



# Take Care of

## Ten tips for cattle well-being.

by **Barb Baylor Anderson**, field editor

**E**very producer has their own system for providing the best cow care, but beef industry professionals say that system should be revisited from time to time to keep cows in tip-top shape. Here are 10 of the top recommendations from extension specialists from around the country.

### 1 Match genetics to the environment

Cows cannot reach their genetic potential without a proper environment and adequate resources. Patrick Gunn, Iowa State University Extension cow-calf specialist, advises cow-calf producers to select the right genetics for their specific environment. For example, selecting for improved milk production may not prove beneficial if you are located in an area where forage cannot support added milk.

Gunn cites information from Matthew Spangler, University of Nebraska animal scientist, who says selection is critical in matching genetics to the environment.

“With limited nutrient availability, breeds with a high genetic potential for milk

production have longer anestrus periods, which lead to lower conception rates during a fixed breeding season ... Other researchers have concluded that selection for increased milk production past an adequate threshold is not economically or biologically efficient,” Spangler’s report reads.

Angus producers can consult the cow energy dollar value index (\$EN), which is measured in dollars of savings per head due to decreased energy requirements for maintenance, as a resource for matching genetics to the environment. In low-resource environments, a high \$EN is more desirable. The Optimal Milk Module helps producers gauge appropriate levels of genetic potential for milk production, as measured by milk expected progeny differences (EPDS), given a user-provided environmental description.

On a related environmental note, Ron Lemenager, Purdue University beef nutrition and management specialist, advises producers to manage for their environments; provide shade and a cool, fresh water supply to combat heat stress; and provide adequate nutrition, wind protection and bedding to minimize teat and scrotum frostbite and to manage wind chill and cold stress.

“Mud and manure also can increase nutrient requirements, feet and leg problems and disease challenges,” he says. “Utilize bedding when and where appropriate and filter fabric (geotextile) in high-traffic areas; create well-drained areas; build mounded areas; and scrape lots, pads and concrete aprons to minimize mud and manure buildup.”

### 2 Avoid high stress during handling

High stress levels in cows can reduce performance and increase the risk of injury, abortion and other health concerns. Gunn encourages producers to minimize use of electric prods, avoid loud noises and move cattle at a walking pace using a proven low-stress handling system, such as Temple Grandin’s or the Bud Box, named after renowned low-stress animal handler Bud Williams.

“It is important to take the extra time to prevent negative experiences with cows and not frighten them. Introduce them to working facilities in a positive way,” says John Arthington, director of the University of Florida (UF) Range Cattle Research and Education Center. “Improvements in temperament have been sought through improved handling and management, and we recognize an association between temperament and growth, carcass quality and reproductive performance.”

Arthington says results of two UF studies suggest that temperament has an important, measurable influence on the likelihood of achieving pregnancy in a controlled breeding season. The first study was conducted across two years with 40 heifers weaned at about 7 months of age. They were randomly assigned to an acclimation group or control group. Acclimated heifers were walked three times per week for four weeks from the pasture to the working facility. The heifers gained 0.18 pound (lb.) per day less with added exercise than control heifers, but also had lower blood concentrations of cortisol, the protein produced in response to stress.

“Acclimated heifers were experiencing a lesser amount of stress during the handling and sample collection procedure compared to the control heifers. Acclimated heifers achieved puberty sooner and became pregnant earlier in the breeding season compared to control heifers,” he says.

The second test, involving acclimating



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mature cows to human presence, appeared to have no impact on changes in cow temperament or the probability of pregnancy.

### 3 Plan defined, relatively short calving season

● Justin Rhinehart, University of Tennessee beef cattle specialist, believes the calving season is the most important single management practice relative to cow well-being and profitability. As a general rule, he says herds with a defined and concentrated calving season are better cared for and generally healthier.

“A short season lets you pay close attention to cows when they are calving. You can focus attention on labor when it is needed, and plan for and around seasonal weather patterns,” he says. “You can manage nutrition better by feeding all cows at the same point in their production cycles, which reduces the instance of high-lactation cows getting marginal nutrition or dry cows getting too much.”

It also allows you to appropriately administer health protocols at the same time, rather than being too late for the early calves or too early for the youngest calves, he adds.

### 4 Be sure to stock plenty of bull power

● Overworked bulls get thin and become less fertile over the breeding season,

potentially resulting in more open cows. Gunn suggests a rule of thumb for the ratio of mature bulls to mature cows: 1 bull for 25-35 cows in smaller areas, and 1 bull for every 12 cows across larger range. Ratios can be adjusted for multi-sire pastures.

“Some producers may push synchronization and reduce the number of bulls, but I don’t agree. The cows that do not become pregnant with AI (artificial insemination) all will likely come into heat in a four- or five-day window, running the bull ragged,” he says. “Regardless of the system you use, have plenty of bulls to mate with cows.”

### 5 Pregnancy-check cows early

● Few producers may pregnancy-check cows shortly after the breeding season is over, but Bob Weaber, Kansas State University (K-State) Extension cow-calf specialist, says the process is critical to knowing whether your AI program and bull are working. He recommends ultrasound as a safe way to pregnancy-check earlier.

“Early intervention is best so you can manage it,” he says. “Don’t rely on calving season as evidence of success of the breeding season. Pregnancy check cows before spring, especially in dry and drought areas. Carrying open cows over winter can be expensive. Carefully evaluate the causes of open cows, and cull those with known causes for failure to breed.”

