From the County Agent’s Desk...

An unusually wet, fairly mild summer kept things growing and going throughout the summer. For the most part, droughty conditions weren’t really much of a problem June – August, but September has proved to be a dry one. With many parts of the county not receiving much rain the last 3-4 weeks, fall cool season pastures are feeling the effects.

Undoubtedly, if fall pastures don’t produce, many folks will start feeding hay much sooner than planned. And, with a recent dip in cattle prices, selling off very many cattle to get by on less pasture isn’t very appealing. But then again, if prices continue a downward trend, then now might be the time to cut back on stocking rates, lessening the winter maintenance costs and hay feeding. You make that call. The forecast isn’t very promising either. At last check, there’s not much of a chance of rain until nearly 10/7 – 10/8. We’ll see if that holds up. If it does, and pastures are thin, winter annuals such as ryegrass or wheat might be a good option to extend the grazing season a little longer.

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HAY PROJECT RESULTS AND MAINTAINING COWS THROUGH WINTER

We’ve recently wrapped up the first part of the 2015-2016 Hay Project, and we wanted to share the results with all of our newsletter readers. In the past few weeks, myself and a few of our forage and beef specialists have worked with producers on sampling hay and then interpreting those results and what they mean for a cow herd going into winter. The following charts show a scatter plot of each of the 21 samples that were analyzed. The thicker, horizontal lines represent the beef cow maintenance requirement for a given stage of production.

![Chart 1. Crude protein analysis and production stage requirements](image1)

![Chart 2. TDN analysis and production stage requirements](image2)
As most know, we had very wet spring, and a lot of hay was cut late simply because farmers couldn’t get in the field any earlier. As such, forages got stemmy and quality went down. A lot of hay was cut in those first 2 cuttings, but in many cases the hay quality is not what it would have been in a more typical year (whatever that is). However, based on these 21 samples, the quality is far from poor. The average crude protein and TDN were 9.15% and 54.88%, respectively. That absolutely meets the maintenance requirements of a dry cow with no need for additional supplementation. In fact, 62% (13/21) of the samples meet both the C.P. and TDN requirements for a dry cow, and no additional supplementation is needed.

Another thing to take away from this information is this. Only 14% of the samples were crude protein deficient for dry cows. Roughly 40% of those same samples are TDN deficient for dry cows. This reflects Arkansas hay as a whole over many years of data too. By and large, our hay is not protein deficient. It’s energy deficient. Yet, many producers pay much more attention to the protein content on a feed bag, lick, or tub when it comes time to supplement cattle. Perhaps it is because of a “some is good, so more is better” mentality. And, that is true, but not if the goal is to maintain body condition economically. Why give them the extra protein if they don’t need it? It’s wasted input cost that could be spent elsewhere (i.e. fertilizer or weed control to further improve hay quality).

But, if your cattle are a little thin (think, body condition score 4 or less), and fleshing them up a little prior to bull exposure is needed, then it wouldn’t suffice. Or, for fall calving cows that will be in early-mid lactation through winter, then she’ll need a little supplement. How much and what depends on the hay and some of her characteristics. Also, if you’ve got some spring calves that are about to be weaned and you plan to put some additional gain on them, their needs are much higher, depending on the desired rate of gain. Some examples of body condition scores (BCS) are included on the next page, along with a brief description.

If you want to improve hay quality, there are two big factors: growth stage and level of fertilization. Fertilization affects C.P. more so because crude protein is essentially a “crude” measure of protein whereby a lab analyzes the level of nitrogen in the sample. Proteins are approximately 16% nitrogen. Therefore, increased levels of nitrogen fertilization increase nitrogen in the plant and ultimately the nutritional protein value. So, one may think, “C.P. levels are fine. There’s no need to fertilize with nitrogen.” That would be a little misleading. The nitrogen still serves the purpose of increased yields. Protein is also impacted by growth stage at harvest.

TDN is much more impacted by the growth stage of the hay when it is harvested. The TDN% of bermudagrass cut at 4 weeks vs. 6 weeks can fall from 60-62% to 48-50% or below in just 2 weeks’ time. That takes it from sufficient dry cow hay to hay that requires supplementation. Fescue cut in the late boot stage, just before a seed head starts to emerge from the top of the plant can see numbers as high as 15% CP and 69% TDN. Wait until the seed head is fully emerged and seeds are starting to get doughy, and those numbers will fall possibly as far low as 6-7% CP and 48-49% TDN.

If you need recommendations on fertilizing or analyzing your hay, give me a call anytime at 895-3301 or come by.
Thin – Beginning of fat cover over the loin, back and foreribs. Backbone still highly visible. Processes of the spine can be identified individually by touch and may still be visible. Spaces between the processes are less pronounced.

