

ACCLIMATION

Steps to take to ensure your newly purchased bull accomplishes his mission in the breeding pasture.

BY ANGIE STUMP DENTON

It's that time of year again. You're looking for that new herd bull prospect that will genetically help you meet your long-range goals. You have several options. You can attend an Angus production sale, contact a seedstock producer who has bulls for sale via private treaty or you can attend a performance-tested bull sale.

No matter which option you choose, when you bring your new purchase home, he'll need to be acclimated to your environment and management to perform at his best. Consider these tips.

■ Get him home

"It's important to get the new prospect to its new environment as soon as possible," says Doug Hixon, University of Wyoming Extension beef specialist. "It takes 60 to 70 days from when a sperm cell is generated until it's ejaculated," he explains. Stress from hauling or introduction to a new environment and any change in body temperature can cause the production of unviable sperm or temporary sterility.

■ Ease him in

"New purchases generally have been under some stresses — hauling, sale day, ration changes, water changes, penning, mixing, etc. — thus they should be allowed to rest a few days in a pen by themselves," says Jim Gosey, University of Nebraska-Lincoln Extension beef specialist. It's important to provide the newcomer a dry place to lie down and at least a windbreak.

"A new yearling bull should not be mixed



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Turning a bull out without acclimating him to his new environment can cause him to go off feed and could lead to poor health and poor conception rates.

with other yearlings too soon," Gosey says. Larger lots or pastures with a variety of terrain and trees help to ease social acclimation of yearlings into a larger group.

Gosey cautions producers to wait to mix yearlings with older bulls until after their second breeding season. This allows younger bulls to continue to grow and develop.

Don't take a bull home and turn him right out with the cows, warns Doug Parrett, University of Illinois professor of meat animal evaluation. Turning a bull out without acclimating him to his new environment can cause him to go off feed and could lead to poor health and poor conception rates.

Turning out young, unconditioned bulls increases the risk of injury, agrees Gosey. "Young bulls are often aggressive in their mating instincts, but because of inexperience, their mating behavior is awkward." Young bulls often aren't as physically fit and may lack the stamina to

perform repeated matings efficiently, predisposing them to rapid weight loss and injury.

"These are valid reasons for starting younger bulls out in a smaller breeding pasture. The less the territory a young bull has to cover the better," adds Dan Brown, University of Georgia (UGA) Extension animal scientist. "Immature bulls chase cows more and spend less time eating."

Parrett also encourages producers to put a heifer with the bull before turning him out with a group to see if he is willing to breed and is functionally able.

Gosey says it is best to get the bull at your place 60 days before the breeding

season. "If this is not possible, buyers should purchase bulls from breeders who do a good job of conditioning their bulls for the breeding season," he explains.

■ Exercise

Gosey suggests managing yearlings before the breeding season on a 10- to 40-acre pasture to increase physical activity. He says it's important for a bull to "harden up" in preparation for the rigors of the breeding season.

Brown says it's important to watch for signs of physical lameness during this period.

■ Nutrition

Hixon cautions producers not to dramatically change a bull's nutrition level. "Keep a young bull on a ration that allows him to gain a couple pounds (lb.) per day," Hixon says. "A bull that loses extreme

amounts of condition is more apt to lose his sex drive, and it can decrease the number of cows he can cover and settle.”

Today most yearling bulls are fed to gain 3-4 lb./day postweaning, usually in a feedyard setting, says Gosey. Because of this, a gradual adjustment of nutrition and exercise is needed before turning out bulls.

“The target gain for yearling bulls should be about 2 pounds per day during the 60 to 90 days before the breeding season begins,” Gosey says. “This level of gain can generally be produced with a daily ration of 30% grain and 70% forage or free-choice grazing plus about 8 pounds of grain.” (See “Bulls Need Year-Round Nutrition,” page 109.)

Brown, who manages the Calhoun (Ga.) bull test, says some breed types might require more grain. “The rule-of-thumb is 1 to 1½% of body weight in order to keep gaining 2 pounds per day,” he explains.

“Most bull test stations and private breeders begin this nutritional adjustment process prior to the sale,” Gosey says. To be sure of the nutrition level, be sure to ask the manager or breeder for a copy of the ration and dry-matter intake levels before taking your new purchase home.

