

Guide to abbreviations and acronyms

To make the "Angus Advisor" more concise and consistent, we have used the following abbreviations or expressions:

| TOLLOWII | ng abbreviations or expressions: |
|---|---|
| \$Value | dollar value indexes |
| ADG | average daily gain |
| Al | artificial insemination |
| AIMS | Angus Information |
| | Management Software |
| BCS | body condition score |
| BLV | bovine leukemia virus |
| BMP | best management practices |
| BQA | beef quality assurance |
| BRD | bovine respiratory disease |
| BRSV | bovine respiratory synctial virus |
| brucelle | |
| BSE bo | ovine spongiform encephalopathy |
| BVD | bovine viral diarrhea |
| Ca | calcium |
| CHAPS | Cow Herd Analysis and |
| C117 11 3 | Performance System |
| CP | crude protein |
| cwt. | hundredweight |
| DM | dry matter |
| EPD | expected progeny difference |
| ET | embryo transfer |
| FMD | foot-and-mouth disease |
| GnRH | gonadotropin-releasing hormone |
| IBR | infectious bovine rhinotracheitis |
| ID | identification |
| IM | intramuscular |
| in. | inch |
| lb. | pound |
| LCT | lower critical temperature |
| lepto | |
| ισρισ | IEDIOSDIOSIS |
| Mø | leptospirosis |
| Mg MiG | magnesium |
| MiG | magnesium management-intensive grazing |
| MiG MLV | magnesium management-intensive grazing modified-live virus |
| MiG MLV N | magnesium management-intensive grazing modified-live virus nitrogen |
| MiG MLV N P | magnesium management-intensive grazing modified-live virus nitrogen phosphorus |
| MiG MLV N P | magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection |
| MiG MLV N P PI PI ₃ | magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus |
| MiG MLV N P PI PI ₃ preg-ch | magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus eck pregnancy-check |
| MiG MLV N P PI PI ₃ preg-ch Se | magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus eck pregnancy-check selenium |
| MiG MLV N P PI PI ₃ preg-ch Se sq. ft. | magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus seck pregnancy-check selenium square feet |
| MiG MLV N P Pl Pl ₃ preg-ch Se sq. ft. SPA Si | magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus leck pregnancy-check selenium square feet tandardized Performance Analysis |
| MiG MLV N P PI Pl ₃ preg-ch Se sq. ft. SPA St | magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus teck pregnancy-check selenium square feet tandardized Performance Analysis bovine tuberculosis |
| MiG MLV N P PI Pl ₃ preg-ch Se sq. ft. SPA Si TB | magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus teck pregnancy-check selenium square feet tandardized Performance Analysis bovine tuberculosis total digestible nutrients |
| MiG MLV N P PI PI ₃ preg-ch Se sq. ft. SPA St TB TDN THI | magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus eck pregnancy-check selenium square feet tandardized Performance Analysis bovine tuberculosis total digestible nutrients temperature-humidity index |
| MiG MLV N P PI Pl ₃ preg-ch Se sq. ft. SPA Si TB | magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus teck pregnancy-check selenium square feet tandardized Performance Analysis bovine tuberculosis total digestible nutrients |

Midwest Region

by **Twig Marston**, University of Nebraska, tmarston2@unl.edu

August is when forages are maturing, weaning time is approaching and weather is dictating several key management decisions.

Breeding season

- 1. Look for unsound cows that need to be culled from the herd. Feet and legs, udder, eyes, disposition, and fleshing ability can be considered in some keep/cull programs.
- Identify cull prospects. Cull the cows that are "reproductively slow" from AI and/or natural service.
- **3.** Limit the breeding season. Remove bulls after 60-90 days with cows, 45-60 days with heifers. Length of natural service season can vary depending on whether estrous synchronization has been implemented.

These methods contribute to a more uniform calf crop, make winter feed management easier and increase the success rate of next year's breeding season.

