a Missouri winter that is fed tough, low quality, late summer hay will cost between 50 cents to a $1 per day in corn and soybean meal. Better, average quality hay requires feed supplementation that costs about half that much per day. While the highest quality hay we produce in Missouri can actually meet a gestating cow’s winter nutrient requirements without additional supplementation.

Travis Harper, Regional Agronomy Specialist in Henry County uses five years of local weather data to illustrate just how difficult it can be to cut hay and get it bailed during a Western Missouri spring. It rains often and there are real risks of baling rained-on hay. But he can also show that the lower quality of rained-on spring hay can still be higher than the quality of late summer hay that hasn’t been rained-on.

Some Missouri grass growers have had success grazing their hay fields in May and then haying them later in the summer when it is more convenient. This allows the grazing cattle to benefit from the high quality spring growth and delays the development of tougher, older, low quality hay. When the newer, regrowth hay is cut later in the summer it will also have higher digestibility. By grazing it early and haying later, feed quality will have remained high throughout the season.

The take home message here is that harvesting, higher quality, newer-growth hay is a greater economic investment than cutting lower-quality, summer cut hay.
Sources of Information about Sheep and Goats
By: Jodie Pennington

There are extensive resources about small ruminants from your local extension office and other government offices, magazines, nearby neighbors, industry personnel such as your feed dealer and veterinarian, and the Internet. Some of the Internet sources are for sheep or goat information while other sources pertain to both sheep and goats. Management practices for sheep and goats are similar but not identical. There are more differences in the management of goats across herds than there are differences between the same good management practices of sheep and goats.

It is critical that you visit other farms to see their management if you are considering sheep or goat production as a paying enterprise. Your local extension office can direct you to other producers in your area that can provide information concerning sheep and goat production. Goat Rancher, Sheep, and Dairy Goat Journal are magazines that offer much information to producers. Many other magazines for small ruminants are also available, including breed specific magazines/newsletters that are either in print or available on the internet.

Most information on the Internet is very reliable and available at no cost to you. The information is available through search engines such as https://www.google.com/ and https://www.yahoo.com/. Of course, you will find some recommendations not consistent with most other recommendations. Some of these recommendations might be research-based, because not all research agrees. It is important to critically review information as you surf the Internet as not all information is unbiased. A significant concern arises when Internet sources differ. Be especially careful if information is one person’s opinion; it might not be applicable in many environments but it may work on that person’s farm.

Below are Internet sources that are very reliable. Even in this list, there are some conflicting recommendations, but all seem to be based on science and reason. Many other good sites are on the Internet but are not shown here because of space.

Two of the most popular websites for general information concerning sheep and goats are the eXtension websites (at http://www.extension.org/sheep and http://www.extension.org/goat) and the University of Maryland small ruminant page at http://www.sheepandgoat.com. The National Sustainable Agriculture Information Service (ATTRA web site is https://attra.ncat.org/attra-pub/livestock) has selected publications available in Spanish and Hmong.

For more specific information, check your state university agriculture Extension web site. In Missouri, you can look at Lincoln University (http://www.lincolnu.edu/web/cooperative-extension-publications or http://www.lincolnu.edu/web/programs-and-projects/small-ruminant-program). For the University of Missouri’s information on sheep or goats, go to (http://extension.missouri.edu/main/DisplayCategory.aspx?C=179 and http://extension.missouri.edu/main/DisplayCategory.aspx?C=213). The Langston University website for goats is http://www.luresext.edu/goats/index.htm which has more extensive information about goats than most university sites. Almost all states have Extension or outreach pages for goats, including some listed below.

Search for Missouri Century Farms……..

If your farm has been in your family since Dec. 31, 1914, you can apply to have it recognized as a Missouri Century Farm. To qualify, farms must meet the following guidelines: The same family must have owned the farm for 100 consecutive years. The line of ownership from the original settler or buyer may be through children, grandchildren, siblings, and nephews or nieces, including through marriage or adoption. The farm must be at least 40 acres of the original land acquisition and make a financial contribution to the overall farm income. Call your local Extension office for more details and an application.

