

PASTURE TO MARKET

Providing beef cattle information for producers in Louisiana.
July – August 2020



Northeast Region

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www.LSUAgCenter.com

July 2020 Events

14: Beef Brunch Educational Series
– Winter Pasture Options
presented by Dr. Ed Twidwell

20: Dean Lee Research Station
Virtual Field Tour –
<https://bit.ly/DeanLeeYouTube>
Topics will include Body Condition
Scoring, Breeding Soundness
Exams, Hay Meadow Management
and Weaning Techniques

August 2020 Events

11: Beef Brunch Educational Series
– Grazing Management presented
by Dr. Guillermo Scaglia

Heat Stress Impacts All Aspects of Cattle Reproduction

A. Edwards – LSU AgCenter

When summer begins to approach, farmers and ranchers begin to prepare for extreme heat and the humidity that often accompanies it. For cattle producers, this often includes checking shade structures and water sources, as well as making a grazing plan for the warm-season pastures. When high temperatures set in for days (or weeks) at a time, the internal body temperature of livestock can also increase, potentially resulting in decreased performance.

Stressors, including heat, stimulate a release of corticotropin-releasing hormone (CRH) then adrenocorticotrophic hormone (ACTH) from the brain. In turn, ACTH triggers production of catecholamines and glucocorticoids to ease the effects of stress. However, as these work to alleviate stress, the brain also decreases the release of reproductive hormones (gonadotropin releasing hormone, follicle stimulating hormone and luteinizing hormone). Consequently, this compounds to reduce reproductive function in both males and females.

When heat stress occurs during the breeding season, pregnancy rates can decline as much as 25-50%. Similarly, pregnancy losses may increase 25% or more through the first trimester. This is largely due to decreased production of reproductive hormones from the brain and reproductive tract. Comparably, increased environmental temperatures impact quality of sperm, despite multiple thermoregulatory mechanisms working to cool testes for sperm production. Ultimately, compromised embryo quality results in poor survival rates when fertilization does take place. Moreover, decreased libido is also common during times of heat stress.

Cows subjected to heat stress in mid- to late gestation may experience decreased blood flow to the uterus and placenta. Decreased blood flow leads to a reduction in nutrients being carried to the developing calf. While loss of pregnancy may not occur, lower birth weights are possible if stress is prolonged. If heat stress is experienced post-calving, an extended post-partum interval may occur. Decreased milk yields are also common in times of excessive heat stress.

Producers can start to diminish the effects of heat on cattle by providing shade and utilizing evaporative cooling techniques, when possible. While misting systems are not always the most applicable to beef cattle operations, shading feed and water sources is advantageous. Try to minimize the distance cattle need to travel to a water source. Likewise, ensuring your cattle are receiving a balanced diet is always valuable. Heat is stressful on forages, just like it is on livestock. Do your best to prepare for the proper feed supplementation to meet the energy and nutrient requirements of the herd. While all aspects of the environment cannot be controlled, its effect can be mitigated.

For more information, please feel free to contact me at akedwards@agcenter.lsu.edu or 512-818-5476.

Sign up for important updates from LSU AgCenter

If you would like to join the La. Beef Cattle text group, follow these instructions: If you have a smartphone, get push notifications. On your iPhone or Android device, open your web browser and go to rmd.at/labeef. Follow the instructions to sign up for Remind. You will be promoted to download the mobile app.

If you do not have a smartphone, and would like to get text notifications, text the message @labeef to the number 81010. If you have trouble with 81010, try texting @labeef to (971)302-2073.

Beef Brunch Educational Series

The LSU AgCenter will be hosting a free webinar, “Winter Pasture Options”, on Tuesday, July 14, 2020 at 10:30 a.m. as part of the Beef Brunch Educational Series.

Dr. Ed Twidwell, Professor in the LSU School of Plant, Environmental and Soil Sciences, will be discussing winter forage options for livestock producers.