Weaber adds that given the high cost of developing replacement females, it may be worthwhile to keep open cows that are sound and in good body condition and open due to an infertile bull or battery of bulls. To prevent open cows from gaining too much condition, separate them for feeding during winter. Knowing which cows are open improves culling and feeding decisions.

Lemenager suggests producers also

cull cows before arthritis, broken mouths or unsoundness causes cows to become emaciated. Emaciated cows have reduced salvage value and productivity. He recommends culling cows that are “bad actors,” have vaginal prolapses or bad udders.

### 6 Monitor, meet optimal nutrition needs

● Although undernutrition is going to prevent optimal health and productivity, overnutrition can be just as costly, says Gunn. Overconditioned cows have reduced reproductive capacity and produce less milk. He says a body condition score (BCS) of 7 or higher will show some inherent issues with fertility and negative effects on temperature and reproductive tract issues. A BCS of 4.5-6.5 is best.

Weaber says monitoring BCS throughout summer and into fall can help producers meet nutrient requirements and decide when to wean calves. A K-State study involving calves left with cows past Sept. 1 shows that every month the calf stays, the cow loses one BCS score.

“Cows below a 5 at weaning must be fed over winter to regain condition and be at a recommended BCS of 5 at calving. Winter is an expensive time to do that. If you are a January-February calver and wait to wean calves until November 1, that leaves only 60 days to put condition back on cows. If they are very thin, you may not be able to get enough high-quality feed through the cows to achieve the needed gains in condition,” he says.

An alternative is to early-wean calves, which reduces nutrient demand on grazed

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forage from calves, but also decreases cow intake by eliminating nutrient demand due to lactation.

“Plan weaning so that cows don’t lose much body condition and can maintain or gain that condition on grazed native forage in early fall,” says Weaber. “Use BCS to manage winter feed resources. Allocate feed by separating low-BCS cows, which are likely first-time heifers and geriatric cows, from adequate- to abundant-BCS cows. That gets feed to cows that need it. Separating feeding groups prevents underfeeding thin cows and overfeeding fleshy cows. In the end, you likely feed the same amount of forage, but the allocation will have been much more effective.”

For more on condition scoring, refer to [www.cowBCS.info](http://www.cowBCS.info).

### 7 Maintain adequate mineral program

● Minerals play a role in nearly every bodily function, including immune response. Gunn says cows that are mineral deficient will not attain their genetic potential. Producers need a baseline mineral program to maximize efficiency. He suggests supplementing magnesium about a month before turning cows into pastures. Depending on soil conditions, selenium or iron may or may not need to be supplemented, as well.

### 8 Set and follow consistent vaccination schedule

● Every operation is different, but Gunn says whatever your vaccination program is, stick with it. “A consistent plan

with vaccinations given at the proper times can prevent a wreck,” he says. “Ask your veterinarian for suggestions.”

In addition, Lemenager reminds producers to vaccinate and administer injectables on clean, dry hides. Wet, dirty hides increase the probability of abscesses.

“Vaccinations enhance immune response and offer reduced physiological need to recover from disease,” he says. “Deworming is important for the same reasons and for increased milk and reduced nutrient demand. You use less supplemental feed and have better feed utilization.”

### 9 Provide good parasite control

● The annual economic loss to horn flies in the U.S. cattle industry is \$1.36 billion, says Justin Talley, Oklahoma State University Extension livestock entomologist. Losses come as reduced weight gains and milk production, less efficient use of forage, direct physical harm or damage, and the cost of controlling or reducing pest populations.

“Cattle with good BCS tolerate higher pest populations before economic injury occurs,” he says. “But you can see 24-28 generations of flies in one summer. When 200 or more flies bite 20-25 times per day, the stress can increase cow respiration and temperature. As flies per animal go up, the gallons of water consumed rise from 4.3 to 6.6 gallons per day, which stresses milk flow.”

Talley says growing cattle gain an extra 1.5 pounds per week when horn flies are controlled. “Because the horn fly spends all of its adult life on cattle, control with insecticides can be highly effective,” he says. “The fly season can run March through September.”

Talley prefers using treated ear tags. He advises not using a pyrethroid ear tag

more than once every three years or an organophosphate ear tag more than two years in succession. Continuous use of ear tags in the same insecticide class eventually results in horn-fly resistance. Tags should be removed at the end of fly season, after the first freeze or when they lose their effectiveness.

“If additional horn-fly control is needed later in the season, use sprays, pour-ons, dusts or backrubbers,” he says. “Spraying is a good option from the back of a four-wheeler.”

Lice control should be initiated in late fall, especially in herds with a history of springtime lice problems. Ten or more lice per square inch can significantly reduce weight gains in cattle.

“Lice mainly occur in high numbers during the winter months. Inspect all new cattle before introducing them into the herd and isolate until lice are suppressed. Insecticide treatment should be implemented when there are two or more lice per square inch,” he says.

### 10 Keep employees fresh and happy

● Overworked and tired employees are not the best cattlemen they can be, says Iowa State’s Gunn. “It depends on the size of the operation, but hiring an extra employee so others can have more time off and work only two weekends out of a month, for example, instead of every weekend, can help,” he suggests. “When you provide more labor and time off, you can minimize cattle-handling concerns and equipment breakdowns.”



**Editor’s Note:** A former National Junior Angus Board member, Barb Baylor Anderson is a field editor located at Edwardsville, Ill.