## Guide to abbreviations and acronyms

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

| \$Values | dollar value indexes |
| :--- | ---: |
| ADG | average daily gain |
| AI | artificial insemination |
| AIMS | Angus Information |
| BCS | Management Software |
| body condition score |  |
| BLV | bovine leukemia virus |
| BMP | best management practices |
| BQA | beef quality assurance |
| BRD | bovine respiratory disease |
| BRSV | bovine respiratory synctial virus |
| brucellosis | Bang's disease |
| BSE bovine spongiform encephalopathy |  |
| BVD | bovine viral diarrhea |
| Ca | calcium |
| CHAPS | Cow Herd Analysis and |
| CP | 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 |
| Ib. | pound |
| LCT |  |

## LCT lower critical temperature

| lepto | leptospirosis |
| :--- | ---: |
| Mg | magnesium |

MiG management-intensive grazing
MLV modified-live virus
N nitrogen
P phosphorus
PI persistent infection
$\mathrm{Pl}_{3} \quad$ parainfluenza-3 virus
preg-check pregnancy-check
Se selenium
sq. ft. square feet
SPA Standardized Performance Analysis
TB bovine tuberculosis
TDN total digestible nutrients
THI temperature-humidity index
trich trichomoniasis
Zn
zinc

## Southern Great Plains

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

## Spring-calving herds

1. By the middle of April, Angus breeders in the Southern Great Plains will know if drought conditions linger or if subsoil moisture and livestock watering sources have been replenished. Range scientists are recommending a $50 \%$ or greater reduction in stocking rates for native rangelands depending on severity of drought during the last two years and the likelihood of continued plant stress from lack of moisture this spring. For introduced forages, pasture recovery may be accomplished with a less-drastic reduction in stocking rate.
2. Assuming severe conditions do linger in some areas, another beef cow liquidation may be necessary this spring. One management technique that could provide some flexibility and stabilization of income is early weaning. While this technique is not ideal for seedstock operations, it could be more beneficial than selling bred cows or cow-calf pairs this spring in a soft market.

In general, calves are weaned from the cows when they reach an average of about 45-60 days of age. The calves are immediately placed in a drylot and fed a high-concentrate diet for 60 days. After this initial growing period, the calves can be turned out on pasture and fed 1 or 2 lb . of a high-protein supplement until weaning in September or October.

Our experience has been that calves stay surprisingly healthy and gain $2-2.5 \mathrm{lb}$. per day throughout the weaning period and late summer. During the weaning period, current ration prices project a feed-only cost of gain of less than about $60 ¢$ per lb . Considering that gain is worth about $\$ 1.20$ per lb., it isn't a bad deal. Cows can be sold immediately to reduce stocking rate or turned out on grass. A dry cow consumes approximately $20 \%$ less forage than a lactating cow, and a sold cow consumes $100 \%$ less forage.
3. Plan to implement estroussynchronization systems for heifers and cows. Some systems require initial management steps as early as 31 days in advance of the targeted initial breeding date. If not already done, purchase AI supplies, acquire semen, and check facilities and equipment. Don't forget to find and test the thawing bath
before the first cow walks into the chute for breeding.
4. If not previously done this year, consult your veterinarian about vaccinating cows a minimum of 30 days prior to breeding.
5. Conduct breeding soundness exams for all herd sires if not completed in March.

## Fall-calving herds

Consult your veterinarian to plan the vaccination program for fall-born calves and to purchase the necessary supplies. An ideal situation is to vaccinate two to six weeks prior to weaning and again at weaning. If not done in March, implant steer calves and heifers not intended to be kept as replacements.

