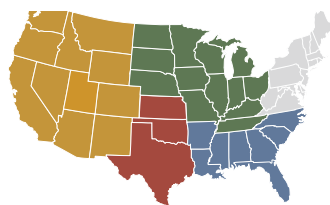


ANGUS ADVISOR

Our team of Angus advisors offer regional tips for herd management.



Southern Great Plains

by David Lalman

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Spring-calving herds

- Over the past two years, producers throughout the southern Great Plains have reported improved timed artificial insemination (AI) pregnancy rates in beef cows using the new 7 & 7 synch protocol. This protocol was developed and tested by University of Missouri scientists. Compared to the long-standing 5- and 7-day co-synch systems for timed AI, the new protocol requires one additional trip through the chute (four total). Details for the 7 & 7 synch protocol are available at <https://extension.missouri.edu/publications/g2023>. Other established estrous synchronization protocols for beef heifers and beef cows can be found at <https://beefrepro.org/arsbc/>.
- Consult your veterinarian about timing and product selection related to vaccination of cows prior to implementing an AI program.
- If cattle must be moved after breeding, they should be

transported within four days if possible. In the southern Great Plains region, heat stress is possible mid- to late-spring, especially during times of high humidity. Therefore, care must be taken to avoid compounding transportation stress with heat stress. In situations where animals will not be in transit for more than an hour, transportation during early daylight hours is advisable. Longer trips may require predawn or nighttime transportation.

- Fewer females show signs of estrus during heat stress. For this reason, AI programs in the southern Great Plains region planned for mid- to late-spring may benefit from using a timed AI protocol rather than estrous detection.
- Substantial evidence suggests radical changes in diet and activity the time of AI can reduce conception rates. In general, a consistent, slightly positive plane of nutrition combined with minimal change in activity during the AI and post-AI period facilitates AI success.
- Similarly, it is advisable to adapt breeding bulls to pasture conditions prior to turnout with

cows. Don't forget to schedule breeding soundness exams (sometimes referred to as BSE) with your veterinarian.

Fall-calving herds

- Individually weigh and record hip height and body condition score (BCS) for your cows, and send that data to the American Angus Association. This can be accomplished within 45 days of weaning if it isn't convenient on weaning day. Some sires have the capability of producing progeny that excel at postweaning performance and carcass quality, as well as daughters with moderate mature size. You can advance our ability to find these sires by submitting your cow weights and scores.
- Determine your preferred timing for weaning, and inventory veterinary and feed/supplement supplies for the weaning program.
- A coccidiostat is an important consideration when calves will be concentrated in small pastures or drylots during the weaning period, especially on properties that have a history of coccidiosis.

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General recommendations

- Lush spring forage is generally concentrated in nutrients, including minerals, vitamins and vitamin precursors. Even so, spring grasses in the southern Great Plains are deficient in sodium. This leads to a healthy appetite for sources of salt during the spring and early-summer months. Salt and mineral intake usually declines substantially by midsummer, so be sure to keep out your salt/mineral supplement this spring so they have adequate tissue stores by the time their intake declines.
- Along with sodium, forage phosphorus, copper and zinc are frequently marginal or deficient in the southern Great Plains region, and this shortfall intensifies as the grazing season progresses.
- Obviously, forage mineral concentration can vary widely from pasture to pasture and ranch to ranch. Just recognize it isn't difficult or expensive today to conduct a forage mineral survey your pastures. Quite a few commercial vendors, veterinarians and extension specialists are willing to assist you with this effort. From there, you can develop a logical and cost-effective mineral supplementation program.

Western Region

by Randy C. Perry
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Fall-calving herds

Main Focus: cows and calves are on cruise control

1. Start planning for preweaning vaccinations.
2. Continue your mineral supplementation program. Consider injectable mineral products in addition to loose, block and tub mineral products.
3. Fall-calving cows and calves should have very few problems with animal health at this time of the year.
4. Spring is an excellent time of the year to work on general repairs such as repairing and building fences and other facilities. Also, if irrigated pastures are part of your pasture resources during the summer months, make repairs to irrigation systems before they are needed later in the spring.