Herd health

- **1.** If pinkeye is likely to be a problem, consider the following preventive and therapeutic measures:
 - ► Make sure the herd is receiving adequate vitamins and trace minerals in its diet.
 - ➤ Consider using a medicated tracemineral package.
 - ➤ Consult your veterinarian about developing a preventive health program that includes pinkeye control.
 - ► Clip pastures with tall, coarse grasses that may irritate eyes.
 - ► Provide ample shade.
 - Administer an IM injection of longacting oxytetracycline when symptoms are first noticed.
 - ► Shut out irritating sunlight by patching eyes, providing shade, etc.
 - ► Control flies.
 - ► Always consult your veterinarian on the best treatments available.
- **2.** Develop a vaccination/health program for show cattle.
- **3.** Vaccinate suckling calves for IBR, BVD, PI₃, BRSV and possibly pasteurella at least three weeks prior to weaning.
- 4. Revaccinate all calves for blackleg.

- **5.** Vaccinate replacement heifers for brucellosis at 4-10 months of age.
- **6.** Monitor and treat foot rot.

Forage/pasture management

- **1.** Enhance grazing distribution with mineral feeder/supplement placement.
- **2.** Observe pasture weed problems to aid in planning control methods needed next spring.
- **3.** Monitor grazing conditions and rotate pastures if possible and practical.
- 4. If pastures will run out in late summer, get ready to provide emergency feeds. Start supplemental feeding before pastures are gone to extend grazing. Rotational grazing can be an effective forage management system and increase harvest efficiency of grazed lands.
- **5.** Harvest and store forages properly. Minimize waste while raking, baling and storing mechanically harvested feeds.
- **6.** Test harvested forages for nitrate content and nutrient composition.
- **7.** Plan a winter nutritional program through pasture and forage management.
- **8.** For stocker cattle and replacement heifers, supplement maturing grasses with an acceptable degradable intake protein (DIP)/ionophore (feed additive)-type supplement.

General management

- **1.** Avoid unnecessary heat stress don't handle or truck cattle during the heat of the day.
- **2.** Repair, replace and improve facilities needed for fall and winter activities.
- **3.** Order supplies, vaccines, tags and other products needed at weaning time.
- **4.** Consider weaning earlier than normal if:
 - drought conditions develop and persist;
 - ► range conditions limit milk production;
 - ► cows lose body condition; or
 - ► facilities and management are available to handle lightweight calves. First-calf heifers have the most to gain from early weaning.
- **5.** Resist the temptation to feed cows without weaning; feeding early-weaned calves is more efficient than feeding lactating cows.
- **6.** Prepare to have your calf crop weighed and analyzed through your state, regional or breed performance-testing program.
- 7. Consider your marketing options.
 AngusSource® is an excellent program developed for Angus genetics.
 AngusSource is a USDA process-verified program (PVP) for Angus-sired calves that documents source and group age.

Southeastern Region

by **Lawton Stewart**, University of Georgia, lawtons@uqa.edu

Is a controlled breeding season worth it? Part 1: Improving reproductive efficiency

As I write this, I realize that many reading this will utilize a controlled breeding season to utilize management tools such as AI. However, there are some that may not, or some of you may have bull buyers or clients who may not. So my idea is to help those considering utilizing a controlled breeding season, or those helping others.

As I speak at county meetings throughout the state, a common question I ask is: "How long is your breeding/calving season?" The answer generally ranges from 60 days to 365 days (a.k.a., continuous calving season or 'I run the bull with the cows year-round'). My next question is: "What are the benefits of a continuous breeding season?" The best answer is cash flow. This allows a producer a fairly constant, regular source of income when calves are sold at the stockyard each month.

This is a valid reason, but if we start discussing the reasons for converting to a controlled breeding season, the benefits start to outweigh those of the continuous system quickly. In fact, there are enough benefits that we will discuss these in a three-part series that will include:

- 1. Improving reproductive efficiency;
- 2. Developing a nutrition plan; and
- 3. Management and marketing strategies.

Remember, this is a nutritionist writing this; but, even so, I know it takes a calf on the ground every 365 days to maintain economic livelihood in the cattle business. From a reproductive efficiency standpoint, we can consider three major advantages:

Reproductive management. Under a controlled breeding season, all cows are managed similarly within a given window of time. Therefore, it is much easier to employ breeding strategies such as estrous synchronization and artificial insemination. Additionally, this forces a closer observation of the cow herd. This will help identify potential reproductive problems in cows such as infectious disease, but also in bulls such as low libido and lameness/injury.

