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Mississippi Beef Cattle Improvement Association

Mississippi Beef Cattle Improvement Association—Productivity and Quality

Management Decisions after a Drought

With input prices on the rise and hay inventories very low, producers face many challenges and choices coming out of the winter. Some management considerations to examine closely for individual cattle operations are listed here:

Pregnancy checking and cow culling: While many operations in the state implemented adequate winter nutritional programs, some operations have come out of the winter with relatively thin cows and heifers in their herds. This could impact rebreeding rates this spring. Pregnancy checking and cow culling decisions are particularly important in this situation and are even more critical with limited or expensive feed and forage resources. Marketing strategies should be developed for cull cows.

Controlled breeding season maintenance: If cows are thin going into the breeding season and are still cycling when it is time to put the bull up, then it may be tempting to leave the bull out for additional weeks. It often takes several years to develop a controlled breeding season, and one season of leaving the bull out too long can put an operation back in a lengthy or uncontrolled breeding season. Do not forget the numerous advantages to maintaining a controlled breeding season when facing decisions on how to deal with open cows.

Feed purchasing preparations: Feed can often be purchased at lower prices during the summer months. Bulk purchasing can further reduce costs. Storage and handling of bulk feedstuffs may require development of additional storage and feeding facilities. Feed comparisons should consider price, nutrient levels, storage, handling, and feeding limitations.

Forage plans: Ensuring forage stand productivity is critical to supplying nutrition to cattle herds and requires proper fertilization and liming. Inclusion of legumes such as white clover into forage systems may be more attractive with increasing fertilizer prices. Forage supplies should be matched with cow herd needs. For example, fall-calving herds require additional nutrients during the winter months for desirable rebreeding performance and should be matched with good winter forage programs. Consider establishment of perennial and high quality forage crops as part of a long-term forage plan.

Hay supplies for next winter: If hay supplies are depleted, then it may take higher quantities of hay purchased or produced this summer to replenish hay stocks on the farm. Forage testing will give an indication of supplementation requirements for existing forage supplies. Higher quality stored forage requires less feed supplementation. Baleage may be a good option for some operations. It may also be necessary to acquire hay more aggressively earlier in the summer to ensure adequate supplies going into the hay feeding period. Minimizing hay storage and feeding waste is essential to best manage per unit hay feeding costs.

Cost of production: Cost of production is likely in a state of change in most beef cattle operations as many common input prices trend higher. Accurate knowledge of production costs can help in making informed production and financial decisions to keep the operation on a profitable track.

The value of information for marketing: Tightening profit margins can make it even more worthwhile to consider production and marketing strategies that result in financial rewards for tracking and providing information demanded by the marketplace. Basic information such as age and source verification can be documented for targeted marketing programs and to increase the chances of capturing market premiums. Take time to research these marketing options and position the operation for these opportunities.

Upcoming events:

- March 8-10—Young Cattlemen's Conference, Jackson, MS
- March 15-17—MSU Artificial Insemination School, MSU campus
- April 12—Magnolia Beef and Poultry Expo, Raleigh, MS
- April 16-18—Alabama Beef Excellence Program, Auburn, AL
- May 8—South MS Gain on Forage Bull Test Sale, Tylertown, MS
- June 6-9—Beef Improvement Federation Annual Convention, Fort Collins, CO
- June 28-29—Cattlemen's Cooler College, MSU Meats Lab, Mississippi State, MS
- September 14-15—Master Stockman Program, MSU Beef and Horse Units, Mississippi State, MS

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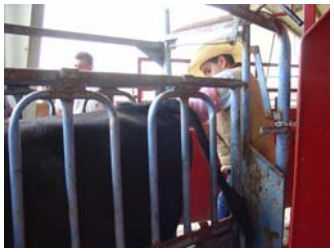
Six Factors for Better AI Results



Effective management in key areas can improve AI results

Most artificial insemination (AI) programs rely heavily on a wide array of estrus synchronizing programs now available in the marketplace. But success can vary widely, so it's critically important for producers to understand what factors can negatively affect their AI programs and how they can be managed for the better.

"The key to synchronizing estrus in cows and heifers," explains Cliff Lamb of the University of Minnesota, "is knowing that there are six basic factors that can hurt success, and understanding that most of these factors can be overcome through improved management practices."