This webinar will be hosted through Microsoft Teams. An internet connection is required but a microphone and webcam are not necessary. The Teams application may be downloaded by smartphone or tablet. Participants may join by accessing the webinar online under “Future Webinars” at <http://lsuagcenter.com/beefbrunch>. We recommend that participants test the system’s connectivity before the meeting.

Participants may also join by telephone for audio only by calling 1-225-614-2374 and using conference identification code 239 384 944#.

The Beef Bruch Series also includes bi-weekly news updates featuring weather and forage conditions, a market outlook, management tips, events, and current topics in the beef industry. These videos are released every-other Monday at 10:30 AM on the LSU AgCenter – Livestock channel on YouTube.

For more information on the Beef Brunch webinar or news update, please contact Ashley Edwards at 512-818-5476 or akedwards@agcenter.lsu.edu



Soil Health in Forage Systems

E.K. Twidwell, M.W. Alison – LSU AgCenter

In the past several years there has been a great deal of interest in the topic of soil health. While this term is somewhat difficult to define, the Natural Resource Conservation Service (NRCS) defines soil health as “the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals and humans.” For many decades, soil health was determined by measuring the physical and chemical properties of soil. These measurements included such items as soil drainage, infiltration rate, fertility, and many others. However, one aspect of soil that has been neglected for many decades is the biologic factor. Soil can no longer be viewed as an inert growing medium, but rather as a living ecosystem comprised of billions of bacteria, fungi, and other microbes. This shift in thinking reflects the desire of producers, agricultural researchers, and other agricultural professionals to protect the long-term sustainability of soil, water, and cropping systems.

The NRCS has outlined four basic soil health principles. These include: 1) minimize soil disturbance; 2) keep soil covered; 3) maximize plant diversity; and 4) maximize the period of living root growth. Presently there are many different public and private entities throughout the United States working to develop different cropping systems to optimize these four principles and strengthen long-term environmental sustainability. One major issue that remains is how to quantify soil health. Scientists are currently working to develop a broadly applicable, relatively inexpensive, yet scientifically robust soil health test kit for producers to use.

There are many research studies currently being conducted across the United States that are dealing with various aspects of soil health. Perennial grass pastures, which are typical across the southeast US, are rarely extensively disturbed and maintain soil cover and live roots even when dormant. With Louisiana forage systems, the emphasis has been on evaluating different cool-season grasses, legumes, and brassica species for their impact on the soil health of pastures. The emphasis has been on seeding these cool-season forages into existing perennial warm-season grass pastures and measuring the effect on soil chemical, physical and biological parameters. Soil biological activity is primarily controlled by the availability of soil organic matter or organic exudates from the plant roots. The inclusion of cool-season annual forages provides actively growing roots during a period when root growth is minimal from warm-season grasses. It has been shown that the cool-season forages can increase soil carbon (C) and nitrogen (N) and enhance microbial activity and aggregate stability. Death and degradation of the annual forage roots leaves macropores in the soil which along with improved aggregate stability can lead to improved water infiltration rates.

The various functional groups (grasses, legumes, and brassicas) were included in studies because they present different potential benefits. Grasses offer greater forage production as well as extensive root growth potential while legumes could enhance N input into the system and brassicas could reduce soil compaction because of larger taproots. Results indicate brassicas are not well suited for planting in warm-season perennial grass sods in the fall as slow development in this situation and winterkill minimize the effect of brassicas.

USDA to Survey Cattle Operations

K. Broussard – USDA-NASS

Baton Rouge, Louisiana – In July, the U.S. Department of Agriculture’s National Agricultural Statistics Service (NASS) will survey nearly 200 cattle operations statewide to provide an up-to-date measure of the United States cattle inventory.

“This information helps producers make timely, informed business decisions and plan for herd expansion or reduction. It also helps packers and government leaders evaluate expected slaughter volume for future months and determine potential supplies for export,” explained Kathy Broussard, State Statistician, Louisiana Field Office. “Obtaining the current count of cattle will serve as an important decision-making tool for the entire agriculture industry.”