Reproductive efficiency and recordkeeping. If the calving season is confined to a given amount of time, it is easier to perform recordkeeping on cow and calf performance. Many producers use the 'Little Red Book' from the National Cattlemen's Beef Association (NCBA) to keep records on their herd. The book is much easier to keep up with for 90 days on the dash of the truck compared to 365 days. Also, a

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Western Region

by Randy Perry, California State University, Fresno, randyp@csufresno.edu

Fall-calving herds

The main focus is to prepare for the calving season.

Genetic management

Sire selection. The start of the breeding period is still months away; however, now is the time to start developing a list of potential AI sires. For most successful purebred producers, sire evaluation is a continual process that never ends. In my opinion, it is the most important management decision that is made each year in a purebred or seedstock operation of any species.

Reproductive management

Vaccinations. If any precalving vaccinations, such as a scour vaccine, are going to be administered, they should be given far enough in advance of the calving season to avoid handling cows that are extremely close to parturition.

Calving supplies and equipment. Be sure that equipment is in working order and supplies are on hand to assist females once calving starts. In addition, if injections such as selenium are going to be administered at birth, be sure that an adequate supply of those products is on hand.

Nutritional management

Mineral supplementation. Be sure cows are receiving adequate levels of calcium, phosphorus and trace minerals that are deficient in your area. Minerals should be supplemented on a year-round basis and can be varied depending on the time of year and available forage resources. Mineral boluses or injectable products can be used in addition to loose or block mineral products.

Body condition. The target level of body condition at calving is a minimum BCS of 5.0 for mature cows and 6.0 for 2-year-old heifers on a scale of 1 to 9 (see *www.cowbcs.info*).

Protein and energy supplementation. Both protein and energy requirements need to be met in order to achieve the desired level of body condition as described previously. If cows are grazing dry native forage, typically protein is more limiting as compared to energy.

Be sure that you are pricing supplements on a cost per unit of protein or energy, depending on which nutrient is most limiting in your situation. In situations where forage quality is limited but there is plenty of forage or pasture available, protein will be the more limiting nutrient. In situations where forage quantity is lacking, such as drought or short feed conditions, then energy typically will be the more limiting nutrient.

Heifer development. The developmental period from weaning until breeding time is critical in terms of influencing the future productivity of females. Females should be developed to reach approximately 65% of their projected mature weight at the start of the breeding period and 85% of their projected mature weight at calving.

Health management

Treatment protocol. Have treatment protocols and products on hand for both scours and pneumonia in suckling calves. It is well-advised to have first and second treatment options for both conditions.

Spring-calving herds

The main focus is that cows and calves are on cruise control.

Reproductive management

Natural-service bulls. Bulls should be turned out and hopefully are doing their job. Watch for return heats from natural-service dates, and if a high percentage of females are coming back into heat, switch sires if that is an option.

Nutritional management

Mineral supplementation. It is important that minerals are supplemented on a yearround basis. Supplements should be formulated to meet deficiencies specific to your region or area.

Protein and energy supplementation. Most spring-calving cows in the West graze irrigated pastures. Typically cows grazing irrigated pastures are receiving adequate levels of both protein and energy and, therefore, supplementation is not needed.

Health management

Pinkeye prevention. Midsummer is the time of year when problems with pinkeye can become quite prevalent and, thus, treatments can become time-consuming. The incidence of pinkeye can be reduced by clipping tall, mature grasses; controlling flies with dust bags, pour-ons and/or fly tags; and treating problems quickly and aggressively. Recommendations for treatment were included in last month's column.

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producer is more likely to keep up with the details necessary to monitor and improve reproductive efficiency if the calving season is condensed. This makes it much easier to calculate data such as conception rate, pregnancy rate, live calving rate, weaning rate and calving interval. All of these numbers will assist in improving the efficiency of the herd.