Borderline – Foreribs not noticeable; 12th and 13th ribs still noticeable to the eye, particularly in cattle with a big spring of rib and ribs wide apart. Full, but straightness of muscling in the hindquarters. The transverse spinous processes can be identified only by palpation (with slight pressure) to feel rounded rather than sharp.

Moderate – 12th and 13th ribs not visible to the eye unless animal has been shrunk. Areas on each side of the tail head are fairly well filled but not mounded. The transverse spinous processes can only be felt with firm pressure to feel rounded – not noticeable to the eye. Spaces between processes not visible and only distinguishable with firm pressure.

Good – Ribs fully covered, not noticeable to the eye. Hindquarters plump and full. Noticeable sponginess to covering of foreribs and on each side of the tail head. Firm pressure now required to feel transverse process.
Private Applicator Training (PAT) for Restricted Use Pesticides

Local farmers, ranchers, and other agricultural producers who wish to renew an expiring pesticide license or receive a first time private pesticide applicator license will have the opportunity to receive the required training. Some of the folks that are up for recertification will have gotten a letter from the State Plant Board notifying them that their certification is up. If you are receiving this letter, then according to our records and the Arkansas State Plant Board, your license is about to expire.

The training will be held in Salem on Tuesday, November 3rd, 2015 at 6:00 p.m. at the Fulton County Fairgrounds in the Hickinbotham-Miller building. This training is NOT for certification of commercial (for-hire) pesticide applicators!

There is a $10 per person fee which must be paid at the door at the time of training. This fee is not related to the licensing fees charged by the State Plant Board. It is only for the training. The fee for the license is $10 for one (1) year or $45 for five (5) years. That amount you will pay in later to the State Plant Board, not the Fulton Co. Extension Office. Checks or exact cash preferred.

Fall Brucellosis (Bangs) Vaccinations

The fall brucellosis vaccinations are coming up soon. Livestock and Poultry technician, Franky Sharp, and I will tentatively be out on Monday, November 9th. If you have heifers to be vaccinated, please let us know by Wednesday, October 28th. Return the enclosed cut-out card to our office at P.O. Box 308, Salem, AR 72576 or call us at 870-895-3301. Include detailed directions to where the heifers will be. Please don’t assume that Franky and I necessarily know where you’ll be. We both visit lots of farms throughout the year, and the names and locations start to run together sometimes!

Vaccinations are free of charge. Heifers must be at least 4 months old but not older than 12 months old to be eligible for vaccination. We will use the same procedure as in the past and notify you by letter before you are scheduled for
vaccinations. You will need handling facilities to confine and work the calves. Also, you or a representative for you must be present at the time of vaccination or the technician will not vaccinate the heifers. If no one is there, we'll have to move along to the next stop. Remember, the time that we schedule for your stop could be give or take an hour or so. It depends on how fast or held up we are at prior stops.

**2015 Arkansas Hay Test Trends for May through July**

The 2015 hay crop in Arkansas has been challenged with an abundance of cool days and rain during late spring and early summer. Even after rain ceased, harvest was delayed while hay and livestock producers waited for waterlogged soils to dry out. Warmer and dryer days gave way to good forage growth during the wait.

Livestock producers and county agents have reported first-cutting being delayed, even into late-July. For the 3-month period of May, June, and July the total number of hay samples submitted to the University of Arkansas diagnostics lab was 216, slightly below the 5-year (2010-2014) average of 227 samples. Sample median protein level was 10.6%, which is 4% lower than samples submitted during this period last year and 7% lower than the previous 5-year average. Fiber analysis (acid detergent and neutral detergent fiber) during the 3-month period was similar to the 5-year average, and the median total digestible nutrients estimate for submitted samples was 56%.

The fiber content (greatly affected by plant maturity at harvest) of samples submitted to the lab thus far aren’t in line with expectations attributed to this summer’s field conditions. Keep in mind, 216 samples is an extremely small sample of the total hay harvest.

One consistent trend observed in hay samples over the past 10 years in Arkansas has been lower protein content of hay.

A key lesson to the 2015 hay sample summary thus far is any given farm should not base winter supplementation decisions on lab test averages (a.k.a. “my hay is average quality”). Within the 216 samples summarized here, the distribution of protein concentration among samples started at a low of 4% and went as high as 22%.

Climatologists are predicting a strong El Nino to develop which means a warmer and wetter winter. While warmer sounds favorable toward easier cow maintenance, a wet hair coat will drastically reduce the lower critical temperature for cattle, creating a greater demand for energy in the diet.

As hay harvest is wrapped up, no pun intended, follow up with your county Extension agent to have hay lots analyzed for nutrient content and plan a winter feeding program that won’t compromise cow reproduction or the pocket book.
All of the meetings and activities listed in the newsletter are open to all interested individuals.

The Arkansas Cooperative Extension Service is an equal opportunity/equal access/affirmative action institution. If you require a reasonable accommodation to participate or need materials in another format, please contact your County Extension office as soon as possible. Dial 711 for Arkansas Relay.

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