Sunflower Supreme Gazette

Volume 1, Issue 4 August 2014

Special points of interest:

- Pregnancy diagnosis in-depth
- Update for Sunflower Supreme members
- Hay testing importance
- Fall-calving versus Spring -calving on endophyte fescue

Inside this issue:

Methods of Pregnancy Diagnosis

Dr. David Grieger, Associate Professor, Dept. Animal Sciences, Kansas State University

Knowing the reproductive status of your cows and heifers will provide you with information to make better economic decisions. Reproductive status can include cyclicity, which is important pre-breeding, but obviously post-breeding status is critical. Cows or heifers that are open after the breeding season will not provide any return on your cost of labor and feed to maintain them until calving. Calving is not the ideal time to find out which females have been freeloading for 9 months on your tab. *(If you KNOW the girl is going to dump you in the spring, would you keep buying her dinner all winter? If you answered 'yes' to that question, you may have some issues that are beyond the scope of this newsletter).*

Selling open cows in the fall is usually the best economic decision, although feed costs and cull cow market could affect your decision some years. You should also take into consideration the seasonal fluctuation of cull cow prices, which rise and fall with supply and demand. On average, the highest price for cull cows is May-August when supply is lowest; the lowest price is during the months of November and December when most ranches conduct their preg-checks and ship opens to market. Therefore, the TIMING of when you conduct your preg-check can be significant: by getting an accurate and safe pregnancy diagnosis in September or October, you'll get a better price than for your culls than waiting until November and December. In addition, the earlier you sell open cows, the better for your feed and labor cost.

That brings us to the question of how early

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Update for Spring Calving Sunflower Supreme Members

The end of the breeding season is fast approaching so most of you are getting ready to pregnancy diagnosis. Here is a list of the things to be thinking about as you are getting ready for your first pregnancy check.

- Record estimated calving date
- Record method of detection
- Completed by a certified veterinarian
- If using the blood pregnancy test in your operation, make sure you have worked out procedure and have it on record with Jaymelynn
- Fill out Breeding and Preg Check Sheet #4.

If you are planning on marketing your heifers outside of the special sale please contact Jaymelynn or your local extension agent and we can complete the final stages of the certification process (including the final Lepto vaccination) so you can market your BRANDED Sunflower Supreme product as evidenced by the official Sunflower Supreme eartag.

The OFFICIAL SALE date and location have been announced. The sale date will be Friday November 14 at the Parsons Livestock Auction in Parsons, KS beginning at 6 pm. Heifers can be delivered to the salebarn the night before and all heifers MUST be at the salebarn and checked in prior to noon on the 14th. All heifers will have access to feed and water until immediately prior to the start time.

Planning for the next stages:

The next couple of steps for the program include the certification process (2nd pregnancy diagnosis)

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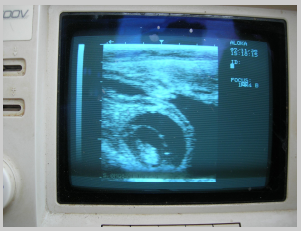

43 d pregnancy image on ultrasound

PREG

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can cows be "accurately and safely" preg-checked? I would define the acceptable level of accuracy for any method of pregnancy diagnosis in cattle to be 90% or greater. All the methods discussed below have some inaccuracy for various reasons. *(If 90% seems too low for your standards, let me quote the words of a large animal practioner who has preg-checked thousands of cows over many years and is excellent at his trade: "If you haven't missed one, you haven't done enough.").* A safe method of diagnosis should have a standard of never compromising the pregnancy as a direct result of the procedure itself.

RECTAL PALPATION is still the most common form of pregnancy diagnosis for cattle. It requires a person with expertise and experience, and one who is not adverse to sleeves and lube. The fetus, placenta and uterine fluid can be palpated through the rectum, which, fortuitously, lies just above the reproductive tract.

For experienced palpators, this method is accurate between 40 days of pregnancy to term. *(At that point, when you see the calf's hooves, go ahead and call her pregnant with confidence).* Many research studies over the last 30 years involving thousands of cows have demonstrated rectal palpation to be a reliable technique that does not have any adverse effects on the pregnancy. A few studies have indicated a slightly greater risk of the pregnancy to palpation when conducted before 40 days of gestation. It should be noted that all these research studies all used an experienced palpator, and it is more difficult for inexperienced palpators to detect early pregnancies of less than 60 days. *Historical note:* Although it is not known when rectal palpation was first attempted by man to preg-check large ruminants, it's possible that event involved a guy with a low IQ and a female mammoth. That probably didn't work out very well, mostly for the human.