Spring-calving herds

Main focus: prepare for the breeding season

1. Decide on AI sires, and get semen ordered early to avoid last-minute problems with semen delivery. The most important decision each year in a purebred operation is sire selection.
2. Consider all information and try to find the bulls that combine expected progeny differences (EPDs), genomics, phenotypic traits and “old fashioned” convenience traits like longevity, udder structure, disposition, mothering ability, and feet and leg soundness.
3. Decide on a synchronization protocol if you are going to use estrous synchronization. Many systems are available, and many of the timed-AI protocols offer satisfactory results.
4. Heat detection is the key to a good AI program unless you are

- using a timed-AI system.
5. Don't overlook the importance of good and precise semen handling.
6. Get bulls semen and trichomoniasis tested far in advance of the breeding season. Therefore, if problems arise, replacement bulls can be located.
7. Focus on becoming a better grazing manager — it can have a huge effect on your bottom line.
8. Mineral supplementation is extremely important at this time of the year. I have discussed this in detail in previous columns.
9. Try to maintain the optimum level of body condition through the calving and breeding season.
10. Normally by late spring, forage resources are at their peak from both an energy and protein standpoint. Therefore, usually supplemental feeding is not needed at this time of the year.
11. Make certain females and service sires are vaccinated at least 30 days prior to the start of the breeding season.
12. Treatment protocols and products should be on hand for both scours and pneumonia in suckling calves.
13. Late spring is a good time to spray fencelines, and get irrigation ditches or lines in good repair if irrigated pasture or hay fields are parts of your operation.

Southeast Region

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Imagine a business that didn't track its inputs or its outputs. Obviously, that would be a bad scenario. The

demand for information is rapidly increasing when it comes to all sectors of the beef chain, from commercial cow-calf to retail.

The digital age we currently live in combined with genomic testing has streamlined selection and marketing to a speed that even now seems almost fictional. Inputs and outputs are the future of the industry and for all progressive cattle producers.

Retailers of all sizes are delving into marketing that connects consumers to the farm. As you may expect, large retailers can already scan a bag of lettuce and tell what farm it came from. If the thought of that makes you nervous, I don't blame you. However, the pros will outweigh the cons for most. Some leaders in the retail segment are looking ahead to a time when consumers can scan a QR code on a package of ribeye steaks to learn about the ranch or farm that it originated from.

At least as of this writing, people will pay for that kind of story. Restaurants are increasingly promoting premium known-source menu items.

If scenarios like this seem too far-fetched, that is understandable. Still, regardless of how far we take our marketing, the information we provide to the next person in the beef chain can make a big difference.

Producers who market feeders with electronic identification (eID) traceability will be better prepared to hit the bigger premiums. Many programs such as AngusLinkSM are obviously using radio frequency identification (RFID) technology to track calf origin more efficiently. This transfer of data is now the standard for global beef trade.

Genetic testing and parentage information are standards in the

"Genetic testing and parentage information are standards in the purebred seedstock industry. Commercial operations are rapidly evolving in that direction as well." — Jason Duggin



purebred seedstock industry. Commercial operations are rapidly evolving in that direction as well.

Retaining commercial replacements with genomic information will hopefully improve heifer retention and longevity by using heifer pregnancy and stayability markers, for example. Zoetis and Neogen both offer products that can provide genomic information on 18 or 16 traits, respectively. These tests rank groups of cattle for each trait as well as provide selection index options geared either toward maternal, production or carcass goals.

There are many potential advantages for these tests as producers select heifer replacements. Traits that are lowly heritable, such as fertility or hard-to-measure traits like tenderness can now be observed in the genomic scores of weaned calves. Another advantage of these selection tools is the opportunity to evaluate future cow cost on a group of potential replacements. Traits such as dry matter intake, residual feed intake and yearling

performance are some of the traits used to predict differences in mature cow cost, which will be met with higher scrutiny with increased feed prices. Genomic and RFID data are examples of tools that can be used for improved herd management and marketing that help measure inputs and outputs on the farm.

Midwest Region

by Eric Bailey

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"Data that delivers" does not have to mean investment in a dazzling new technology. We keep records that could help make more informed decisions on your farms and ranches. How many of y'all have heard, "It takes five calves for a replacement heifer to pay for herself?"

That has been a common refrain in the press for a while. I am going to give you two pieces of evidence that this phrase is obsolete, if you're willing to collect data and keep an open mind.

