



A Reasoned Approach

Bull-development program allows bulls to show what their calves can achieve in the feedlot while still emphasizing the efficiency necessary for the cow herd.

by **Troy Smith**, field editor

Opinions vary among seedstock breeders regarding the best way to manage postweaning growth and development of bulls. They have their reasons. Usually, they are related to breeder perceptions of customer needs and wants. When catering to producers who raise forage-finished beef, for example, it makes sense to develop bulls on a diet that is wholly forage. Since Schurrtop Angus bull buyers' calves typically flow through grain-fed beef marketing channels, brothers Marty and Ryan Schurr believe their bull-development diet should include grain.

"A big majority of calves raised by our customers will go to a feedlot and be finished on a high-starch diet — everything but heifers that are retained for breeding. So, we think we need to develop our bulls on a diet that contains some starch and allows the bulls to express their genetic potential for growth and performance. Those are things our buyers want bulls to transmit to their calves," explains Marty.

"Our bull-development ration is nothing like a finishing ration, and the bulls are [a] long way from fat," adds Ryan. "Still,

putting the bulls on a gain test lets us see the differences in their individual potential. That's valuable to our customers."

The way bulls are developed is just one aspect of a reasoned approach to managing Schurrtop Angus and Charolais, a diversified family business located in southwestern Nebraska. Both Marty and Ryan returned to the operation after attending Colorado State University. The brothers currently share management responsibility for multiple enterprises, including production of breeding bulls representing two breeds, as well as cattle feeding and farming. They are sons of John Schurr, who, along with his brother Jerry,

entered the registered-Angus business in 1962, near their hometown of Farnam, Neb.

Value of RFI data

Through the years, the Angus herd's genetic progress has been driven by data accumulated through the Angus Herd Improvement Records (AHIR®) program and many years of testing their bulls' progeny for performance and carcass characteristics. The Schurr family retains ownership of home-raised steers and heifers not saved for breeding, and markets the finished animals on a grid that rewards carcass merit. They also buy and feed out large numbers of their bull customers' calves, collecting both feedlot and carcass data.

The objective is to produce cattle that will enhance customer profitability. The Schurrs believe the greatest profit potential exists in cattle that grow rapidly until they reach 13-14 months of age. Their chosen cattle "kind" includes high-performance females of

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► Bull calves are developed at the Schurrs' Maywood place, located some 30 miles west of Farnam, Neb. The country there is creased by crooked canyons, and the bull pens are designed to take advantage of the natural terrain.

CONTINUED ON PAGE 160

A Reasoned Approach CONTINUED FROM PAGE 158

moderate mature size and steermates capable of growing big in the feedyard and posting heavy payweights. Finished cattle should be capable of earning premiums for both carcass quality and yield grade.

For more than 25 years, the Schurrs sought to measure their cattle against those of other breeds and breeders. Schurrtop sire groups consistently ranked high among performance test entries at the Great Western Beef Expo, formerly hosted in Sterling, Colo. More recently, Schurr cattle have excelled for average daily gain, feed efficiency, carcass merit and profitability when tested against entries at the Garden City, Kan.-based Beef Empire Days.

“We believe in the value of data for evaluating sires — ultrasound and real carcass data, as well as gain and feed-efficiency data,” says Marty. “Now, all of our sires and progeny we test are evaluated [for feed efficiency] using RFI (residual feed intake). We believe it can be used to select (simultaneously) for cattle that will perform efficiently in the feedlot on a high-grain ration, or as breeding animals that will be efficient when maintained on forages.”

In an era of high feed costs, feed efficiency is a big deal. However, when the traditional measure of feed efficiency in the feedlot,



► Brothers Ryan (left) and Marty Schurr strive to produce bulls that will keep their commercial cattlemen profitable. Says Marty, “If you forget that, they won’t come back.”

feed conversion ratio, is applied to genetic selection, it leads to larger mature size. Larger animals may have greater maintenance requirements. Feed efficiency can be measured independently of body weight, average daily

gain and fat composition when using RFI.

