



# Angus Advisor

► JUNE herd management tips

## 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 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 syncytial virus
brucellosis	Bang’s disease
BSE	bovine 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
ID	identification
IM	intramuscular
in.	inch
lb.	pound
LCT	lower critical temperature
lepto	leptospirosis
Mg	magnesium
MiG	management-intensive grazing
MLV	modified-live virus
N	nitrogen
P	phosphorus
PI	persistent infection
PI <sub>3</sub>	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

## Mid-South Atlantic Region

by **Kevin Shaffer**, West Virginia University, [Kevin.Shaffer@mail.wvu.edu](mailto:Kevin.Shaffer@mail.wvu.edu)

By now, hay season is in full swing and the major management concern is making feed for next winter; however, doing a little planning now can put more than a few extra dollars in your pocket this fall. Consider the following strategies to help improve your bottom line:

**1. Preconditioning.** It is well-documented that weaning and bunk-training calves better prepares them for the next stage of production while also adding value. When combined with a comprehensive health program, preconditioned calves exhibit greater feedlot performance and reduced mortality and morbidity. From 2001 to 2014, preconditioned calves marketed through the WV Quality Assurance Marketing Program have returned an average of \$64.45 per head more than premium graded calves of equivalent weight that were not preconditioned. Check with your local extension office or cattlemen’s group about similar opportunities in your state.

**a. Book inputs early.** Check prices early and often before demand drives them higher. Consider booking feed with your neighbors to receive volume discounts. Look at the impact feed prices have on daily cost of gain when you feed 5 lb. per head per day for 45 days.

Price/ton	Cost/head/day	Total cost
\$300	75¢	\$33.75
\$325	81¢	\$36.45
\$350	88¢	\$39.60
\$375	94¢	\$42.30
\$400	\$1	\$45.00

**b. Stockpile forage.** Grazed forages are the most inexpensive feed resource you have. Stockpile meadow regrowth or other higher-quality forages to provide calves the postweaning nutrition they need and significantly reduce your cost of gain.

**2. Herd health program.** Consult with your veterinarian to develop an appropriate vaccination protocol to complement your calf preconditioning program.

**3. Know your breakeven.** Calculating breakeven price can seem like a daunting

task, but with a little time and effort, you can get a pretty good idea of where you need to be on sale day. A good way to start is to calculate your cost of gain (COG) during the preconditioning period. Begin by identifying all your sources of expense (i.e., grazed forage, hay, supplement, minerals and labor) and convert them to similar units (\$ per head per day).

For example, if your supplement costs \$400 per ton and you feed 5 lb. per head per day, it costs you \$1 per head per day to feed supplement. If you add 25¢ per day for hay (5 lb. per day at \$100 per ton), 50¢ per day for grazeable forage and minerals, and 50¢ per day for labor, your total would be \$2.25 per head per day.

Then, divide your cost per head per day by your projected daily gain to calculate COG. If you anticipate your calves will gain 2 lb. per day, then your COG would be \$1.13 per lb. If they gain 2.5 lb. per day, your cost of gain goes down to 90¢ per lb. Any price received above COG is profit that you would have otherwise left on the table and your time and money spent on preconditioning

## Meet our new columnist

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**Kevin Shaffer**

master’s and doctoral degrees in animal sciences from West Virginia University (WVU) and specializes in the areas of nutrition, feed efficiency and management in beef cattle with a strong interest in

breeding and genetics. At present, Shaffer is an assistant professor with the WVU Extension Service and the WVU Division of Animal and Nutritional Science. In his current role, he supervises the Wardensville and Southern West Virginia Bull Test programs, as well as the West Virginia Quality Assurance Feeder Cattle Marketing program; serves as faculty coordinator of the WVU purebred beef unit; and teaches beef cattle management and breeding courses.

the calves is already paid for by the weight gain.

### **Spring-calving herds**

#### **Reproduction**

- ▶ Monitor bull performance and health regularly. Utilize a short exposure period to females — a maximum of 45 days for heifers and 60 days for cows (from the date of AI).

#### **Herd health**

- ▶ Monitor animal health and consult with your veterinarian regarding parasite control, fly control and pinkeye control/treatment programs.

#### **Genetics**

- ▶ Verify that calving records are complete and up-to-date. Identify calves that may require parentage verification so that DNA samples can be collected and submitted at a convenient time.
- ▶ If you did not tattoo calves at birth, assign permanent calf IDs so you are prepared to tattoo at weaning and have the appropriate information to submit weaning data once weights are collected.
- ▶ If you are enrolled in MaternalPlus®, organize and prepare to submit breeding records on yearling replacement heifers.
- ▶ Maintain cows in as large groups as forage availability and management will allow to maximize weaning contemporary group size.

### **Fall-calving herds**

#### **General**

- ▶ Prepare for weaning and finalize calf marketing and/or postweaning development plans.
- ▶ Develop a marketing plan for cull cows.