Robert Stewart, UGA Extension animal scientist, has been managing the Tipton bull test for 16 years. Each year he cautions buyers in the sale’s opening ceremonies regarding the management required for performance-tested bulls. “Young bulls need to continue to grow at moderate gain. If you’re going to use the bull right away when you get him home, use him lightly or you can expect a wreck. The bull will melt to nothing, and you’re going to end up being disappointed,” he says.

Stewart and Brown provide buyers with a handout offering tips on how to manage yearling bulls coming off performance tests (see sidebar on page 97).

■ Body condition

Hixon advises producers to manage bulls according to body condition. He says yearling and 2-year-old bulls should have a body condition score (BCS) between 6 and 6.5 (on a 9-point scale) before the breeding season.

“Yearling bulls need to have body condition reserves because they lose considerable amounts of condition during the breeding season,” Hixon says. “The lower a bull’s BCS gets, the greater the chance of infections setting in and affecting fertility.”

Gosey says ideally a yearling bull should weigh 1,100 lb. or more at the start of the breeding season.



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■ Health

To do the job, bulls need to be healthy and ready to perform. Gosey says yearling bulls need the same reproductive vaccinations that breeding females routinely receive, and all bulls need to be treated for internal and external parasites prior to turnout.

Most producers and central bull tests guarantee the bulls for sale have passed a breeding soundness examination (BSE). The exam includes a complete physical, scrotal measurement and semen evaluation. It is a pass-fail test; one bull does not score higher than any other bull. If a bull fails any part of the exam, he fails the entire test.

Gosey says some producers who purchase their bulls three or more months prior to the breeding season prefer to have a second BSE done by a local veterinarian three to four weeks prior to the breeding season.

■ Yearlings vs. 2-year-olds

Some producers prefer purchasing 2-year-old bulls rather than yearlings. They believe the older bulls better fit their environments and management conditions.

If a yearling is developed and managed properly, he can be just as effective as a 2-year-old in the breeding pasture, says Hixon. The only difference from a management standpoint is that a 2-year-old can withstand a slightly longer breeding season.

“By the time a bull is 2 years old, he is approximately 75% of his mature body size and can stand to be kept in the breeding pasture longer,” Hixon explains. In comparison, a yearling is about 60% of his mature body size. He suggests that a yearling be restricted to a 45-day breeding season, 60 days at the longest.

Brown recommends a producer reduce the cow-to-bull ratio with yearling bulls if a longer breeding season is utilized.

■ Environment

Environmental changes — temperature, humidity and altitude — must also be considered. Many producers would argue a bull raised in the North could not survive in the Southeast or Gulf Coast, or vice versa. Commercial Angus

producers Wes Williamson of Okeechobee, Fla., and Joe Jones of Victoria, Texas, disagree.

Williamson Cattle Co., a 2,400-head commercial outfit, has been buying Angus bulls to use in its subtropical environment for more than 30 years. Williamson says for the last eight years he’s been buying Angus bulls from Montana. With proper acclimation, they work for him.

He buys the bulls as yearlings, usually in December-February. In early spring the bulls are shipped to Alabama to the ranch’s heifer-development facility. When the bulls arrive, he slowly graduates them off feed and turns them out on grass. During that first

Selecting and buying herd bulls involve some of the most important decisions a producer will make in a beef operation. The bull contributes one-half of the genetic makeup of his offspring. Because a bull may sire 25-50 or more calves per year, he is the most important individual in the herd. It would seem logical that bulls purchased from central test stations, or from on-the-farm test programs where complete performance records are available, would be in high demand and would attract premium prices.

Purchase price is not the main reason producers cite for not purchasing tested bulls. All too often genetically superior performance-tested bulls sell at bargain prices.

Reasons often given by producers who do not buy performance-tested bulls include, "I bought one of those tested bulls, took him home and a year later he weighed less than when I bought him"; or "I do not know how to feed and care for this young bull just off a postweaning gain test."

The basic purpose of a performance test is to test the genetic potential of the bull in daily gains. Since most bulls are group-fed, the ration must be geared for the highest gains possible. Consequently, most tested bulls need to be put on a diet before breeding — but not a crash diet!

The best practice is to keep them on the same or similar ration as the one to which they are accustomed, but decrease their intake level to 60%-75%.

Rations should be changed slowly. There are certain rumen microbes that help the animal digest grains and a separate group or population that helps digest roughages.

When an animal is on a diet consisting of mostly roughages, those microbes

HOW DO YOU HANDLE A YOUNG BULL COMING OFF A GAIN TEST?