During the first two weeks of July, Louisiana producers will have the opportunity to report their beef and dairy cattle inventories, calf crop, death loss and cattle on feed information. To make it as easy as possible for producers to

participate in the survey, NASS offers the option of responding via the internet, mail, or telephone with a local NASDA representative.

The July Cattle Report will be released on July 24, 2020. All NASS reports are available online at www.nass.usda.gov/Publications/index.php. For more information, call the NASS Delta Regional Office at (800) 327-2970.

| | | Week of 6/26/2020 | Week of 6/19/2020 | Week of 6/28/2019 |
|--|--|----------------------|----------------------|----------------------|
| <i>Data Source: USDA-AMS Market News</i> | | | | |
| 5-Area Fed Steer | all grades, live weight, \$/cwt | \$ 100.78 | \$ 104.47 | \$ 110.13 |
| | all grades, dressed weight, \$/cwt | \$ 160.70 | \$ 166.40 | \$ 179.02 |
| Boxed Beef | Choice Price, 600-900 lb., \$/cwt | \$ 210.20 | \$ 220.34 | \$ 219.55 |
| | Choice-Select Spread, \$/cwt | \$ 8.53 | \$ 11.62 | \$ 21.60 |
| 500-600 lb. Feeder Steer Price | Mississippi statewide market average, M&L #1-2, \$/cwt | \$ 132.83 | \$ 133.55 | \$ 132.00 |
| | Missouri statewide market average, M&L #1, \$/cwt | \$ 156.97 | \$ 156.03 | \$ 161.00 |
| | Oklahoma City market average, M&L #1, \$/cwt | \$ 147.87 | \$ 151.44 | \$ 156.86 |
| Feed Grains | Corn, Kansas City, \$/bu | \$ 3.25 | \$ 3.39 | \$ 4.45 |
| | Corn, Pine Bluff, AR, \$/bu | \$ 3.29 | \$ 3.35 | \$ 4.38 |
| | DDGS,Iowa, \$/ton | \$ 128.50 | \$ 130.00 | \$ 131.50 |
| | Soybean Meal, Rail, Central IL, \$/ton | \$ 288.50 | \$ 290.30 | \$ 321.20 |
| | Cottonseed Meal, Memphis, \$/ton | \$ 232.50 | \$ 247.50 | \$ 215.00 |
| | Whole Cottonseed, Memphis, \$/ton | \$ 215.00 | \$ 210.00 | \$ 250.00 |

USDA-ERS Livestock Outlook – June 17, 2020

Meatpacking Facilities Recover Capacity Utilization Rapidly - Over the past 2 months, U.S. beef packers had to implement new health protocols for dealing with COVID-19 that might have hindered their ability to process cattle. However, they have recouped much of the lost slaughter capacity in a very timely manner since hitting the lowest levels at the end of April. At the lowest point, steer and heifer slaughter fell by as much as 41 percent below a year ago, and the slaughter of cows and bulls dropped to 9 percent below a year ago. Based on USDA, Agricultural Marketing Service estimated weekly slaughter for the week ending June 13, steer and heifer slaughter recovered to 4 percent below the same week a year ago, and cow and bull slaughter improved to 7 percent above the same week last year.

2020 Beef Production Raised on Pace of Slaughter - As mentioned, packing facilities have recovered much of their capacity from last year's levels, and this has occurred faster than projected in last month's analysis. Accordingly, the anticipated pace of slaughter for 2020 was raised for the remainder of this quarter and the second half of the year. The beef production forecast for second-quarter 2020 was raised by 370 million pounds to just over 6 billion pounds, 12 percent below last year and the lowest for the quarter since 2015. The production forecast for second-half 2020 was raised from last month on the expectation that beef packing facilities will maintain capacity just below year-ago levels. As a result, the annual beef production forecast for 2020 was increased 910 million pounds from last month to 26.7 billion pounds, about 2 percent below 2019 levels.