Mark Your Calendar for May 13th:

Newton County Cattlemen’s will hold their monthly meeting at Crowder College, Neosho, Mo, on Tuesday, May 13th in the Wright Conference Center at 6:00 pm. The program will be on the Right to Farm Amendment presented by Missouri State Representative Bill Reiboldt and others. Dinner will be sponsored by the Joplin Regional Stockyards at no charge. Please RSVP to Karen Fink at karen-fink@crowder.edu or 417-455-5720 by May 6th as there will be limited seating.
Grasshoppers – Will they be a destructive problem this year?
By: John Hobbs

Last summer, grasshoppers staged a ‘spotty’ invasion in SW Missouri when grasshoppers caused serious damage in some areas and little damage in others. Even though we had a cool and wet 2012 spring, grasshoppers were in abundance in some communities and cause serious crop, pasture and horticultural damage even eating siding on homes.

If we have an abundant hatch you will start noticing grasshopper nymphs in early May to early June (sometimes sooner). What should you be looking for? Young grasshoppers (nymps) will be a miniature of the adult grasshopper. Grasshoppers in the early instars are so small that they are difficult to see and require observing close to the ground. Scouting in waste area pastures is important to determine if you have an overabundant hatch of hoppers. Outbreaks often were correlated with drought, particularly dry periods that persisted for two years or longer, but can occur in cool, moist years.

Whether an area has a serious problem usually depends on three factors: weather, natural enemies and food.

Weather: Consecutive years of hot, dry summers and warm, dry autumns favor grasshopper survival and reproduction. Warm, dry fall weather allows grasshoppers more time to feed and lay eggs. Nymphs must start feeding within one day after egg hatch and usually feed on the same plants as the adult. Because of limited fat reserves, young nymphs are vulnerable to adverse weather just after hatching. **Extended cool temperatures (less than 65°F) and rainy weather during this early hatching period can result in starvation of the young nymphs.** Grasshopper nymphs go through five instars, or stages of development. After each instar, they shed their cuticle (skin) and grow larger. Grasshopper nymphs normally reach the adult stage in five to six weeks. Adult grasshoppers, the only stage to have wings, readily move out of hatching areas and begin egg laying one to two weeks after becoming adults. Adults live two to three months, depending on the weather. All developmental stages are influenced by temperature, and grasshopper growth can be advanced or retarded by favorable or unfavorable temperatures.

Natural Enemies: There are several natural enemies of grasshoppers, and while some of these become more numerous when outbreak populations occur, they are not likely to prevent populations from moving into yard and garden areas. Natural enemies work in concert and their overall effect will significantly impact seasonal populations.

A few of the most common and effective predators of grasshoppers include robber flies, spiders, and blister beetle larvae (on egg pods). Perhaps the most effective and practical natural enemy for use in yards and gardens is poultry, especially guinea hens and turkeys. However, some poultry may cause substantial injury to the garden. Even these predators may be overwhelmed during outbreak years.

A common parasite of grasshoppers and crickets is the horse-hair or gordian worm. These nematodes, up to 4 inches in length, become more numerous in outbreak years, but their life cycle requires water, limiting their effectiveness in dry areas. Another predator is a small red parasitic mite that can lodge itself under the grasshopper wings. These mites may stress the grasshoppers, resulting in fewer eggs or a shorter lifespan, but they are not likely to dramatically affect current populations.

Several diseases can impact grasshopper populations. A fungal disease caused by *Entomophthora grylli* may be the most noticeable. It causes infected, dying grasshoppers to crawl to the tops of grasses where they wrap their legs around the grass stem and die. Impacts from this disease are often not seen until late in the season.

Spores of the protozoan *Nosema locustae* are commercially available as a formulation on bran bait (called Semaspore, Nolo-Bait). The spores must be applied against small grasshoppers (3rd to 4th instar) in and near the hatching areas to be effective. This disease will act slowly and may take an entire season to reduce populations. It will have minimal impact on later instars or adult grasshoppers that move into yards or gardens.

Food: Eliminating weeds will starve young hoppers and later discourage adults from laying eggs in the area. However, destroying weeds infested with large numbers of grasshoppers can force the hungry grasshoppers to move to nearby crops or landscapes. Control the grasshoppers in the weedy area first with insecticides or be ready to protect nearby crops if they become infested. Grasshoppers deposit their eggs in undisturbed soil, as in fallow fields, road banks, and fence rows. Shallow tillage of the soil in late summer may be of some benefit in discouraging egg production.

Chemical control is often the best alternative for eliminating heavy infestations of grasshoppers, so when can I use insecticides? The younger the grasshoppers are; the easier they are to control. Grasshoppers are susceptible to many insecticides. However, insecticides typically do not persist more than a few days and grasshoppers may soon re-invade the treated area. The length of control will depend on the use rate and residual activity of the insecticides and the frequency of retreatment. Controlling grasshoppers over a large area will reduce the numbers present which can re-infest a treated area.

