Guide to abbreviations and acronyms

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

followi	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
brucell	osis Bang's disease
BSE b	ovine spongiform encephalopathy
BVD	bovine viral diarrhea
Ca	calcium
CHAPS	Cow Herd Analysis and
	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
IBR ID	infectious bovine rhinotracheitis identification
IBR ID IM	infectious bovine rhinotracheitis identification intramuscular
IBR ID IM in.	infectious bovine rhinotracheitis identification intramuscular inch
IBR ID IM in. lb.	infectious bovine rhinotracheitis identification intramuscular inch pound
IBR ID IM in. lb. LCT	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature
IBR ID IM in. lb. LCT lepto	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis
IBR ID IM in. lb. LCT lepto Mg	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium
IBR ID IM in. lb. LCT lepto Mg MiG	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing
IBR ID IM in. lb. LCT lepto Mg MiG MLV	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus
IBR ID IM in. lb. LCT lepto Mg MiG MLV N	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI PI 3	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI PI PI3 preg-ch	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl3 preg-ch Se	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl3 preg-ch Se sq. ft.	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium square feet
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI PI3 preg-ch Se sq. ft. SPA S	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium square feet
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl3 preg-ch Se sq. ft. SPA S TB	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium square feet itandardized Performance Analysis bovine tuberculosis
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl3 preg-ch Se sq. ft. SPA S TB TDN	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium square feet tandardized Performance Analysis bovine tuberculosis total digestible nutrients
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl3 preg-ch Se sq. ft. SPA S TB TDN THI	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium square feet standardized Performance Analysis bovine tuberculosis total digestible nutrients temperature-humidity index
IBR ID IM in. lb. LCT lepto Mg MiG MLV N P PI Pl3 preg-ch Se sq. ft. SPA S TB TDN	infectious bovine rhinotracheitis identification intramuscular inch pound lower critical temperature leptospirosis magnesium management-intensive grazing modified-live virus nitrogen phosphorus persistent infection parainfluenza-3 virus neck pregnancy-check selenium square feet tandardized Performance Analysis bovine tuberculosis total digestible nutrients

Midwest Region

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

Biosecurity

With show season starting, it is a good time to review biosecurity procedures. Any time we take cattle to another location and return, introduce a new animal to the herd or show people around the farm, we increase the risk of introducing disease. As cattle prices increase, the results of a poor biosecurity program (reduced performance, loss of genetic progress, or increased morbidity or mortality) become increasingly expensive.

The goal of a biosecurity program is to prevent the introduction of harmful pathogens. Pathogen sources come from every facet of the environment, such as feeds, forages, processing and feeding equipment, water sources, livestock and wildlife contact, transport vehicles, and farm visitors.

There are three components to a biosecurity program: isolation, traffic control and sanitation. Isolation is the component with which producers are most familiar. When bulls or replacement heifers are added to the herd, plan to isolate them for 30 days. Isolation areas should prevent contact with native cattle. Ideally, the arrival area is relatively isolated from the area where native cattle are kept and separate from the working facilities so the ranch can continue operations without moving new animals.

Isolation is not just for new arrivals. Bad fences can allow you and your neighbors to trade animal health problems. Diseases can be transferred from your herd to the next by any animal wandering into a pasture where fencing was not maintained. Consider fixing the neighbor's fence that they continue to neglect, for no other reason than to keep from trading animal disease between herds.

Traffic control is related to isolation in that producers should work to control both animal-to-animal transmission and human-to-animal transmission. Minimize the contact people have with your livestock. This is especially true if they are coming from another operation with less-than-desired health-control programs. Pathogens can be introduced by dirty boots, clothes or vehicles. One way to help manage visitor traffic is to insist you are the first stop of the day. This prevents the visitor from bringing pathogens

from a farm they visited earlier in the day, assuming they clean their boots before leaving the house.

Traffic control should also be part of your movement around the farm. Move from most to least susceptible, or from young to old, and healthy to sick. This minimizes exposure of younger and healthy animals to pathogens other groups of cattle may be harboring. Traffic control is difficult because many producers enjoy visiting with neighbors, so using sanitation will help maintain relationships while preventing disease transmission on and from your operation.

Equipment sanitation is important if you have any blood-borne disease challenges, such as anaplasmosis. Change needles and disinfect equipment with alcohol, bleach or chlorhexidine solutions to prevent pathogen transfer.

Feed- and manure-handling equipment must be separate. Use different buckets for manure and feed loading. The same can be said for hauling healthy, sick and dead animals. Clean and disinfect trailers or trucks when hauling different risk classes of cattle.

A comprehensive biosecurity plan is a challenge to develop and maintain; however, working with your local veterinarian and using quality-assurance material can help producers address severe biosecurity challenges at a time when the cost of disease loss is increasing.

