

Over-mature hay drops in quality; testing helps develop balanced ration for winter feeding

Rain-delayed haymaking leads to poor-quality feed for livestock next winter. Supplemental feed will be needed to make balanced rations. A hay test makes the first step in learning how much supplement will be needed.

For best quality, hay should be harvested in May before plants set seed. When seed heads fill, sugars and proteins move from leaves into the seeds. High fiber remains instead of nutrients needed for high-quality hay. However, this May did not give farmers many rain-free days to cut, cure and bale hay. Rainfall extended into June, further lowering odds for making good hay.



More hay than usual was cut in July. Not a good sign. However, the regrowth has a chance to make higher-quality feed. Unfortunately, cool-season grasses go into summer slump, growing little in July and August. Regrowth may not come until fall rains return. Applying nitrogen fertilizer in mid- to late August can boost yield and quality of fall growth.

Rather than making fall hay, University of Missouri Extension forage specialist Rob Kallenbach recommends stockpiling fall grass growth for strip grazing. Stockpiled pastures can be grazed well into winter.

One extension specialist reported that producers who didn't cut hay in the spring want to delay cutting hay until fall. They believe the forage will gain nutrients from regrowth. Don't do that. Over time, mature standing grass leaves rot and dry rather than gain quality.

There's an extra hazard in that over-mature hay. Ergot alkaloids may be contained in the seed heads. That further lowers quality. Start with a clean field to allow better-quality forage to grow.

Last year's drought allowed making higher-quality hay than this year. The spring of 2012 was wet enough to grow hay. Then it was dry enough that hay could be harvested without rain damage.

Testing hay now will aid in making balanced rations for winter feeding.

Details on taking hay samples and on testing labs can be obtained from local MU Extension office.

Source: Robert Kallenbach, State Forage Specialist

Twelve Things to Know About Forage Drought Insurance

- The government label for this coverage is PRF which stands for pasture, rangeland, and forage.
- PRF was first offered for Missouri in 2009.
- In aggregate for our state, indemnities have exceeded the farmer share of premiums in each of the last four years. For the drought year of 2012, policies paid \$3.81 for each \$1.00 premiums.



- Like other crop insurance programs, the total cost is government subsidized. Subsidies range from 51 to 59 percent, depending on coverage level.

- PRF insures against one peril: below normal

precipitation. It does not cover other potential causes of loss, such as fire, hail, or insects.

- PRF is for perennial forage crops only. It does not work for annuals of any kind. Crops planted after July 1, 2013 will not be eligible for PRF coverage in 2014.
- A single policy covers either pasture or hay ground, but a farm may purchase several policies. Premiums and potential payments are much less for grazing than for haying.
- Indemnity payments are not triggered by actual yield loss. Instead, payments are made when rainfall within a specific geographic area (about 17 by 13 miles) is less than the long-term average precipitation. Thus, there is a remote possibility that a policy holder could receive a payment without actually suffering a yield loss. The opposite is also true. An actual loss might occur without triggering a payment.
- Producers can (and must) select time intervals of protection by pairs of months. The idea is to select months when a rainfall deficit would do the most damage. For example, a producer might choose the months of April-May and August-September for a pasture policy.
- The level of financial protection available varies slightly by county. However, producers may select within a wide range of choices. For example, a hay field in Pettis County can be insured at levels ranging from \$60 to \$192 per acre. Premiums would range from \$4 to \$16 per acre, respectively. The

best coverage for pasture would be \$56 with a premium of \$4 per acre.

- The deadline to purchase a policy for 2014 will likely be mid-November. Your crop insurance agent can provide more details.
- No surprise, the number of acres currently covered in Missouri doubled from 2012 to about 119,000. That's about one percent of the eligible pasture and hay acreage.
- A new MU Extension publication explains the mechanics (i.e. rainfall index) of the program. It is available here <http://extension.missouri.edu/p/G457>
- USDA has provided a really nice calculator to estimate premiums and test different scenarios here <http://agforceusa.com/rma/ri/prf/dst>

Source: Brent Carpenter, *Ag Business Specialist*

Fall Forage Management Critical Concepts

Forage management strategies are as varied as the people that grow the forages. Most farmers in Missouri have been producing forages for a number of years and have a pretty good idea of what they want to do and when they want to do it. These ideas may be completely different from the ideas of a farmer that lives just down the road. Despite these different management strategies, there are a few key concepts to remember as fall approaches:

- **Tall fescue is great for stockpiling** - Fescue is more resistant to low temperatures than orchardgrass, brome, or timothy. This makes fescue an ideal candidate for deferred grazing, or stockpiling. Grazing stockpiled fescue in the winter is always cheaper than feeding hay. Cattle should be removed or hay should be cut from selected fields in August. Tall fescue is highly responsive to nitrogen and applying 40-80 pounds per acre will maximize production for fall and winter grazing. Strip-grazing results in the greatest utilization of this stockpiled forage.
- **Legumes need rest** - With the rising costs of nitrogen fertilizer, many forage producers have turned to legumes as a source of nitrogen for their pastures. In addition to the nitrogen they add to the soil, legumes also improve overall forage quality and can increase total forage yield. To ensure that legumes persist in a



pasture, cattle should be removed by September 1st. This gives legumes the opportunity to rest and build up root reserves going into winter, resulting in a higher quality stand the following spring. Many legumes, such as annual lespedeza, must be allowed to rest and produce seed if they are going to persist beyond the first year.