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A research paper by Cushman et al. (2013) gave us key evidence for replacement heifer management. In their paper, heifers that calved in the first 22 days of the calving season were twice as likely to remain in the herd by their fourth calving season as heifers that calved after Day 22. Replacement heifers that calve early in the calving season stay in the herd longer. This is a strong reason to adopt artificial insemination (AI) in replacement heifer development.

I will take it a step further than others. Based on this evidence, I think you should develop enough heifers to fill your cow herd replacement needs with AI-bred heifers. Most herds have a 15% replacement rate and will keep just enough replacement heifer prospects around to meet this need. That will involve a phenotypic-driven decision on replacement selection, which generally comes down to a “biggest and prettiest” contest.

Here’s how I would select replacement heifers, knowing that early-calving ones stay in the herd longer. Let’s say you have 100 cows, produce 42-43 heifer calves per year and need 15 replacement heifers to replenish the cow herd. I would keep 30 heifers, develop them to a lesser target weight (55% of mature body weight instead of 65%) and breed all heifers to one round of timed AI.

If we have a 50% AI conception rate, then you will have 15 AI-bred heifers and 15 open heifers. There are a multitude of avenues for marketing the non-AI bred heifers. Perhaps you expose them to a bull and market as replacement

prospects for someone else. That works well if you live in a state where bred heifers’ purchase and sale is common. Perhaps you could feed out the open heifers and sell to packers or open a new business marketing freezer beef. Some folks will be reluctant to enter the fed-cattle market because the open heifers are usually marketed at a discount at the sale barn. I think an open replacement female is an undervalued asset, because they will require less resources to finish than putting a weaned heifer calf on feed.

A natural objection to the previous paragraph is, “I will lose lots of money developing heifers if half of them are open at the end of the breeding season.” Cushman et al. (2013) also reported on the weaning weights of calves born to replacement heifers. The weaning weight of calves born to heifers who calved in the first three weeks of calving were 45 pounds (lb.) heavier than calves born after the third week of the calving season.

More importantly, each year for the next five years, the same early-calving heifers weaned a calf that was at least 20 lb. heavier than the later calving heifers. Over a six-year period, there is 150 lb. more weaning weight from earlier calving heifers than later calving heifers.

The data was generated from the Meat Animal Research Center in Clay Center, Neb., from 1980 to 2000. The data was generated from 16,549 replacement heifers retained on the center.

Now that’s data that delivers. **AJ**



Extended-Release Injectable Parasiticide
5% Sterile Solution

For the Treatment and Control of Internal and External Parasites of Cattle on Pasture with Persistent Effectiveness

Not for use in female dairy cattle 20 months of age or older, including dry dairy cows. Not for use in calves to be processed for veal.

Not for use in breeding bulls, or in calves less than 3 months of age.

Not for use in cattle managed in feedlots or under intensive rotational grazing.

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

INDICATIONS FOR USE

LONGRANGE, when administered at the recommended dose volume of 1 mL per 110 lb (50 kg) body weight, is effective in the treatment and control of the following internal and external parasites of cattle:

Gastrointestinal Roundworms	Lungworms
<i>Bunostomum phlebotomum</i> – Adults and L ₄	
<i>Cooperia oncophora</i> – Adults and L ₄	<i>Dictyoaulax viviparus</i> – Adults
<i>Cooperia punctata</i> – Adults and L ₄	
<i>Cooperia surabada</i> – Adults and L ₄	Grubs
<i>Haemonchus placei</i> – Adults	<i>Hypoderma bovis</i>
<i>Oesophagostomum radiatum</i> – Adults	
<i>Ostertagia lyrata</i> – Adults	Mites
<i>Ostertagia ostertagi</i> – Adults, L ₄ and inhibited L ₄	
<i>Trichostrongylus axei</i> – Adults and L ₄	<i>Sarcoptes scabiei</i> var. <i>bovis</i>
<i>Trichostrongylus colubriformis</i> – Adults	

Parasites	Durations of Persistent Effectiveness
Gastrointestinal Roundworms	
<i>Bunostomum phlebotomum</i>	150 days
<i>Cooperia oncophora</i>	100 days
<i>Cooperia punctata</i>	100 days
<i>Haemonchus placei</i>	120 days
<i>Oesophagostomum radiatum</i>	120 days
<i>Ostertagia lyrata</i>	120 days
<i>Ostertagia ostertagi</i>	120 days
<i>Trichostrongylus axei</i>	100 days
Lungworms	
<i>Dictyoaulax viviparus</i>	150 days

DOSEAGE AND ADMINISTRATION

LONGRANGE® (epinomectin) should be given only by subcutaneous injection in front of the shoulder at the recommended dosage level of 1 mg epinomectin per kg body weight (1 mL per 110 lb body weight). Each mL of LONGRANGE contains 50 mg of epinomectin, sufficient to treat 110 lb (50 kg) body weight. Divide doses greater than 10 mL between two injection sites to reduce occasional discomfort or site reaction.