I have listed some insecticides for controlling grasshoppers in the home landscape and/or gardens. (Refer to the label for where product can be used (landscape, vegetables, fruit trees, pastures, etc.). Cyfluthrin, bifenthrin, permethrin, cyhalothrin and carbaryl are some of the active ingredients that control grasshoppers and that are formulated and packaged for homeowner use. Look for one of these insecticides listed in the active ingredients on the product label. Read the label carefully to determine if the site you wish to treat (vegetable garden, fruit trees, etc.) is listed on the label as an approved site.

See page 4 for Chemicals that can be used to eliminate grasshoppers from your crops and/or pastures.
SITE: Row Crops or Grass Pastures - GRASSHOPPERS

Comments: Control grasshoppers when they are small by applying spot treatments to hatching sites or in grass pastures. Treatment in these areas is justified when grasshopper numbers reach or exceed 7 grasshoppers per square yard.

<table>
<thead>
<tr>
<th>Common name</th>
<th>Trade name</th>
<th>Rate of Formulated Material/Acre</th>
<th>Placement</th>
<th>Pre-Harvest Interval Days</th>
</tr>
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<tbody>
<tr>
<td>zeta-cypermethrin</td>
<td>*Mustang Max</td>
<td>3.2 to 4.0 fl oz</td>
<td>Broadcast</td>
<td>0(forage, hay), 17 (straw)</td>
</tr>
<tr>
<td>carbaryl</td>
<td>Sevin XLR Plus</td>
<td>1 to 4 pt</td>
<td>Broadcast</td>
<td>14(harvest or grazing)</td>
</tr>
<tr>
<td>lambda-cyhalothrin + chlorantraniliprole</td>
<td>*Voliam xpress</td>
<td>6.0 to 9.0 fl oz</td>
<td>Broadcast</td>
<td>0(harvest or graze)</td>
</tr>
<tr>
<td>lambda-cyhalothrin</td>
<td>*Warrior II</td>
<td>1.28 to 1.92 fl oz</td>
<td>Broadcast</td>
<td>0(grazing or forage) 7(hay)</td>
</tr>
</tbody>
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*Designates a restricted-use pesticide. Use is restricted to certified applicators only. Regardless of the formulation selected, read the label to determine appropriated insecticide rates, directions, precautions, and restrictions.

Cattlemen invest in the future of Ag……

The gavel dropped for the 37th time on the same calf at the Joplin Regional Stockyards, Wednesday, April 2, 2014. No, auctioneer Bailey Moore wasn’t making a mistake, in fact, he and others were instigators in this fundraising event for the Crowder College Aggies. The Newton County Cattlemen’s Association generously donated the 620 pound calf that was bought and donated back multiple times until the 37th buyer finally bought the steer outright. Bids ranging in amounts from $25.00 to $400.00. Along with buyers present, community supporters called in bids. The final bid on the steer calf was for the purchase price of $2.02/cwt.

New Mac Electric, Neosho, Missouri also kindly donated a BBQ grill and Renter Spray Service donated a spray application to be sold to the highest bidder. Additional support was given by the following corporate sponsors:

- Joplin Regional Stockyards
- Corner Stone Bank
- Cass Steel
- Community Bank & Trust
- Animal Clinic of Diamond
- Southwest Missouri Bank
- State Farm Agent Fred Harris
- Newton County Cattlemen’s Assoc

Over $7,700 was raised through the entire event and the check was presented to Jay Wilkins, sponsor and advisor for the Crowder Aggies. The funds will be utilized to support students as they attend ag travel seminars to learn about agriculture across the country, along with assisting their travel expenses to compete at local, state, and national contests, and to host events such as Aggie Days for area high school students. Arrangements are being made with Joplin Regional Stockyards to make the benefit auction an annual event. “I was moved by the generosity of the Newton County Cattlemen’s Association and the “buyers” who were so supportive of the future of agriculture in our community,” emphasized sophomore Crowder Ag student, Jessica Schad from Monett, Missouri.

The Crowder College Aggies wish to thank all of the supporters who worked hard to make this fund raising event a huge success.
TIPS to Keeping our Energy Levels High
By: Lydia Kaume

We all often feel fatigued early in the day and lacking in energy to accomplish our daily tasks. Here are some proven tips to boosting that energy. These tips considered as a whole and practiced in combinations have the potential to reduce stress and increase energy in most individuals.