Genetic advancement. If a controlled breeding season is utilized properly, all cows are pregnancy-checked following the breeding season, and all open cows are culled. Indirectly, a producer is selecting for the genetics that work best for their given production environment. Also, under a controlled breeding system, producers have an extended period of time when the bull is not being utilized for breeding. This allows time to evaluate the quality of their bull and possibly purchase a new bull annually or biannually. Additionally, a producer is more likely to utilize AI in a controlled breeding program. Both AI and rotating bulls allows producers the chance to introduce new and improved genetics routinely, and, in turn, improve the genetics of the herd.

Ultimately, converting to a controlled breeding season is a concept that is a lot easier to discuss than it is to employ. Realistically, you're looking at a process that can take up to five years. However, if you focus on the final goal and the rewards, it is definitely a management practice worth investigating. For more information about a controlled breeding season, please contact your local Extension office.

Southern Great Plains

by **David Lalman**, Oklahoma State University, david.lalman@okstate.edu

Spring-calving herds

- **1.** Be prepared to wean calves early again this year as conditions develop.
- **2.** A self-limited, high-protein creep-feeding program (such as the Oklahoma Silver program) enhances weight gain without causing calves to become excessively fleshy, because intake is limited to around 1 lb. of supplement per head per day. After about 30 days of creep consumption, a salt

- concentration of around 10% may be required to achieve this low level of intake. This program will only work with adequate forage availability.
- **3.** Secure the appropriate products and supplies for the fall herd health program.
- **4.** If the cow herd can be gathered once before weaning, an effective strategy is to vaccinate calves two to six weeks prior to weaning and again at weaning. In fact, many value-added health programs recommend this protocol to maximize immune response in weaned calves.

Fall-calving herds

- 1. Yearling replacement heifers grazing native pastures may benefit from a small package (around 1 lb. per day) of high-protein supplement in order to ensure adequate growth and development prior to breeding in November.
- Calves that were first vaccinated at weaning require booster vaccinations within two to four weeks.
- 3. Calving season begins in mid- to late August for most fall-calving herds. Purchase calving supplies and prepare ID tags. The incidence of dystocia due to heavy birth weight is lower in fall-calving systems. However, producers should still be prepared to deal with occasional dystocia cases associated with abnormal presentations.

General recommendations

- 1. At the time of this writing, pasture conditions are marginal across much of the Southern Great Plains due to severe drought last year and marginal to severe drought in some areas this year.

 Regretfully, I will recycle my list of strategies to deal with these conditions.

 These are listed in order of priority:
 - **a.** Cull and sell at least some cattle before pastures are overgrazed;
 - **b.** Early-wean calves and move them to another location or feed a concentratebased ration in a small pasture or drylot.
 - Relocate cattle to another part of the country if you can lease grass elsewhere at a reasonable price; and
 - **d.** "Feed" your way out of the drought with purchased hay or concentrate-based rations. This option is rarely cost-

- effective for commercial producers, but may be necessary in a purebred operation if all other alternatives are exhausted. Angus breeders may only be able to cull into their genetic base so far. We have worked with several producers to develop limit-fed drylot feeding programs for dry and lactating cows, as well as growing calves. This strategy uses concentrate feeds in a controlled, limited amount to replace forage or roughage. It requires more labor, management skill, feed storage and delivery equipment, and it will be expensive. More information on limitfeeding concentrate diets to cows is available at www.beefextension.com.
- 2. A unique feature in most pastures this year is an abundance of mature/senescent coolseason annual grasses. These will serve to dilute warm-season grasses, effectively lowering forage quality. Consequently, producers should be prepared to begin supplementing protein earlier than normal this year. The importance of keeping fresh, high-quality mineral out to cattle is amplified when forage quality is low for long periods of time.
- 3. As I have suggested for the last three years, being in the hay market, whether buying or selling, without the powerful information provided by a forage test is rather foolish! Information is power, and that applies to the hay crop. Expensive purchased feed costs result in more dramatic differences in value of low- vs. high-quality hay.
- **4.** Continue a fly and tick control program for all cattle. The incidence of pinkeye is particularly high during late summer. Fly control is one key management factor in minimizing the spread of this disease.
- **5.** Consider managing a portion of Bermuda grass and fescue pasture for late-summer fertilization and fall grazing. More information is available at www.beefextension.com.
- **6.** Early to mid-August is about the latest a person can spray sericea lespedeza and expect to achieve reasonable reductions in the plant population the following year.