RFI represents the difference between the expected intake of an animal based on its body size, body composition and growth rate, and the animal’s actual feed intake. Low-RFI

cattle have lower maintenance requirements and may exhibit as much or more growth while consuming less feed than high-RFI cattle. Geneticists consider RFI to be 30%-40% heritable — a range of heritability similar to that of weaning weight and yearling weight — so progeny of low-RFI sires should be more efficient in the feedlot.

“In our experience, selection for low-RFI heifers also results in cows that are more efficient on a total forage diet,” adds Ryan. “There is research that supports it, too.”

That research includes a University of Florida study that suggests selection for low RFI can improve mature cow efficiency without negatively affecting other traits. The study evaluated replacement heifers for feed efficiency during their development phase. The same females were evaluated again as 3-year-olds that had delivered a second calf while they consumed a diet consisting of forage. The cows that had been most efficient as heifers (low-RFI) exhibited significantly lower intake than cows that had been high-RFI heifers, consuming 4.6 pounds (lb.) less feed per day without compromising body condition, milk production or reproductive performance.

The Schurrs believe this kind of evidence refutes the notion that selection pressure aimed at producing steers that are efficient in the feedlot may not produce forage-efficient females for the breeding herd. For them, selection for low-RFI cattle works well for both purposes.

“We’ve selected for a type of cattle with muscle that fits an environment where feed resources are sometimes limited. We’ve experienced three years of pretty serious drought, and the cattle came through surprisingly well. Low-RFI [animals] adapt better to tough conditions,” says Marty.

The Schurr production system requires that breeding females be managed much the same as their customers’ herds. Heifers are developed on dormant pasture, where they are limit-fed a ration consisting of harvested forage and distillers’ grains. The development program is challenging enough that the Schurrs expect some heifers to fail. Those that successfully transition to the cow herd spend the remainder of their productive lives grazing native range during the summer months and cornstalks in the winter. Winter grazing is supplemented with distillers’ grains, and hay is fed when conditions present a need.

Developed for customers

Bull calves are developed at the Schurrs’ Maywood place, located some 30 miles west

of Farnam. The country there is creased by crooked canyons, and the bull pens are designed to take advantage of the natural terrain. Feedbunks are placed on level ground near a canyon rim, but most of the pens’ surfaces fall away along relatively steep slopes with southern exposure. The sloping pens promote exercise, and provide protection from wind.

“Drainage is excellent. There’s hardly any place for water to pond, so bulls nearly always can find a dry place to lie down. They also seem to ride one another less than in a flat pen. We think it all works together to enhance the overall health, fertility and physical soundness of the bulls,” explains Ryan.

As stated previously, the Schurrs believe in developing their bulls on a ration that includes a moderate amount of corn. Because all but a small percentage of the bulls’ future progeny will be finished on grain, never giving bulls a chance to demonstrate a response to starch would be a disservice to the bulls’ buyers.

“We feed the bulls a total mixed ration built around mostly low-quality roughages. Those can range from straw to alfalfa, depending on cost. The ration also contains distillers’ grains, a little liquid protein and vitamin supplement, and either (dry) rolled corn or high-moisture corn,” explains Marty.

Bulls are acclimated to a diet containing grain before advancing to the gain test ration. It is balanced to achieve average daily gains of 3.2 lb. per day, although most bulls post gains exceeding 4 lb. and some gain more than 5. Still, the ration is never less than 50% roughage. At its maximum inclusion rate, bulls consume about 12 lb. per day of corn. Following the 100-day gain test period, bulls are transitioned to a forage-based diet.

The Schurrs are careful to avoid feeding too much grain, which can be detrimental to bull soundness, fertility and digestive system function. Feeding an adequate amount, appropriately, allows the bulls to exhibit differences, not only in feeding performance, but the carcass traits that the Schurrs measure using ultrasound technology.

“We think it’s important to let the bulls show what they can do. The gain test exposes important differences. And the ability to gain, along with feed efficiency, is an important driver of profitability,” states Ryan.

“Dad told us a long time ago that we have to produce bulls that will help commercial cattlemen be profitable,” Marty adds. “If you forget that, they won’t come back.”



Editor’s Note: *Troy Smith is a freelance writer and cattleman from Sargent, Neb.*