#### **Herd health**

- ▶ Administer preweaning and/or weaning vaccinations and parasite-control products according to your herd-health program.
- ▶ Monitor weaned calf health closely.

#### **Genetics**

- ▶ Collect weaning weights between 120 and 280 days of age. Submit data to your Association with appropriate management and contemporary group codes.
- ▶ Collect cow weights and body condition scores within 45 days of weaning, and submit data to the Association.
- ▶ Update female inventory and submit appropriate disposal codes for cull cows and heifers.
- ▶ Utilize available data to begin to identify

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replacement females and bulls for further development. Ideally, most heifer calves should be retained through breeding to make informed replacement female selection decisions while lower-performing bulls should be castrated postweaning.

- ▶ Contact bull owners and/or semen companies to purchase necessary AI certificates to register calves postweaning.

## Southern Great Plains

by **David Lalman**, *Oklahoma State University*, [david.lalman@okstate.edu](mailto:david.lalman@okstate.edu)

### Spring-calving herds

- ▶ Follow the vaccine program outlined for branding time.
- ▶ Consult your veterinarian regarding the need to deworm young cows and calves in June. This investment will depend a great deal on the location of your operation, forage species, stocking density, previous internal parasite management and other factors. More information is available now regarding parasite resistance to specific products, and your veterinarian will be aware of products and programs

that should be appropriate in your area.

- ▶ June mid-day temperatures can suppress aggressive estrous activity. Therefore, visual heat detection should be done in early-morning and late-evening hours.
- ▶ Turn bulls out with cows after the AI program is completed. The bull-to-cow ratio will vary depending on the number of cows or heifers serviced to AI and the age of the bull. A conservative rule of thumb is to expose bulls to about 10 cows per year of age, and up to 30 open cows.
- ▶ For breeders who choose to creep-feed calves grazing native pastures, consider using a limit-fed, high-protein creep beginning around the end of June. Locally, we refer to this approach as the Oklahoma Silver program, where calves consume around 1 lb. per day of supplement. Weight gain is improved substantially, and calves do not become fleshy compared to calves on free-choice, lower-protein creep-feeding programs. The conversion of feed to additional weight gain is drastically improved compared to a traditional creep-feeding program.

### Fall-calving herds

- ▶ Depending on pasture and range conditions, producers may need to consider weaning fall-born calves earlier this year. A

dam's milk production and calf performance decline dramatically in late June and July due to declining forage quality and summer heat. However, a dry cow's nutrient requirements are substantially lower than a growing calf's requirements. Therefore, a dry cow can graze lower-quality late-summer forage and still gain weight and body condition with no supplementation.

- ▶ At weaning, vaccinate calves according to your veterinarian's recommendations, deworm calves, weigh and condition-score cows, and weigh calves. Transfer records for your whole herd to the American Angus Association.
- ▶ A high-protein supplementation program, such as the Oklahoma Gold program, can facilitate around a 2-lb. ADG in weaned calves grazing native pastures with abundant forage.

### General recommendations

- ▶ In Oklahoma, more foot rot cases are observed in June than any other month. Develop a plan for treatment with your veterinarian, and acquire the necessary supplies.
- ▶ Plan to harvest native grass hay during early July to achieve near-optimum balance between quality and

quantity of hay. Harvest Bermuda grass hay, or graze Bermuda grass at about 30-day intervals when precipitation is abundant. All else being equal (maturity, precipitation, soil fertility, etc.), Bermuda grass harvested for hay in June has higher digestibility than Bermuda grass harvested in the hot summer months of July and August.

- ▶ Begin grazing Sudan grass and Sudan hybrids when 18- to 24-in. high, and be sure to check the plants for nitrates, particularly if the plants are drought-stressed.
- ▶ Federal and state estimated tax payments are due June 15.

## Western Region

by **Randy Perry**, California State University, Fresno, [randyp@csufresno.edu](mailto:randyp@csufresno.edu)

### Fall-calving herds

The main focus is to keep weaned calves healthy. Cows are on cruise control.

### Reproductive management

**Pregnancy check.** Cows should be preg-checked, and open and problem cows should be culled. Avoid holding over open cows even if they have been excellent producers, as typically the problem will reoccur.

### Nutritional management

**Body condition.** Monitor body condition of cows. The target level of body condition at calving is 5.0 for mature cows and 5.5 to 6.0 for 2-year-old heifers (scale = 1 to 9).

**Heifer and bull development.** The developmental period from weaning until yearling time and beyond to the start of the breeding period is critical in terms of influencing the future productivity of both bulls and heifers. Both sexes need to be developed at adequate rates so that differences in terms of genetic potential for growth can be exhibited. However, neither sex should be developed at extremely high rates as excessive fat deposition can hinder future reproductive performance and detrimentally impact foot and leg soundness.

