The New Roger

I was welcomed to the Cape Girardeau County Extension office on October 1, 2014. I quickly discovered the large shoes to fill of my predecessor, Roger Eakins. Roger has provided much influence not only through his counties served, but across the entire state. The ability to work beside Roger has greatly helped my adjustment from student to extension professional and initiated me to programs in the area, but enough about Roger!

I hail from the small town of Green Ridge, Missouri located just outside Sedalia. My parents have a 160 ac. farm raising cattle and row crop and four generations of my family currently reside in Green Ridge. While enjoying my experience in South Dakota for the past two years, it feels good to be back to the home state (and hopefully more mild winters)!

I received my Bachelor of Science degree in Animal Science from the University of Missouri – Columbia in 2012 followed by a Master of Science degree in Animal Science from South Dakota State University in August 2014 specializing in Beef Reproductive Physiology. My research focused on fertility in beef cows/heifers at the ovarian level, specifically, estradiol production within the follicles and its influence on the female reproductive system. I participated in a reproductive management internship with U of Mo/Select Sires where I learned techniques of artificial insemination and have continued this avenue as I have helped teach artificial insemination school activities to students and extension audiences. I have had the opportunity to present at national and international scientific meetings including travel to Indiana, Michigan, Canada, and most recently, Japan. Attending meetings such as these provides interesting and valuable topics for me to share with the public. It is my goal to educate/update my extension audience on new technologies or management practices which may benefit their production system through press articles, newsletters, informational meetings, etc. While developing my own programs, I understand it is essential to continue valuable programs such as the SMS Heifer Replacement Program and the Performance Tested Bull Sale. I want to extend my appreciation for the warm-hearted welcome and I look forward to serving the Southeast Region.

Performance Tested Bull Sale

The 75th Southeast Missouri All-Breed Performance Tested Bull Sale was held on October 24, at the Farmington Auction barn. Fifteen consigned bulls sold in a mere 25 minutes bringing an average value of $4487. Consignments included 1 Simmental, 4 Charolais, and 10 Angus bulls. The top price bull sold for $6500 and many of the bulls were SMS Qualified heifer bulls.

The next sale will be held March 27, 2015.

For more information on consigning bulls to the sale contact:
Darrell Aufdenberg, Sale Manager
573-270-6755
Kendra Graham, Livestock Specialist
573-756-4539
Erin Larimore 573-243-3581
The majority of bulls sold in the Southeast Mo All-Breed Performance Tested Bull Sale this October were yearlings. A potential hurdle for young bulls is the ability to pass a Breeding Soundness Exam (BSE), which measures the bull’s ability to meet minimum standard for testicular development, sperm motility, and normal sperm morphology. Overcoming this hurdle can have great impact on production systems as using bulls at an early age reduces production costs, shortens the generation interval and may increase genetic gains. In addition, yearling bulls used at an appropriate bull to female ratio achieved fertility comparable to that of 2-yr-olds.

The main factor involved in semen quality of yearling bulls is age of puberty, and subsequently maturity. Therefore, programs which hasten maturity will improve the successful use of yearling bulls in production systems and potential qualification for Performance Tested Bulls Sales. Both pre- and post-weaning nutrition have been reported to influence age at puberty, testes size, and sperm production.

### Pre-weaning

Clinical evidence supports that calfhood nutrition effects age at puberty and testes size. Bulls raised by first parity dams had decreased 365-d scrotal circumference compared to bulls raised by older dams (5 – 9 yrs). The observed difference is presumably a factor of increased milk production by older dams. Improved nutrition (160% NRC) from 2 to 6 months of age hastened puberty and increased yearling scrotal circumference while bull calves fed poor nutrition (60% NRC) during this time frame had delayed puberty, smaller testis, and reduced sperm production. The negative impacts of poor nutrition during early development could not be overcome by improving nutrition following 6 months of age. Therefore, careful attention must be paid to calf nutrition prior to weaning.