- **Forages need fertilizer** - Adequate soil fertility is essential to the quality and persistence of forages. Fall is a great time to collect soil samples and apply recommended rates of lime, phosphorus, and potassium.
- **Thistles need to be controlled** - Many producers who are trying to deal with thistle problems will mow their pastures throughout the summer in an attempt to prevent seedheads from forming. Even if pastures are mowed every week, some thistles will still bloom and seeds will be scattered throughout the pasture. Farmers return to problem fields in September or October and spray thistle rosettes with a labeled herbicide.

Even the best-managed forage fields will decline over time. Once the desired forage makes up less than 50 percent of a field, it is time to consider a complete pasture renovation. The University of Missouri recommends the “spray-smother-spray” method, especially when trying to eliminate KY31 endophyte-infected tall fescue. Spray-smother-spray consists of spraying the entire pasture with glyphosate, planting a winter annual grain crop such as wheat, and then spraying the cover crop with glyphosate and seeding a new forage in the spring. Some novel-endophyte, non-toxic tall fescue varieties to consider Jesup MaxQ®, ArkShield, Texoma MaxQII, DuraMax Armor, and Bar Optmia Plus E34. Converting as few as 25 percent of pasture acres to novel endophyte tall fescue and grazing those renovated acres during the breeding season improved conception rates of spring calving cows in a University of Arkansas study.



Following the above concepts will delay the need for pasture renovation and will result in the greatest utilization of forages.

Source: Travis Harper, Agronomy Specialist

Late Season Approaches to Thistle Control

After the last drought, thistles have taken advantage of weakened grass stands and rosettes to full-bloomed plants are visible in many fields through the area.

There are several species of thistle that can invade a field. Three of these species are on the Missouri noxious weeds list - Canadian, musk and scotch thistle. If a plant is listed as a noxious weed, control measures are required by law.

Most thistles, including musk and scotch, are biennials which mean they have a two year lifecycle and seeds, which may have survived in the soil many years, have the opportunity to germinate when forage stands thin due to overgrazing or drought damage.

Unlike musk or scotch thistle, the Canadian thistle is a perennial plant with a rhizomatous root system allowing it to spread by either seed or by multiplication of the roots.



Thistle seeds usually germinate and form rosettes in the spring or fall, but can also germinate during the summer months when ample moisture is present.

Spraying an herbicide to control thistles is most effective when applied during the rosette (vegetative) stage of growth.

Thistle rosettes can be easily overlooked by busy producers during the late fall and spring. Sometimes you don't realize you have a problem until you see the thistles bolting and beginning to flower during the summer month.

Once the thistles have bolted and flowering begins, chemical control methods become less effective and a higher rate of herbicide is needed. Applications of GrazonNext, Remedy/Martin's Clear Pasture (triclopyr), Grazon P+D/Gunslinger/Trooper P+D, or premixes of products containing triclopyr or dicamba and mixed with 2,4-D can give producers up to 70% control during flowering.

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Brush hogging musk thistles within two days after the terminal flower head has bloomed can be an effective control method and prevent rebolting for this species. Other species of thistle may rebolt after initial cutting and to significantly increase control, brush hogging should be repeated about three weeks later. Controlling Canadian thistle using only a brush hog will require repeated cuttings per season for several years.



In order to reduce seed production, producers should brush hog when the flower buds begin to turn pink or purple. Approximately seven days after buds begin to turn pink or purple, blooms will develop viable seeds. Brush hogging after the seven-day window may actually spread live seed.

There are insects that feed on thistle rosettes and the buds. Prior to brush hogging or spraying, look for feeding damage on the rosettes or cut flowers open to scout for weevil that may be actively feeding on the seeds. For most successful control, six to eight head weevils are needed per flower.

Whether mature thistle are sprayed, brush hogged or if weevils are allowed to take charge on controlling thistle populations, scouting later this summer and into the fall will give producers a head start on controlling next year's crop of thistles with fall or spring herbicide applications if they find more rosettes.

For more information regarding thistle control or for help identifying the species of thistle, please contact your local MU Extension agronomist.

Source: *Brie Menjoulet, Agronomy Specialist*

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