Southern Great Plains

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

Spring-calving herds

Breeding bulls should be removed from the cow herd after 60-90 days.

If you are in a region where May and June precipitation was abundant, you may need to consult your veterinarian regarding the potential value of deworming nursing calves during mid- to late summer. Response to the anthelmintic generally increases in wet years, although response will vary substantially depending on other factors, such as grazing intensity and previous parasite management.

Fall-calving herds

Wean fall-born calves before the middle of

July to allow cows time to regain body condition before calving again.

At weaning, vaccinate calves according to your veterinarian's recommendations, deworm calves, preg-check cows and heifers, weigh and estimate condition scores of cows, and weigh calves. Transfer records for your whole herd to the American Angus Association.

A small package of high-protein supplement, such as recommended in the Oklahoma Gold program, can facilitate around a 2-lb. ADG on weaned heifers and bull calves grazing abundant native pastures during July, August and September. A strategic deworming program and the inclusion of a feed additive such as Bovatec,® Rumensin® or chlortetracycline are important features in this program.

General comments and recommendations

As of this writing, soil moisture conditions were extremely variable in the region and similar to this time in 2013. In general, there is continued drought in the west and excellent moisture in the east. Most livestock water sources have been replenished in the east, while lake- and pond-water levels in the central and western areas are marginal to extremely low.

A big difference between this summer and 2013 is that dramatically fewer acres of wheat or cool-season annual forage were harvested for hay this year in the western part of the region. Bermuda grass, prairie hay and other perennial forages' yields will likely be substantially lower than long-term averages on the western side of the region. Prospects for summer annuals are very good in the east and marginal at best in the west at this point in time. However, a few timely rains can change that scenario overnight.

Overall, this scenario is likely to create an extreme gradient in hay supply with abundant grazing and hay available in the eastern side of the Southern Great Plains and drastic shortage of hay in the western side of the region. Producers should be planning now for their winter forage needs and the possibility of needing to find grass elsewhere or sell some cattle. Hay will be an extremely valuable commodity once again.

Remember that a forage test leads to informed decisions regarding the organization and planning for a cost-effective winter-feeding program and hay marketing. A list of forage-testing laboratories certified through the National Forage Testing Association is available at www.foragetesting.org.

Moderate to low stocking rates are recommended to allow pastures and

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rangelands to facilitate recovery from drought stress.

Continue fly- and tick-control programs 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.

Harvest Sudan grass and Sudan hybrids for hay in the boot stage, which generally corresponds to 3 ft. to 4 ft. in height. A routine nitrate test on forage before harvesting may be advisable, particularly if soil moisture has been scarce prior to harvest.

Treat cattle for grubs after heel fly activity ceases and before larvae reach the back, generally between July 1 and Oct. 1.

Western Region

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

General management

Pasture irrigation and thistle control. If

irrigated pastures are part of your forage resources, timely irrigation during hot summer months is critical in terms of affecting forage production. Mid-summer is also an excellent time to try to control thistle or other invasive weeds in pastures. This year

in California, availability of irrigation water is a major issue in many areas.

Pinkeye prevention. Mid-summer is the time of the year when problems with pinkeye can become quite prevalent, and treatments can become time-consuming. The incidence of pinkeye can be reduced by clipping tall, mature grasses; and controlling flies with dust bags, pour-ons and/or fly tags. In addition, availability of shade helps to reduce the incidence of pinkeye. It is important to treat problems quickly and aggressively, thus reducing the spread of the disease by flies.

Antibiotics such as the long-acting oxytetracyclines are very effective in treating pinkeye. A more inexpensive treatment option, but one that is more difficult to administer, is to treat the infected eye with an injection of 2 cc under the membrane that covers the upper portion of the eyeball with a mixture of 90% penicillin and 10% dexamethasone. Most people prefer to apply patches to infected eyes, and those can be made very easily from old, worn-out jeans. Leave the bottom portion of the patch unglued so the eye can drain.

Fall-calving herds

Cows are on cruise control.

Reproductive management

Vaccinations. If any precalving vaccinations, such as a scour vaccine, are going to be used, now is the time to decide on the specific product and get products on hand.

Nutritional management

Mineral supplementation. Be sure that cows are receiving adequate levels of calcium, phosphorus and trace minerals that are deficient in your area. The period from calving through the end of the breeding period is the best time to take advantage of chelated 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 more information online at www.cowbcs.info).

Protein and energy supplementation.

Mid-summer is typically a time of the year when fall-calving cows will maintain themselves adequately with no need for either energy or protein supplementation as long as dry forage is available. The availability of dry forage is a major problem in many areas of California this summer because of the drought conditions this past winter.

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.

Spring-calving herds

Focus on breeding season and sucklingcalf health.