Factor 1—Age differences in females
Two-year-old cows have more difficulty initiating estrus than older cows, even when they calve earlier than older cows.

"Younger cows have greater energy needs than older cows," says Lamb. "They need more energy for lactation, and they need more energy because they're still growing. Both of these things take priority over the female's ability to begin her postpartum estrous cycles."

On the other hand, an older cow's first priority is to maintain essential body functions, and once those requirements are met, remaining nutrients can accommodate much more easily both lactation and initiation of estrous cycles.

"Older cows have no growth requirements, so nutrients are more likely to be prioritized for milk production and initiation of estrous cycles. Because of this priority system, young, growing cows generally produce less milk and remain in anestrus for a longer period of time," says Lamb.

Producers should manage their young cows differently than they do their older cows. Young cows need more energy and higher quality nutrients—especially in the weeks leading up to and directly after calving.

"If you can provide your younger cows with better care, you'll have much better results when you synchronize and AI them later," Lamb says.

Factor 2—Days since calving
As a general rule, the longer the period between calving and synchronization, the better the breeding results.

"Estrous synchronization should not occur prior to 45 days after the birth of the calf," says Lamb.

Factor 3—Recordkeeping
Producers should maintain good recordkeeping systems as a way of achieving success in their synchronization systems.

For synchronization to work, producers need to know when their cows calved, whether the cow had a difficult birth and what the birth weights of all the calves were.

"Producers should target starting their estrous synchronization protocols when cows are greater than 45 days from calving; however, if a specific cow had difficulties calving or a large calf, it's advisable to wait an extra few weeks. Without accurate records, these decisions can be extremely subjective," says Lamb.

Factor 4—Facilities
With estrous synchronization, producers can expect more females to be in heat at a single time than without synchronization. Thus, producers will need adequate facilities to handle the larger numbers of cattle.

In addition, synchronization programs require that females be handled in chutes for injections more frequently than usual; therefore, working facilities need to be able to accommodate extra work.

"Not only do you need reliable holding and sorting pens, you should also have a solid alley and chute system," says Lamb. "Anticipating an increase in facility use will certainly contribute to a successful synchronization program."

Factor 5—Labor
Reliable labor is an issue that many people neglect to consider when planning their estrous synchronization programs. Detecting when cows are in heat is important for the success of a synchronization program, and that requires a commitment to having people on location to observe for cows in heat.

"Any labor associated with this process needs to know exactly how cows act when they are in heat," says Lamb. "In many

"Detecting when cows are in heat…requires a commitment to having people on location to observe cows in heat."

Better AI (Cont.)

cases, this is often when a program fails. A producer feels that they have more important things to do than spend time heat checking. They will often leave for the 'more important' job or leave the heat checking to a less than competent individual. The end result is poor estrus response or poor conception rates."

Factor 6—Herd health and nutrition
Producers who wish to improve their AI results should also have a veterinarian-approved vaccination program to protect the health of their breeding animals. In addition, producers should continuously monitor their animal nutrition programs throughout the year, ensuring not only that their cattle have adequate feed and water available, but also important minerals and protein.

Source: National Association of Animal Breeders (NAAB), www.naab-css.org.

"…If a bull is superior to another bull in his ability to transmit heavier muscling, enhanced carcass characteristics, or other economically important traits to his calves, then even higher premiums may be justified in his purchase price…"

How Much is a Bull Worth?

Performance information along with and expected progeny differences (EPDs) give an indication of the expected performance of a bull's calves for particular traits such as growth performance relative to the performance of calves sired by another bull or group of bulls. Using this information, educated purchasing decisions can be made regarding the purchase price differences that can be justified when comparing bulls.

To illustrate differences in bull value, here is an actual production scenario. Bull A and Bull B were exposed to cows of similar genetic merit. Bull A sired calves that weighed on average 536 pounds at weaning. Calves sired by Bull B weighed 643 pounds on average at weaning.

Weaning weight difference between Bull B and Bull A = 643 pounds – 536 pounds = 107 pounds.

Lighter weight calves typically sell at a higher price per pound than heavier weight calves. If calves sired by Bull A could be sold for $1.10 per pound and calves sired by Bull B could be sold for $0.95 per pound then gross returns from each bull would be as follows:

Bull A: 536 pounds x $1.10 per pound = $589.60 per calf sold,

Bull B: 643 pounds x $0.95 per pound = $610.85 per calf sold.