### Post-weaning

Bulls receiving high energy (80% grain/20% forage) from weaning (6-7 mo) until 15 months of age had greater body weight and backfat, but had no change in paired testes weight compared to bulls fed medium energy (100% forage). However, bulls receiving high nutrition had less daily sperm production and sperm reserves and an increased incidence of abnormal sperm. This reduction in sperm production may be attributed to increased fat deposition in the scrotum of animals fed high energy diets, impairing heat dissipation from the testes reducing sperm production and semen quality. To determine the effect of average daily gains with
age at puberty and at maturity and reproductive development bulls were developed on varying concentrate diets (none, 14%, or 37%) consisting of rolled barley and canola meal from 6 to 16 months of age. These diets did not result in excessive fat accumulation in the scrotum, increased scrotal temperature, or reduction in sperm production and semen quality. Therefore average daily gains of approximately 1.0 to 1.6 kg/d should be targeted for beef bulls to achieve optimal reproductive development.


**Considerations**

To ensure optimal reproductive development and function both pre- and post-weaning nutrition should be monitored closely. Under-nutrition during calfhood can negatively impact reproductive development which may not be reversed by increased post-weaning gains. As we move into the winter months, supplementation can be a beneficial tool if you are raising bulls, especially bulls from young dams. Further, excessive post-weaning gains can impair sperm production and bull fertility, therefore a balanced diet to achieve moderate weight gains post-weaning is recommended.

References:

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**Show-Me-Select Heifer Sale: Dec. 6, 2014**

The Show-Me-Select Heifer Sale for SE Mo. Spring Calving will be held on **December 6, 2014** at 1:00 at Fruitland Livestock Auction. It includes 170 bred heifers mostly Angus Cross with some Simmental-Angus. These heifers are 98% Black or BWF, 55% A.I. Bred, 70% Fetal Sexed, and due to calve from January 1 to April 25, 2015. Heifers will be sold in uniform lots by breed, color, size, calving date, and fetal sex (if available).

Catalogs are available at the Cape Co. Extension office or available by mail: please contact Teresa 573-243-3581 to receive a catalog by mail.

Consigners:
- Besand & Pecaut, Perryville
- Birk Cattle Co, Jackson
- Glen Birk Farms, Jackson
- Crooks Farm, Leeton
- Deer Creek Cattle Co, Clarksville
- Floyd Ferrell, Sikeston
- Willis Koenig, Perryville
- McClure Farms, Perryville
- Lazy P Ranch, Oak Ridge
- Eli Sample, Annapolis
- Kenny Spooler, Jackson
- Turner Farms, Belgrade
Welcome Joel Tatum, Livestock Specialist

On November 10 we welcome Joel Tatum, a new faculty member to Southeast Region. Joel also joins extension as a Livestock Specialist. He will be headquartered in Wayne County.

Joel has a Bachelor of Science degree in Agriculture, and a Master of Animal Science degree, both degrees from Murray State University, Murray Kentucky.

Joel's work experience includes working with an alternative energy company; and serving as a store manager and a training manager for Orscheln Farm and Home stores in 5 locations in Missouri. In addition, Joel served as an assistant herd manager on a large Angus cow farm in north Missouri. While at Murray State Joel was assistant barn manager at the university's equine center.

BQA Training and Certification: Jan. 8, 2015

The state Beef Quality Assurance program is a voluntary program linking all beef producers with livestock production specialists, veterinarians, nutritionist, marketers and feed purveyors interested in maintaining and improving the quality of cattle and the beef they produce.

BQA programming focuses on educating and training cattle producers, farm advisors, and veterinarians on the issues in cattle food safety and quality. It also provides tools for verifying and documenting animal husbandry practices.

The program will be presented by Craig Payne, UMC Associate Extension Professor, Extension Veterinary Medicine. This 2 1/2 hour session is designed to train and certify producers in Beef Quality Assurance.

Sponsors:
SEMO Cattlemen’s Association
University of Missouri Extension

Meeting will be held at the Cape Girardeau County Extension Center– Lower Level at 7 p.m.

Call and reserve your seat by January 5th. 573-243-3581

University of Missouri Extension

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