## General recommendations

1. Introduced warm-season forages, such as Bermuda grass and Old World bluestem, should be fertilized in late April through midMay. Approximately 50 lb . of nitrogen $(\mathrm{N})$ is required to produce about 1 ton of forage. Efficiency of nitrogen use is improved with multiple applications (generally two or three).
2. High-magnesium mineral supplements should be provided for cattle grazing coolseason forages through the month of April.
3. A moderate- to low-phosphorus (P) mineral supplement ( $10 \%$ phosphorus or less) is recommended for most classes of cattle and forage types during the lush spring growing season.
4. Plan a fly- and tick-control program. Check spraying equipment, dust bags and oilers, and purchase needed chemicals or tags for fly and tick control. New-generation ear tags are highly effective. Check with your veterinarian for tags that are working well in your area.
5. Establish new stands of lovegrass in April and May. Spray weeds in Bermuda grass pastures in late April or May. Be sure to read the herbicide label for the most effective rate and timing of application.

## Midwest Region

by Justin Sexten, University of Missouri, sextenj@missouri.edu

## Spring pasture management

Early spring pasture management affects pastures for the entire growing season. Managing pastures following drought is increasingly difficult due to weakened and thinning stands and increased weed pressure. This month we will consider some aspects of pasture management to consider when developing a recovery plan.

The first pasture management decision to make this season is whether or not to preserve the current stand. Some pasture areas served as late-summer sacrifice pastures or were interseeded with annuals, and as a result, the stand is thin and needs renovation.

If renovation is planned, continue feeding winter hay supplies in these areas and house cattle in these pastures while other pastures accumulate adequate growth prior to turnout; more on this later.

Using renovation areas as winter feeding areas allows increased nutrient deposits via hay-feeding waste and manure. Remember, each ton of hay has approximately 39 lb . of nitrogen, 19 lb . of phosphate and 53 lb . of potash. The key to capturing nutrient credits is even distribution; hay unrolling proves beneficial to hay feeders for uniform nutrient distribution.

To effectively renovate endophyte-infected tall-fescue pastures, a smother crop such as sorghum-Sudan grass, pearl millet, soybeans or corn should be planted in the spring after a glyphosate application. These smoother crops serve two purposes: to kill infected tall fescue and suppress weeds germinating in open pasture areas. Most smother crops can be harvested as hay or silage to allow expanded grazing on permanent pastures traditionally used for hay.

After haying or grazing, plan to seed a novel-infected tall fescue back onto these acres in late August or early September, depending on your location. Smother crops will need to be harvested and then sprayed with glyphosate prior to seeding. Consider pasture planting dates when selecting a smother crop. The first harvest of renovated pastures the following year will ideally be as hay to allow the stand to establish.

If complete renovation is not planned, the next step is to estimate if weed control is needed. Weeds compete with grasses for sunlight and water resources, so minimizing competition will increase water resources during drought stress. Pastures with previous weed-infestation problems will likely persist due to drought. Plan now to implement weed-control measures early while weeds are easily killed and competition is minimized. Legumes will be killed by weed control, so consider legume and weed prevalence before implementing weed-control efforts.

If renovation or weed control is not planned, now is the time to implement legume interseeding. Legumes require greater soil pH (6.2) to establish and persist. If soil fertility permits, consider establishing legumes to increase forage quality, dilute fescue toxicosis or improve yearly forage distribution. Spring-seeding legumes will help fill in open areas and assist with weed suppression.

Patience will be the most beneficial springgrazing management tool. With droughtstressed pastures, producers should delay turnout until adequate leaf area is present to allow active photosynthesis. Producers turning cattle onto pastures at the first hint of

## ■ANGUS ADVISOR

CONTINUED FROM PAGE 117
green will challenge an already weak plant to regrow new leaves from minimal root reserves. Early forage is mostly water (20\% $\mathrm{DM})$. Cows needing to consume 30 lb . of dry matter must consume 150 lb . of this "washy" forage to get adequate nutrients. Delaying grazing until plants accumulate $2,000 \mathrm{lb}$. of dry matter per acre, or 4-5 in. of growth during the spring prevents cows from losing weight due to low DM intake while allowing the plant to accumulate root carbohydrates to regrow leaves after grazing.

