An excellent udder means the calf is able to nurse shortly after birth. All four quarters are sound. Teats are no larger than your thumb. The teats are clear of fecal mud and mastitis, and the cow has abundant colostrum. The calf is full of milk, and its mother is protecting it.

UDDER ECONOMICS

Yes, udder quality has value to Angus breeders.

Story & photos by Joann Pipkin

eteran cattleman Tim Ohlde doesn't want to cull a cow from the herd because of a bad udder. He wants to cull her because she got too old.

For more than 40 years, the north-central Kansas Angus breeder has used an udder scoring system to help him select herd replacements. The practice is one that not only helps breed longevity in his herd, but also keeps bull customers coming back to his female-focused program.

Poor udder and teat conformation have been thought to decrease profitability due to decreased calf weaning weight, increased incidence of mastitis and labor, and decreased cow longevity. However, a recently released University of Nebraska– Lincoln (UNL) study suggests cows with less-desirable udder structure may not have a negative effect on calf preweaning growth and performance after all.

In the end, udder quality matters to Angus breeders like Ohlde. He isn't alone in his thinking.

Beyond weaning weight

Like Ohlde, J. David Nichols also employs an udder scoring system to help identify highquality, productive females in his Bridgewater, Iowa, Angus operation.

Home to some 1,400 brood cows that are the dams of bulls and females the farm markets each year, the Nichols operation has scored udders on cows since 1962. Their scoring system includes udder support, teat size and mothering ability. The all-inclusive score, Nichols says, is highly correlated to the calf nursing early and often, regardless of the circumstances.

Every cow has her udder scored the day she calves, Nichols says. "The scoring must be done and recorded as soon as possible, before or shortly after the calf nurses."

For Nichols, a sensible scoring system and the courage to cull freeloaders and udder-impaired cows increase not only calf weight and profit in an operation, but also ease the stress load on both the cattleman and his wife when checking and tagging calves.

He explains his udder scoring system as follows:

 Excellent. The calf is able to nurse shortly after birth. All four quarters are sound. Teats are no larger than your thumb. The teats are clear of fecal mud and mastitis, and the cow has abundant colostrum. The calf is full of milk, and its mother is protecting it.

- 2. Good. All indicators are good. No need to check the pair later.
- **3.** Average. About 66% of Nichols' cows scores are graded 3.
- 4. Fair. This cow is on Nichols' "watch" list. Check back on her as her calf may not have nursed.
- 5. Bad. This cow's calf required human assistance to get her calf on her teats. She is put on a "hit list." The cow is always culled soon after her calf is weaned. Whether male or female, her calves will not be kept for herd replacements or be sold to a customer.

Missouri Angus breeder Deb Thummel always includes udder quality on her checklist, as well.

"We look at the udders of dams and granddams if possible before bringing a bull into our AI (artificial insemination) or ET (embryo transfer) program," Thummel says. "Cows with problem udders are culled."

Having used visual appraisal of udder quality as a selection tool for decades, Thummel says they also consider dam longevity in making breeding decisions.

"A dead calf doesn't gain much," she explains. "So, if teats are too large or odd-shaped and a calf can't get started on its own, and the operator misses this detail, then the impact of udder quality is quite substantial. Also, productivity is lost when calves have to be helped to start nursing, period."

A selection tool

While teat and udder quality are important traits in beef cattle production, it's often difficult to select for because evaluating udders in weaned heifer calves is not an easy task.

"The importance of udder quality is primarily cow longevity," says Darrh Bullock, extension professor of beef cattle genetics at the University of Kentucky. "Cows that can maintain udder quality have a greater likelihood of staying in the herd for a longer period of time."

Creating longevity in his cow herd is the ultimate goal for Ohlde. "We love for cows to go to 12 to 15 years of age," he says.

The Kansas Angus breeder learned a selection program in the 1970s in Europe, which actually measured 40 udder traits. Of those, Ohlde now considers front and rear attachments, as well as teat length, teat types, placement and levelness, and suspension when evaluating udders.

"We actually score our female udders the day they're born on three or four traits, and it's extremely accurate," he explains.

Striving for a perfect udder with little teats helps alleviate nursing issues with calves and works handin-hand with Ohlde's low-input management style.

The technique works well for Ohlde's customers, too, as he says many of them are large ranches with thousands of cows that don't have extra time to spend with nursing calves.