As more fed cattle are expected to be marketed in second-half 2020, it is anticipated that feeder cattle placements will also increase during that time. This adjustment in the analysis increased fed cattle slaughter in the first half of 2021, which was partially offset by fewer fed cattle slaughtered in the second half. Beef production in 2021 is forecast marginally higher at 27.6 billion pounds, up 85 million pounds from last month.

Cattle Prices Adjusted on Price Strength - In the second quarter, the capacity of beef packing plants to slaughter fed cattle was reduced by as much as 41 percent, which prompted lower prices for fed cattle. As beef production declined, wholesale beef prices skyrocketed, which greatly expanded packer margins. However, as packers' capacity to slaughter began to rebound at the beginning of May, increasing demand for cattle, it likely increased their willingness to pay higher prices for cattle.

Currently, wholesale beef prices have declined rapidly from recent peaks, as suggested by the comprehensive beef cutout value (down 27 percent for the week ending June 5 from its peak). This would result in declining packer margins as fed cattle prices rose over the same period. As the volume of fed cattle slaughter has risen close to year-ago levels, analysis suggests that prices should weaken seasonally, particularly given the volume of market-ready cattle that have backed up in feedlots in the second quarter.

Based on the May price of \$111.53 per cwt for fed steers marketed for slaughter in the 5-Area marketing region—up more than 9 percent above April—and price strength in early June, the second quarter 2020 price forecast for fed steers was raised \$3 to \$104 per cwt. With the expectation of increased demand for slaughter cattle, the price forecast for both the third and fourth quarters was raised \$6 to \$105.00 and \$106.00 per cwt, respectively. Further, the first-quarter 2021 price forecast was raised by \$3 to \$104.00 per cwt.

With higher anticipated fed cattle slaughter in 2020, feedlot marketings will increase. A faster pace of marketings and higher forecast fed cattle prices than last month will likely improve feedlot demand for feeder cattle. Based on recent price data, the second-quarter 2020 feeder steer price was raised by \$5 to \$126.00 per cwt. The third-quarter 2020 price forecast was raised \$9 to \$132.00 per cwt, and the fourth-quarter 2020 price was raised \$13 to \$131.00 per cwt. As a result, this month's annual price forecast for 2020 was \$131.40 per cwt, almost \$7 above last month's forecast. This price strength was carried over into first-quarter 2021 for a forecast of \$129.00 per cwt, up \$4 from last month. The 2021 annual feeder steer price is forecast at \$133.00 per cwt.

Effectiveness of Insecticide Applications on Bermudagrass Stem Maggot (BSM)

W.F. Anderson, Lisa Baxter, Dennis Hancock, and Will Hudson - University of Georgia

As part of the integrated pest management to mitigate bermudagrass stem maggot (BSM) more efficient and environmentally sound insecticide spray regimes need to be developed. The primary preventive spray recommendation is to spray two times with a pyrethroid and a Spinosad. Two forage bermudagrass cultivars (Tifton 85 and Alicia) were established in large (30' x 192') plots from sprigs to obtain a continuous stand. After full establishment, a 4-replication split plot RCBD design was employed with 8 spray treatments for each variety. Each treatment block consisted of a 6' wide strip for the full 30' length. The treatments were: 1) no spray; 2) spray once (10 days after clipping) with pyrethroid only; 3) spray twice (10 days after clipping and again 7 days after the first spray) with pyrethroid only; 4) spray once (10 days) with Spinosad only; 5) spray twice (10 and 7 days) with Spinosad only; 6) spray once with both pyrethroid and Spinosad; 7) spray twice with both pyrethroid and Spinosad; 8) spray both every week until harvest. Treatment 1 is the negative control and treatment 8 is the positive control. BSM appeared as early as June in 2017, 2018 and 2019. Dry matter yields significantly differed between treatments for clippings in July, August, and September. Spinosad treatments were no better than the non-sprayed control and protection was not enhanced when Spinosad was combined with pyrethroids. Two sprays with pyrethroids was the best control but did not eliminate BSM damage.

Source: 2020 AFGC Proceedings



Bermudagrass stem maggot larvae

July - August 2020

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