Robert Stewart, manager of the Tipton (Ga.) bull test, says it's ideal for a performance-tested bull to be taken home and fed 5-7 pounds (lb.) of a "bull-test" developing ration until spring grass. He'll then be able to survive on forage.

that digest roughages are in highest concentration. On a high-grain diet, like a bull-test ration, the microbes that utilize grains are dominant.

When the diet changes, the microbe populations must change. The changes in microbial populations are slow; thus any changes in diet should be slow. Help from the microbes to aid in digestion is needed the most on a high-roughage diet.

Most feed stores have a "bull-test" ration that is similar to rations used in tests. The basic ration is a 12%-crude-protein, 17%-crude-fiber ration (see Table 1).

When a bull is taken home, a similar ration should be fed according to the schedule shown in Table 2. Any other corn- or milo-based supplement could be used as the "grain mix" feed. These rations are generally 50%-75% corn or milo with oats, cottonseed meal or soybean meal as the other major ingredients. Put young bulls on good-quality pasture or silage and hay during the laydown process.

Dramatic nutritional changes can have an adverse effect on semen quality and production in addition to disappointing performance. The feeding schedule listed in Table 2 should be used as a basic outline. After the fourth week, continued supplementation will ensure proper development of the young, growing bull.

Several test stations will be conducting sales of performance-tested bulls in the near future. Take advantage of this vast genetic material. Don't let not knowing how to handle the bulls coming off test be an excuse.

— T. Brown,
Extension animal scientist,
University of Georgia

TABLE 1: BASIC BULL-TEST RATION

Ingredient	lb./ton	%
Cracked corn	840	42.0
Cottonseed hulls	519	26.0
Oilseed meal	295	14.7
Ground/rolled oats	220	11.0
Molasses	100	5.0
Feed-grade limestone	14	0.7
Dicalcium phosphate	2	0.1
Trace-mineralized salt	10	0.5
Vitamin A premix	(3 million IU)	

TABLE 2: FEEDING SCHEDULE

Week	Type	% of Body wt.	lb. for 1,000 lb.-bull	lb. for 1,500 lb.-bull
1st	bull test	1.5	15	23
	hay	1.0	10	15
2nd	grain mix	0.5	5	7
	bull test	1.0	10	15
3rd	hay	1.0	10	15
	grain mix	0.5	5	7
4th ^a	bull test	1.0	10	15
	hay	1.5	15	23
	grain mix	0.8	8	12
	hay (pasture)	2.0	20	30

^aContinue this schedule until the end of the breeding season.

summer they are kept on a growing ration before being turned out with the heifers that fall. After the fall breeding season, the coming 2-year-olds are shipped to Florida for the winter and spend the rest of their time there.

Stewart encourages Southeast producers who buy bulls from the Midwest or North to buy in the fall. "If you introduce a bull to this environment in October, he has several

months to adapt to conditions before he is turned out in April," he says. "Most cattle can't adapt if they are turned out and hit head-on with the Southeast's heat, humidity, parasites and insects."

Stewart warns producers to watch imported cattle that have been acclimated during their first breeding season to be sure they are holding up.

Jones, manager of Briggs Ranch, has been

buying Angus bulls for the last 10 years to use on the ranch's replacement heifers. He says it's hard to introduce bulls into south Texas' high-humidity environment in the summer, but buying yearlings in the winter or early spring seems to work. The Angus that work best for him are cleaner-made and slicker-haired.

Gosey says moving bulls to mountainous areas with a drastic change in altitude could affect adaptation and breeding performance. "Breeders in mountain areas are all too aware of brisket disease and are not likely to purchase bulls unadapted to altitude or without tests for Pulmonary Arterial Pressure (PAP)," he explains. "Some cattle are simply genetically incapable of adapting to altitude. For many other situations, the more drastic the move means the more time that should be allowed for adaptation to the new environment."

He reminds producers that checking health regulations should be a standard operating procedure for any bull purchase, especially for long-distance purchases.

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— Jim Gosey

■ **After breeding season**

Don't forget your potential herd sire after the breeding season. He still needs to be treated with care.

"The care of yearling bulls after the end of the breeding season is critical to the longevity of the bull," Gosey says. "Young bulls should gain about 2 pounds per day after the breeding season in order to recoup breeding-season weight loss and gain about 300 to 500 pounds total by the beginning of their second breeding season."

Following these simple suggestions should help ensure the longevity and performance of your new herd sire investment.