ULTRASONOGRAPHY uses a rectal transducer (probe) in conjunction with rectal palpation. The probe is moved over the uterus, which projects a distinct image of uterine fluid and the embryo in pregnant animals. Ultrasonography provides an accurate diagnosis as early as 28 days of gestation, which is a month earlier than palpation alone. Another advantage of ultrasound is the viability of the embryo can be confirmed even at 28 days. Research studies have demonstrated no detrimental effects of ultrasonography on pregnancy.

There is also a **BLOOD-TEST** for pregnancy available for cattle called bioPRYN® (http://www.biotracking.com). This test requires 2 cc of blood per animal and is $2.50/sample plus shipping costs. The test is accurate from 28 days post-breeding to term and a lactating cow needs to be at least 73 days post-calving to avoid a false-positive test from her previous pregnancy. Blood samples are shipped to a lab and the results are received within 1-2 days. It is accurate and convenient, but obviously does not allow for sorting of opens at the time the cattle are worked. *(In case you ever get on Jeopardy, PRYN stands for Pregnant-Ruminant-Yes-No. "I'll take Pregnant Bovines for $100, Alec").*

—Producers should be aware that for all herds there is a 5% loss of pregnancy between 30 and 60 days of gestation. Research has demonstrated this loss occurs independent of palpation and/or ultrasonography of females early in gestation. This means about 5% of your cows confirmed pregnant at 30-40 days will be open at 60 days. A follow-up preg check after 60 days is necessary to pick up these females that lost their pregnancy in the first two months. Regardless of the method used, pregnancy diagnosis is an important part of running an efficient cow/calf operation.

NOTE: fetal aging can only be done via rectal palpation and ultrasound, not with the use of the blood test.

Remember to turn in your paperwork...

Testing hay can save supplement costs

Keith Martin, Wildcat District Livestock Specialist, Labette County Office

Forage analysis can be a useful tool to determine to the nutrient value of hay fed to animals this winter. Knowing the protein and energy content of harvested forages enables cattlemen to better match their purchased supplements with what is needed to meet the nutritional needs of the animals fed.

Forages that are higher in quality as measured by crude protein also have higher energy levels. Just as important higher quality forages are more rapidly digested in the rumen and as a result intake is greater when forage quality increases. For example expected consumption by a beef cow of low quality forages (below about 6% crude protein) will be about 1.5% of body weight (on a dry matter basis) per day. Medium quality grass hays (above 8% crude protein) may be consumed at about 2.0% of body weight. Excellent forages, such as good alfalfa, silages, or green pasture may be consumed at the rate of 2.5% of body weight per day. The combination of increased nutrient content AND increased forage intake makes high quality forage very valuable to the animal and the producer.

The value of forage testing can best be illustrated by comparing the supplement needed to meet the nutrient needs of cows in the winter. A 1,200 pound spring-calving cow in late gestation needs 1.9 pounds of crude protein in her diet each day to meet her needs and that of the growing fetus. If only offered hay that is 5% crude protein on a dry matter basis, her expected intake would be 1.5% of body weight or 18 pounds of dry matter, resulting in a crude protein intake of .9 pounds per day leaving the cow deficient one pound of crude protein daily. In the same situation if the cow was offered 10% crude protein hay her expected intake would increase to 2% of body weight or 24 pounds, resulting in daily crude protein intake of 2.4 pounds which meets her protein requirement. A protein supplement would be needed for the cow on 5% protein forage, while no supplement is needed on the cow receiving 10% protein forage.

The only way to accurately determine the protein and energy content of harvested forages is through forage sampling. For forage sample results be useful a representative sample of the forage lot must be submitted. As a rule of thumb collect core samples from 20% of the bales in a lot.

"Knowing the protein and energy content of harvested forages enables cattlemen to better match their purchased supplements with what is needed..."

Should I Fall-calve or Spring-calve with endophyte fescue???