The difference in gross returns per calf would then be:

$610.85 (Bull B) - $589.60 (Bull A) = $21.25 per calf.

If each bull can be expected to sire 25 calves per year, then the difference in gross returns per year between the two bulls would be:

$21.25 per calf x 25 calves per year = $531.25 per year.

Over 5 years, the difference in gross returns between the two bulls would be:

$531.25 per year x 5 years = $2656.25.

If Bull B cost $1,000 more than Bull B, then it would take 20.9 months to capture the difference in purchase price with added returns from calf sales:

$1,000 / $531.25 per year = 1.88 years or 22.6 months.

Using Bull B as a herd sire beyond 22.6 months (less than 2 years) more than justifies paying the $1,000 premium for him over Bull A. This ignores interest and depreciation costs and assumes that there are only weaning weight differences in the calves sired by the two bulls. If Bull B is also superior to Bull A in his ability to transmit heavier muscling, enhanced carcass characteristics, or other economically important traits to his calves, then an even higher premium may be justified over the same payback period.

This illustrates the financial importance of making bull-purchasing decisions based on as much useful and reliable information as is available. The Mississippi BCIA annual fall bull sale continues to be a good source for quality bulls with extensive performance and genetic information.

Investing in good genetics will pay dividends that often greatly exceed premiums paid for superior bulls

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Visit MBCIA online at http://msucares.com/livestock/beef/mbcia/

MBCIA Membership Application

Name:_____

Address:_____

City:_____

County:_____ State:_____ Zip:_____

Phone:_____ Email:_____

(Check one) Seedstock:____ Commercial:____

Cattle breed(s):_____

Completed applications and $5 annual dues payable to Mississippi BCIA should be mailed to:

Mississippi Beef Cattle Improvement Association
c/o Jane Parish, Extension Beef Specialist
Box 9815, Mississippi State, MS 39762

BCIA Genetic Profit Tips—March 2007

Tax season is here once again, a reminder of the importance of keeping good records. In addition to keeping up with herd financial information, cattle producers should maintain adequate production records. Informed animal selection and management decisions are facilitated by the use of cow herd production records. By keeping up with financial records as well, producers can evaluate the profitability and cost-effectiveness of these decisions.

Identifying individual animals in the herd is an important first step in developing a record-keeping system. Ear tags should be permanently marked and easy to read at a short distance. Since cattle lose ear tags from time to time, it is useful to have a more permanent method of identification, such as ear tattoos. Calves should be tagged and tattooed at birth and matched with their dams. Calf birth date and sex should also be recorded.

Recommended production records to keep include: cow ID, calf ID, sire ID, calf birth date, calf birth weight, calf sex, calving ease score, breed of dam, breed of sire, breed of calf, weaning date, weaning weight, weaning management group, calf disposition and cow disposition. Collection of weaning weight information requires a scale. Plan ahead if a scale needs to be acquired. Because adjusted calf weaning and yearling weights take the age of dam into consideration, ages of breeding females in the herd should be recorded. If cow ages are unknown, they can be estimated by observing the number of incisors as well as tooth wear. Breeding records should include lists of all cows and heifers exposed to either natural service or artificial insemination. This information is important for calculating calving and weaning percentages. Insemination dates, bull ID, and female ID should be recorded for AI. For natural service, recorded information should include bull ID's, female ID's, and dates when bulls are turned in and out of breeding paddocks. Pregnancy status information assists in culling decisions. In addition, health records and management practices should be recorded as part of herd production information.

Meaningful cow-calf records may be pen and paper, computerized or a combination of the two methods. Pocket-sized record books are useful for keeping handwritten herd records. Calendars and journals are other places where handwritten records can be kept. Whether handwritten or computerized record-keeping systems are used, it is important to organize records so that they are easy to interpret. Keep backup files and hard copies of computerized records in case records are lost. Computerized record-keeping cow-calf software programs can be purchased at a cost ranging from approximately $100 to $700. Before deciding to purchase a particular program, it may be worthwhile to try out a free demonstration copy if available. Other considerations for software purchasing decisions include computer requirements, program features, compatibility with breed association requirements, and technical support.

The keys to an effective record-keeping system are to: 1) decide what production and financial information is useful to have and practical to collect, 2) collect accurate information in a timely manner, 3) manage that information in a usable form and 4) use the information for improving animal selection/culling and herd management decisions.