Eating according to the recommended eating plan. Our bodies need adequate nutrients for optimal performance.

- A large meal or foods high in fat may make you feel drowsy or groggy
- Eating some protein at each meal or snack will give you longer lasting energy vs just eating a high carbohydrate meal such as pasta, bread or sweets.
- Include fresh fruits and veggies and whole grains in meals

Get plenty of sleep. When our body gets the rest it needs, we’re less likely to feel drowsy during the day. While individual needs vary, most adults need seven to eight hours of sleep each night. You will feel more alert and concentrate better with adequate sleep.

Drink water to stay hydrated. Dehydration will make you feel tired and it is dangerous for your health. Aim at drinking 8 or more glasses of water daily.

Move it. If we feel tired while studying or working, take a quick 10-minute walk or do some exercises to make you more alert by increasing blood flow to all parts of your body. Regular physical activity will also improve your energy level. Children need 60 minutes of physical activity each day and adults need at least 30 minutes.

Drink coffee and/or tea in moderation. Coffee and tea both contain caffeine. Try having just one 8-ounce cup and see if your body really needs more caffeine.

Cutting back on caffeine slowly. If we find ourselves dependent on highly caffeinated drinks, reducing consumption slowly may be helpful to improving overall rest and relaxation. Taking caffeine completely out of your routine can result in withdrawal symptoms that include headaches, body aches, and depressive symptoms.

Avoiding energy drinks. Beverages marketed as energy drinks intended to boost physical energy or mental alertness are a source of caffeine and contain the caffeine equivalent of 1–3 cups of coffee or cans of soda.

- People with high blood pressure or heart disease should avoid energy drinks because they could affect their blood pressure and, may even alter the effectiveness of their medications.
- These drinks may also contain other ingredients such as herbal substances, amino acids, sugars, and sugar derivatives; however, caffeine is the main active ingredient.
- If taking energy drinks, be aware that they may contain herbal ingredients such as ginseng and ginkgo biloba which are known to interfere with proper drug action of certain medications such as insulin, oral hypoglycemic agents, blood thinners, and diuretics. Such interactions can cause severe health problems.

References

What’s a Credit Score?
By: Janet LaFon

Last month, I shared information on how to get a free copy of your credit report. Creditors use this information to help them to figure out if you are a good or poor risk for paying money back and whether or not your payments will be on time. Another piece of information that is often used by creditors to decide if they will loan you money and how much interest to charge is a credit score.

Your credit score is found with your credit report. Unfortunately, the free annual credit reports mentioned last month do not include the credit score unless you pay a fee for the score. Your credit score is viewed as a summary of the credit information found in your file. Information is weighted differently based on how important it is in predicting whether you will be a good credit risk.

One of the most common credit scores used is one generated by a software program developed by the Fair Isaac Corporation called your FICO® score. FICO® scores range from 300 to 850, with the higher number being the more desirable. Over one third of your score comes from how you have paid your bills in the past — on time, late or not at all.

There is no single “cutoff score” used by all, or even most, creditors. As mentioned earlier, your credit score is often used to determine your interest rate, and also what you will pay for insurance. Typically, higher credit scores mean lower annual percentage rates (APRs) and lower insurance premiums. If your score is not as high as you would like, here are some ways to bring up your credit score.

- Pay your bills on time. Late payments, delinquent payments and bills that have been sent to collections will pull your score down.
- Bring credit balances down. Having a high amount of debt pulls your score down. This is especially true of debt on credit cards and other types of revolving credit.
- Be cautious when closing old accounts or unused accounts. Closing an old account in good standing may actually hurt your score. When you decrease your average account age by closing old accounts, you may actually lower your score.
- Requesting your own credit report will not have a negative effect on your score. Do not hesitate to order your own credit report thinking that this can lower your credit score.
- Request any good credit history be added to your credit report. Sometimes student loans and other debt are not reported to all three national credit consumer reporting agencies. You can ask the creditor to report the information or you can write credit consumer reporting agencies directly and give them the information about the account and ask them to add this information to your credit file.

It’s important to remember that your credit score is not the only information a creditor will use to decide whether to give you credit. The creditor makes a judgment based on your credit score, but may also use his or her institution’s internal scoring system to evaluate other factors found on your credit application and in your credit report.