Once the grazing season starts, producers should manage the grazing system to turn in at $3,500 \mathrm{lb}$. per acre, 8-10 in., and take out at $1,500 \mathrm{lb}$. per acre, 3-4 in. Ideally, the residual or take-out height is as uniform as possible from the first pass through the pasture. Once a plant is ungrazed, the cattle will preferentially graze surrounding plants each successive grazing because of maturity. Mature plants are generally mowed midsummer to reset the pasture to a uniform "maturity level." The best way to visualize the variability in grazed pastures is by comparing regrowth from grazed pastures to hay fields.

## Western Region

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

## Spring-calving herds

The main focus is to prepare for the breeding season.

## Genetic management

Sire selection. Sire selection is one of the most important management decisions
made each year in a purebred cattle operation. The challenging and difficult aspect concerning sire selection is predicting industry cycles and trends. What kind of cattle are going to be the most sought after in three to five years? Those who are able to forecast or predict these trends will always be in the driver's seat from a genetic standpoint.

In addition, I think it is most important that we use sires that are going to produce daughter progeny that we can build a herd around. Many times we use sires because we believe they will produce bull progeny that we can market from a phenotypic and genetic standpoint. That is fine; however, it is hard to justify the time and expense associated with AI if the daughter progeny are not the kind of females that will improve our cow herd.

## Reproductive management

Semen. Get semen ordered early to avoid last-minute problems. Do not try to save money on semen - cheap semen is the most expensive item you can ever buy.

Synchronization protocol. If you are going to use estrous synchronization, now is the time to decide which protocol is going to work best in your production situation. Avoid programs that require excessive amounts of animal handling and trips through the chute prior to breeding. These programs are expensive from both a labor and product standpoint. In addition, animals are stressed each time that cows and calves are gathered and sorted for processing. (The newsroom at $w w w$.appliedreprostrategies.com provides a wealth of information on the various protocols.)

Heat detection. Heat detection is often

## Cive yourselfi a competitive edge

To stay competitive in a changing environment, you'll need more than an early start on chores. You'll need information to help you understand the changes so you can position yourself to take advantage of opportunities and avoid pitfalls.
www.4cattlemen.com is your web portal to coverage of the 2013 Cattle Industry Annual Convention and NCBA Trade Show February 6-9 in Tampa, Florida.


Featuring coverage of the industry's largest trade show and the meetings of five industry organizations, www.4cattlemen.com will provide you insight into issues facing the beef industry, current policy under debate, practical management techniques and the latest technology the industry has to offer.
www:4cattlemen.com
Hosting and coverage by the Angus Journal - Shauna Hermel, Editor 3201 Frederick Ave. • Saint Joseph, MO 64506 • 816-383-5270 • shermel@angusjournal.com
the most overlooked factor influencing the success of AI programs. Effective heat detection is achieved by developing the skills or ability to be able to pick up all the subtle signs of heat and being able to catch the females that never do exhibit standing estrus.

AI equipment. Have extra AI supplies on hand and thoroughly clean all breeding equipment (including the thaw thermos) prior to the time they are needed for the start of the breeding period.

Semen and trichomoniasis test. Semenand trich-test bulls far in advance of the breeding season. If problems arise, replacement bulls can be located prior to turnout.

## Nutritional management

Mineral supplementation. Be sure females are receiving adequate levels of calcium, phosphorus and trace minerals that are deficient in your area. Mineral boluses or injectable products can be used in addition to loose or block mineral products.

Protein and energy supplementation. Normally, by late spring forage resources are at their peak from both an energy and a protein standpoint. Therefore, supplemental feeding is not usually needed at this time of year.

## Health management

Vaccinations. Make certain females and service sires are vaccinated at least 30 days prior to the start of the breeding period. I recommend vaccinations that include fetal protection against PI-BVD.

## General management

Late spring is a good time to start spraying fencelines and to be certain that irrigation lines and ditches are in good repair prior to the start of the irrigation season if your operation includes irrigated pasture or hay fields.

## Fall-calving herds

Cows and calves are on cruise control. If fall-calving cows and calves are grazing native foothill rangeland, late spring is the time of the year that cattle require very little attention or management. Plans should be developed to administer preweaning vaccinations to bull and heifer calves two to three weeks prior to weaning.