Jaymelynn Farney, Southeast Area Beef Systems Specialist

Matching your calving season to your environment is possibly the best management practice one can employ within their operation; however, when is the best time to calve for producers on endophyte fescue? That becomes a rather complicated answer and your decisions can be based on results illustrated in a study from Tennessee.

The Tennessee study evaluated data from 19 years of beef cow herd records in regards to reproduction, calf performance, and correlation with the yearly fluctuations in calf price.

To summarize the results from the study:

- Heifers in the spring-calving herd were ~27 days older at calving than fall-calving heifers
- Spring-calving herd had a shorter calving interval than fall-calving herd
- Spring-calving herd produced fewer calves than fall-calving herd
- Spring-calving herd had a higher replacement rate than fall-calving
- Birth weight was similar between both herds
- Calves born in the spring had higher average daily gain and adjusted 205-day weaning weight than fall-calving herds
- Traditionally,

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Fescue

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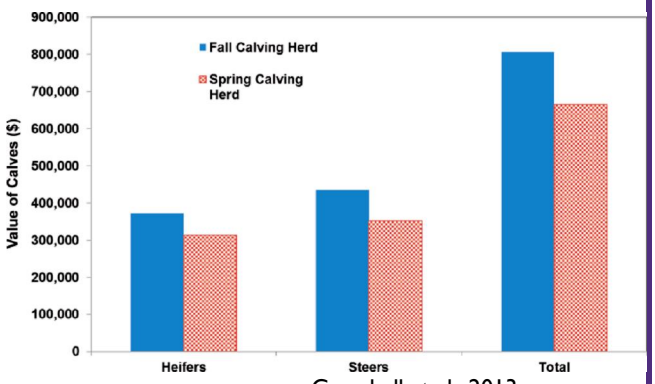
fall-calving weaned calves capture a higher price at the livestock market.

Even though spring-calving herds had higher gains and more pounds of calf to sell at weaning, when incorporating the reduction in calf crop from the spring-calving herd, OVERALL, the fall-calving herd increased the income from the farm.

This summary is rather short, and if you are interested in reading the entire study the citation is: "A comparison of spring– and fall-calving beef herds grazing tall fescue. B.T. Campbell. 2013. The Professional Animal Scientist. 26:172-178.



Campbell et al., 2013

Update

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and the sale. Certification and 2nd pregnancy exams need to occur 30-45 days before sale date (**OCTOBER 1–15).** Contact your extension agent and veterinarian to schedule your certification date. Your agents role at certification time is to make sure the office records are correct and that your heifer has met all requirements. Here is a reminder about the requirements at certification time:

1. Free of disqualifying blemishes
2. Body condition score between 5 and 7
3. Lepto vaccinated
4. Wormed for internal and external parasites
5. Disposition scored.

Once your heifer has met all requirements, they will be tagged with the official certified tag.

The other process you should be thinking about includes determining your marketing strategy for your heifers. If marketing your heifers through the special sale, start thinking about sorting your heifers into specific sale lots. It is a requirement of the program that all heifers in a sale lot must have an estimated calving window of less than 45 days; however, it might be a better marketing decision to group your heifers by 30 days calving windows. Other things to possibly think about in regards to sale lot determinations is grouping heifers by:

- Sire group (All AIed or all natural service)
- Heifer color/breed
- Heifer size (frame score and/or weight)
- Sisters (siblings or half-sibs)
- Tight calving groups (2-3 week)

In your packets there is a sale lot sheet, please fill that out as soon as your heifers have been certified and get them sent to your agent or Jaymelynn so sale catalogs can be printed and distributed. The absolute last date for sale information is October 15, however, if you already have an idea of how many sale lots you will like to enroll in the sale and have an idea of how you want to sort your heifers you can turn that into Jaymelynn now. The sooner she has all that information, the quicker she can make the sale catalog.

Also, please make sure you have TURNED IN ALL PAPERWORK, including a document indicating that all heifers have been tested and are negative for BVD-PI. Also, you do not have to use the exact forms provided, but make sure all the information on the forms is documented in the paperwork you have turned into your agent or to Jaymelynn.

The purpose of this program is to provide cattle producers "best management" guidelines for replacement heifers and provide educational opportunities for improvements in revenue, reproductive success, and longevity within their cattle operation.

Program is a joint effort between K-State Research and Extension and the Kansas Department of Agriculture

Kansas Department of Agriculture