Reproductive management

Breeding season. Depending on desired calving dates, the AI breeding period should be concluded. Monitor return heats and cleanup bull performance for any problems that may arise.

Nutritional management

Mineral supplementation. Be sure that cows are receiving adequate levels of calcium, phosphorus and trace minerals that are deficient in your area.

Energy balance. Energy balance has a major impact on fertility, and thus it is critical that cows are in a state of positive energy balance or gaining weight during the breeding season.

Health management

Treatment protocols. Treatment

protocols and products should be on hand for scours and pneumonia in suckling calves.

Mid-South Atlantic Region

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

July moves us into the middle of summer, which is a period of time when our chores with the cattle are typically minimal.

However, one of those regular chores is keeping mineral out for the herd. Placement of mineral feeders can assist in more uniform pasture utilization by placing feeders well away from water sources and locating them in areas where cattle spend less time grazing. Another key consideration is composition of the mineral provided to the herd. Grass tetany season has passed, so there is no benefit of providing a high-magnesium mineral.

Our region of the country is deficient in selenium, so whether you provide a tracemineral salt or a complete mineral mix, it should be fortified with selenium.

Historically, phosphorus has been a mineral of focus, but recent research at Virginia Tech would suggest that well-fertilized pastures are adequate in phosphorus and do not require additional supplementation. The research also demonstrated that providing higher levels of phosphorus above requirements resulted in more phosphorus being excreted.

Pastures that have not received manure or commercial fertilizer could be low in phosphorus. Mineral analyses of some forage-grab samples are the best way to determine if phosphorus or other minerals are adequate for your cow herd.

Spring-calving herds (January-March) General

Focus on breeding season, forage management and calf health.

Manage first-calf heifers separately; give them the best forage and supplement.

Nutrition and forages

Switch from high-magnesium minerals to high-selenium mineral as grass matures.

Manage growth of warm-season grass pastures by rotational grazing.

Implement rotational grazing management system that will provide a beneficial rest period for pastures. July can be a challenging forage-management month. Depending on moisture, cattlemen are either trying to extend the utilization of mature early forage growth, or, if moisture is abundant, manage the growth of warmseason forages.

Store your high-quality hay in the dry. Collect and submit forage samples for nutrient analysis.

Herd health

Implement parasite- and fly-control program for the herd.

Administer mid-summer deworming and implant.

Consult with your veterinarian for a pinkeye control and treatment program.

Plan vaccination and preconditioning protocol for calf crop.

Castrate commercial calves (if not done at birth), consider castrating bottom end of male calves in seedstock herds.

Reproduction

Remove bulls from replacement heifers after 45-day breeding season.

Make plans to pregnancy-check heifers as

soon as possible after bull removal. This will allow options in marketing open heifers.

Monitor bulls closely during the breeding season to confirm breeding performance and soundness, and monitor cows for repeat estrus. Avoid overworking young bulls (a rule of thumb — yearling bulls should be exposed to number of cows equal to their age in months).

Remove bulls after 60 days for a controlled calving season.

Fall-calving herds (September-November) General

Wean calves to allow ample opportunity for cows to replenish BCS prior to calving.

Finalize marketing plans for calf crop. Time weaning, vaccination program and weaning management in concert with marketing plans. Calculate breakevens on various marketing options and consider riskmanagement strategies.

Market open cows. Cull cow prices typically peak mid-spring through mid-summer, and prices are generally stronger for cows in good body condition vs. thin cows (evaluate forage availability and potential feed and management costs to increase BCS of cull cows, if warranted).

Nutrition and forages

Switch to high-selenium trace-mineral salt. Score bred females for body condition. Plan nutrition and grazing program based on BCS. This is the most efficient period to put weight and condition on thin cows.

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

Manage growth of warm-season grass pastures by rotational grazing.

Implement rotational grazing

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management system that will provide a beneficial rest period for pastures. July can be a challenging month for managing forage. Depending on moisture, cattlemen are either trying to extend the utilization of mature early forage growth, or, if moisture is abundant, manage the growth of warmseason forages.

Store your high-quality hay in the dry. Collect and submit forage samples for nutrient analysis.

Herd health

Administer mid-summer deworming on replacement heifers and pregnant heifers.

Implement parasite- and fly-control program for the herd.

Consult with your veterinarian for a pinkeye control and treatment program.

Implement vaccination protocol for the calf crop. Design vaccination and weaning program around marketing goals and objectives. Vaccinate, wean and certify calves to be marketed in late summer.

Reimplant commercial calves.

Genetics

Identify replacement heifers. Utilize available tools, including genetics, dam performance, individual performance and phenotype. Restrict pool of replacement heifers to those born in a defined calving season.

Finalize plans for postweaning development and marketing of bulls in seedstock herds.

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