## Mid-South Atlantic Region

by Scott Greiner, sgreiner@vt.edu; and Mark McCann, mark.mccann@vt.edu; extension beef specialists, Virginia Tech

April brings spring fever, winter feeding fatigue and anxiousness to go to grass. As with many management practices, patience pays dividends. Turning cattle out too quickly on spring pastures will only delay the
time when pasture can meet a cow's DM needs. Rotational grazing can also improve pasture productivity by ensuring a rest period for forage regrowth. As fertilization and plans are made for future forage harvest, it is an excellent time to total winter feed consumption and reflect on management changes for 2013, which could reduce days of winter feeding and supplement needs.

## Spring-calving herds (January-March)

## General

Calving season is winding down. Continue to observe late-calving cows frequently.

Tag, tattoo, record birth weight, calving-ease score, teat/udder score and mothering ability of the dam. Keep accurate records at birth to comply with age- and source-verification requirements.

Monitor young calves for scours. Keep calving area and paddocks with pairs clean and well-drained. Move pairs to new pastures or locations and reduce commingling of newborn calves with older calves to help reduce exposure and transfer of scours.

## Nutrition and forages

Continue to offer a high-magnesium mineral to prevent grass tetany. Monitor intake to ensure cows are consuming the recommended amount. No other source of salt or minerals should be available.

Evaluate growth of yearling heifers with the goal of reaching $60 \%-65 \%$ of mature weight by breeding. Depending on forage quality, supplementation may be needed to meet weight gain target.

Offer medium-quality hay as cows are turned out on pasture and use hay disappearance as a barometer of dry-matter needs of the herd.

New forage growth is very digestible, high in protein and high in moisture content.

## Herd health

Consult with your veterinarian concerning a prebreeding vaccination schedule for the cow herd, yearling heifers and bulls. Plan early to allow a 30 -day vaccination window prior to breeding season.

Monitor calf health closely, particularly for signs of scours and pneumonia. Have treatment supplies on hand.

Observe newborn calves to ensure colostrum intake in the first few hours of life. Provide selenium and vitamins A and D injections to newborn calves. Castrate commercial calves at birth.

## Reproduction

Finalize plans and protocols for breeding season. Establish a calendar to map the timing of the synchronization program to be used during breeding season. Have supplies and semen on hand.

Breed heifers 2-4 weeks ahead of mature cows to allow for a longer postpartum interval prior to the second breeding season.

Schedule and conduct breeding soundness exams (sometimes referred to as BSEs) on herd sires, including annual vaccinations.

Manage newly acquired herd sires properly to prepare them for the breeding season. Yearling bulls often lose 100 lb . or more during their first breeding season. Adjust them to the feed and environment of their new home, and commingle bulls of same age/weight for a period of time prior to turnout. Ample exercise, in combination with a proper nutritional program, is essential to make them physically fit for the breeding season.

## Genetics

Finalize genetic goals and selection criteria for the upcoming breeding season (both AI and natural-service sires).

Collect remaining yearling performance data (weight, height, scrotal, ultrasound) in seedstock herds.

## Fall-calving herds (September-November) <br> <br> General

 <br> <br> General}Schedule and conduct pregnancy
diagnosis with veterinarian 45-60 days
following breeding season.

Evaluate potential options for marketing of the calf crop, including timing of weaning to meet operational goals. Calculate breakevens on various marketing options and consider risk-management strategies.

Reimplant commercial calves.

## Nutrition and forages

Begin creep feeding or creep grazing of calves if desired.

Cows are entering the latter portion of lactation; above-average to good-quality hay should meet nutritional requirements.

Although pasture green-up is beginning, hay should continue to be offered until consumption declines significantly.

Reserve high-quality hay and a pasture area for calves postweaning.

## Herd health

Consult with a veterinarian on a vaccination protocol for the calf crop. Design your vaccination and weaning program around your marketing goals and objectives.

## Genetics

Collect weaning weights on calf crop at optimum time (AHIR ${ }^{\circledR}$ age range 120-280 days), along with cow weights, hip heights and body condition scores (cow mature size data taken within 45 days of calf weaning measure).