Do not underdose. Ensure each animal receives a complete dose based on a current body weight. Underdosing may result in ineffective treatment, and encourage the development of parasite resistance.

LONGRANGE is to be given subcutaneously only. Animals should be appropriately restrained to achieve the proper route of administration. Inject under the loose skin in front of the shoulder (see illustration) using a 16 or 18 gauge, ½ to ¾ inch needle.

Sanitize the injection site by applying a suitable disinfectant. Clean, properly disinfected needles should be used to reduce the potential for injection site infections.

Body Weight (lb)	Dose Volume (mL)
110	1
220	2
330	3
440	4
550	5
660	6
770	7
880	8
990	9
1100	10



Withdrawal Periods and Residue Warnings

Animals intended for human consumption must not be slaughtered within 48 days of the last treatment. This drug product is not approved for use in female dairy cattle 20 months of age or older, including dry dairy cows. Use in these cattle may cause drug residues in milk and/or in calves born to these cows. A withdrawal period has not been established for pre-ruminating calves. Do not use in calves to be processed for veal.

Animal Safety Warnings and Precautions

The product is likely to cause tissue damage at the site of injection, including possible granulomas and necrosis. These reactions have disappeared without treatment. Local tissue reaction may result in trim loss of edible tissue at slaughter.

Observe cattle for injection site reactions. If injection site reactions are suspected, consult your veterinarian. This product is not for intravenous or intramuscular use. Protect product from light. LONGRANGE® (epinomectin) has been developed specifically for use in cattle only. This product should not be used in other animal species.

When to Treat Cattle with Grubs

LONGRANGE effectively controls all stages of cattle grubs. However, proper timing of treatment is important. For the most effective results, cattle should be treated as soon as possible after the end of the heel fly (warble fly) season.

Environmental Hazards

Not for use in cattle managed in feedlots or under intensive rotational grazing because the environmental impact has not been evaluated for these scenarios.

Other Warnings: Parasite resistance may develop to any dewormer, and has been reported for most classes of dewormers.

Treatment with a dewormer used in conjunction with parasite management practices appropriate to the geographic area and the animal(s) to be treated may slow the development of parasite resistance.

Fecal examinations or other diagnostic tests and parasite management history should be used to determine if the product is appropriate for the herd/flock, prior to the use of any dewormer. Following the use of any dewormer, effectiveness of treatment should be monitored (for example, with the use of a fecal egg count reduction test or another appropriate method).

A decrease in a drug's effectiveness over time as calculated by fecal egg count reduction tests may indicate the development of resistance to the dewormer administered. Your parasite management plan should be adjusted accordingly based on regular monitoring.

Macrocytic lactones provide prolonged drug exposure that may increase selection pressure for resistant parasites. This effect may be more pronounced in extended-release formulations.

TARGET ANIMAL SAFETY

Clinical studies have demonstrated the wide margin of safety of LONGRANGE® (epinomectin). Overdosing at 3 to 5 times the recommended dose resulted in a statistically significant reduction in average weight gain when compared to the group treated at label dose. Treatment-related lesions observed in most cattle administered the product included swelling, hyperemia, or necrosis in the subcutaneous tissue of the skin. The administration of LONGRANGE at 3 times the recommended therapeutic dose had no adverse reproductive effects on beef cows at all stages of breeding or pregnancy or on their calves.

Not for use in bulls, as reproductive safety testing has not been conducted in males intended for breeding or actively breeding. Not for use in calves less than 3 months of age because safety testing has not been conducted in calves less than 3 months of age.

STORAGE

Store at 77° F (25° C) with excursions between 59° and 86° F (15° and 30° C). Protect from light.

Approved by FDA under NADA # 141-327

Made in Canada.

Manufactured for Boehringer Ingelheim Animal Health USA Inc., Duluth, GA 30096

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