"Calves can adequately get all of the milk they want each time," Ohlde says. "They're not fumbling around with big teats, and they don't get the scours as bad as when they find the extra teats later and get an overloaded mouth."

Replacement expense

While some research findings have reported calves suckling dams with only one functional teat had similar growth and performance as compared to calves suckling dams with all functional teats, the UNL study evaluated the effect of beef cow udder score on 812 cows from 2013 through 2017 within March and May calving seasons on pre- and postweaning calf performance.

Cows in the study identified as having bad udders were on average 5 years old, whereas cows labeled with good udders averaged 4 years old. According to the report, as cows age, the udder's suspensory ligament can deteriorate, resulting in more outward facing teats and increasing the likelihood of a cow being classified with bad udder conformation.

Steer calves from cows with bad udders and cows with good udders

had similar feedyard entry body weight, final feedyard body weight, dry-matter intake (DMI), average daily gain (ADG) and feed-togain ratio, the report said.

Only a slight difference was seen in carcass performance. Steers that nursed cows with good udders had greater hot carcass weights and backfat at harvest than their counterparts from cows

with bad udders.

The study concluded that for this crossbred research herd in the Sandhills of Nebraska, udder score at the time of calving did not have a large impact on preweaning calf growth performance, despite the influence in carcass weight at harvest. Considering cow herd management, the study indicates removing cows from the herd only for poor udder conformation may not always be justified because of the significant expense in replacing a cow in the herd.

Udder economics

While Brooke Miller, Ginger Hill Angus, Washington, Va., has been visually evaluating udder quality in his herd ever since he can remember, he's not certain cows with perfect udders have any better calf performance than cows with average udders or slightlybelow-average udders.

"But, if the cow's udder is bad enough where something abnormal happens, the udder gets infection, mastitis, and the calf can't nurse it, then yes, it's going to have significant impact on calf performance," Miller says. For the commercial cattleman, Miller contends a functional udder that works or doesn't require any extra help or maintenance on behalf of the producer is just as good as a picture-perfect one when it comes to calf performance.

Still, Bullock maintains the



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economic benefits of udder quality are real.

"Calves that get colostrum within the first six hours of birth have better health and survivability, and those are important economic factors," he says. "Also, if females have udder breakdown at early ages that require culling, this affects their lifetime productivity and culling or replacement rates, both resulting in economic losses."

Though it is difficult to place a dollar value on udder quality, Kansas State University Professor and Cow-Calf Extension Specialist Bob Weaber says that in herds with a large number of poor-uddered cows that incur a significant amount of additional labor to assist newborn calves, the economic effect might be substantial in terms of additional labor cost, poor calf health and decreased calf weights.

"In herds with 'adequate' udder quality, where little or no additional costs are incurred, the economic advantage of selecting for more udder quality may be near zero or negative if we divert selection pressure from traits with real economic importance," Weaber explains.

Finding balance

Thummel takes pride in both the phenotype and genotype of her cows and says a good udder on a cow simply completes that picture.

"We also aren't getting any younger; labor is always an issue, and any time you take

getting a calf to nurse is taking time away from something else," she says.

Udder quality is visually appealing for Miller, too. "You have more people come to your herd and like your herd if your cows have nice udders," he says. "Then, you get a reputation as having cattle with good udders. It's easier to sell cattle that way. That's for sure."

Darrh y of lihood While Ohlde values udder quality in terms of both labor and cow longevity, he recognizes the ultimate price of keeping a cow

with an undesirable udder. "It's costly," Ohlde says. "So, it's extremely important, probably even more so for our customers. We get a lot of people that say, [your cattle] have improved our udders so much. For us, it's a marketing tool."

It's not uncommon for seedstock producers to swing the pendulum to single-trait selection. In doing so, a cow that has a picture-perfect udder is likely more salable than one with a less-desirable udder.

"But, to the commercial cow-calf guy, a functional udder that works, that doesn't need any extra help or maintenance is just as good as a picture-perfect one as far as calf performance goes," Miller says.

At the end of the day, though, these longtime Angus breeders say rewards are found in cows with good-quality udders.

As Nichols puts it, "Weaning weight is not the only indicator of profit or dollars or labor inputs."

Editor's note: Joann Pipkin is a freelance writer and cattlewoman from Republic, Mo.