### Health management

**Weaned calves.** Weaned calves should be treated to control any internal or external parasites. Heifer calves should be Bang's vaccinated if not already done, and both bulls and heifers should be PI-BVD tested if that is part of your animal health management program.

**Pregnant cows.** If late-term abortions have been a problem in the past, consider booster vaccinations for leptospirosis at preg-check time.

### Spring-calving herds

The main focus is breeding season and suckling calf health.

### Reproductive management

**Breeding season.** Depending on desired calving dates, the AI breeding period should be close to being concluded. Monitor return heats for any patterns that may arise in terms of low conception rates with specific sires. Also consider using GnRH injections with repeat inseminations. In addition, be sure that cleanup bulls have been semen- and trich-tested and are ready for use in terms of vaccinations and health, body condition, and foot and leg soundness.

### Nutritional management

**Mineral supplementation.** Be sure that 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 the period from calving until conception is the most critical in terms of influencing reproductive performance.

Many of the companies have mineral mixes that are available that have a higher percentage of chelated minerals. These products are more expensive, but we have

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had very good results feeding these during the breeding season. Many breeders also have experienced good results using injectable products such as Multimin® prior to the breeding season.

**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. June is normally a month when cows will be grazing pastures that are of sufficient quality to maintain cows in

positive energy balance without any need for supplementation.

### Health management

**Treatment protocol.** Treatment protocols and products should be on hand for scours and pneumonia in suckling calves. It is well-advised to have first and second treatment options for both conditions. Early summer is typically the time of the year when we experience the most problems with pneumonia in young calves. Monitor calves closely, and be quick and aggressive with treatment, as young calves will go downhill quickly.

### General management

#### Castrate bottom-end bull calves.

Producers should consider castrating the bottom end of their bull calves at 2 to 3 months of age when they receive their first round of vaccinations. Some producers are reluctant to do this because of the impact that it has on contemporary groups and performance records. However, there is typically more profit in selling a weaned steer calf vs. a cull yearling bull that has accumulated a significant amount of development costs.

**Pinkeye prevention.** 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. Our preferred treatment is an injection of approximately 2 cc (mixture of 90% penicillin and 10% dexamethasone) under the membrane that covers the upper portion of the eye and to then cover the eye with an eye patch.

## Midwest Region

by **Patrick Gunn**, Iowa State University, [pgunn@iastate.edu](mailto:pgunn@iastate.edu)

### Parasite Control Part 1

By now, nearly everyone with access to pasture has turned cows out or is very close to doing so. The great thing about summer is that it is typically a time when we can sit back, relax and watch cows do what they were designed to do, which is graze.

With this said, don't lose sight of the fact that we are still asking cows to nurse a calf, breed back in time to maintain a 365-day calving interval, need minimal health intervention, and hopefully maintain body condition. Energy balance is vital to these processes and can be grossly compromised in cattle with any level of internal or external parasite burden. This month, in the first of a two-part series on parasite control, I will focus on internal parasites in the cow herd.

Endoparasites, often referred to as internal parasites, are typically classified as

either nematodes (roundworms), cestodes (tapeworms) or trematodes (flukes). In the Midwest, tapeworms and flukes are generally not of concern, so I will concentrate my thoughts on roundworm prevention and treatment.

There is little doubt that roundworms can have a significant drag on production. Although few studies have been conducted in recent years, data indicate cows that have been dewormed may have breeding season pregnancy rates that are 10-15 percentage points greater than cows that are not dewormed.

In addition to pregnancy rates, milk production is also compromised in cattle carrying an internal parasite burden. A Minnesota study published in 1997 by Stromberg and colleagues reported more than a 6 lb. difference in peak daily milk production between beef cows that were and were not dewormed at the beginning of the grazing season. Thus, it is no surprise that proper deworming has been shown to routinely improve calf weaning weights.

An analysis conducted by Lawrence and Ibarbaru at Iowa State University in 2007 highlighted the advantages of deworming. In that analysis they determined that not deworming resulted in a loss of production upward of \$165 per cow-calf unit, with nearly 70% of that loss attributed to reduced pregnancy rates. In today's dollars, this report would suggest a loss of nearly \$200 per cow-calf unit in operations that do not deworm.

It should also be noted research has demonstrated that economically relevant production losses can occur even when internal parasite levels are less than 5 eggs per gram of fecal matter. Although fecal sampling is a good management practice to determine effectiveness of parasite management, it should not be assumed that a "low" fecal egg count is not relevant.

Whether using an injectable, drench or pour-on product, be aware that the duration of effectiveness can range from 15-150 days depending on the product you are using. Therefore, operations that have increased exposure to larvae by way of longer grazing seasons or overgrazed pastures may benefit from multiple treatments throughout the year. Alternatively, work closely with your herd health veterinarian to develop a strategically timed treatment protocol that will maximize effectiveness of the product(s) you are using.

As always, to optimize your summer grazing program, consult with the team of experts you have assembled, including your beef extension specialist, nutritionist and herd health veterinarian.

