

A North Carolina breeder's low-input system creates functional cows that can perform without being pampered.

Story & photos by Becky Mills

• o consistently produce one Pathfinder cow after another, you'd think Bruce Shankle's herd would enjoy special treatment. Wrong. These girls make do with the equivalent of coach class, Motel 6 and an occasional pack of crackers from the Zippy Mart.

Take Shankle's forage program — not that you'd want it. "There is rock 6 inches (in.) under this ground," says the Anson County, N.C., producer. "But, we can take chicken litter and put it on top of that rock, and it will grow grass."

Of course, that grass is not exactly at the top of anyone's preferred list. It's a 35-yearold stand of fescue, 70% of which is fungusinfected. But Shankle doesn't provide supplement to his 100-cow herd to make up for the lower-quality forage. "I use feed as a bribe," he says. "It cuts labor down to nothing."

A prime example is using feed to get cows up for his artificial insemination (AI) program. "We can get them in and get them bred without getting them upset," he explains. "It doesn't take 50 cows long to eat a bag of feed, but if they are too slow to come up, they are too slow to get bred [by] AI."

No time to pamper

Shankle's low-input, low-labor system isn't due to lack of motivation. He is an international livestock-marketing specialist

► Above: Bruce Shankle makes his cows adapt to his low-input management style. He doesn't provide supplement to his 100-cow herd to make up for the fungus-infected fescue they graze. He uses feed only as a bribe to ease labor requirements.

for the North Carolina Department of Agriculture and his Raleigh office is a good two hours from his farm. Not that he sees his office much more than he sees his cows. He escorts foreign buyers around the state, does the massive amounts of paperwork involved with exporting livestock to other countries, and baby-sits shipments of beef and dairy cattle — as well as sheep, goats, hogs and horses.

Then there is fair season. From the last week of August until the third weekend in October, he assists with the livestock shows and exhibitions at North Carolina fairs.

"I come home to fill up the bull feeders," he says.

By the way, he doesn't hire a farm hand. "I manage all my cows as a one-man operation," Shankle says. "My son helps me sporadically." His wife, Carla, also throws two or three buckets of feed to the bulls when she gets home from work.

"I do things that are easy for me to do," he states. "The cows adapt."

So, how does it get done?

Management strategies

For starters, he fertilizes his pastures with poultry litter. From October through January, he custom-hires between 2.5 and 5 tons/acre spread on his 330 acres of owned and rented pasture. The cost is \$27-\$30/ton delivered. That's it for fertilizer, except for one of his leased farms. The owners don't want poultry litter on their land, so the fertilizer truck makes a stop there. He mows that pasture, unlike the other four farms.

He also has 12 acres he can plant in temporary grazing — millet and crabgrass in the summer and oats, rye and redtop clover in the winter. It is quick and easy he harrows it, spreads the seed with a cyclone seeder, then harrows it again.

That 12 acres is mostly reserved for his growing bull calves. The rest of the ground, on farms ranging from 30 to 250 acres, isn't fit for anything but permanent pasture.

In May, rather than mowing pastures, he puts up 800 to 1,000 round bales of hay. "I probably feed more hay than a lot of people, but I do it out of convenience," he explains.

The hay is wrapped in twine, and he sets the rolls along the edges of his calving pastures. The cows and heifers eat the hay as they want it. The rest he puts out, 50-60 rolls at a time, on weekends.

"I know better management than what I practice," he remarks. "I used to go to South America two or three times a year. I picked up a lot of my erratic behavior from the South Americans. They make do with what they have. If a fence post breaks, they prop it up and go on until they can replace it."

Time for attention

There are definite exceptions to his hands-off approach. "During calving and breeding, I'm here every day. I check them twice to three or four times a day. I check them at 3 or 4 a.m. if I have to. I've got a year invested in that calf. I don't want to lose him. Plus, there is that anticipation."

Cows and heifers calve in cleared pastures so he can find them at night. These same pastures stay empty from the end of breeding season, usually in February or March, until he moves them back in October, a month before calving. That way the pastures are also clean.

Then the checking starts. "With mature cows, a lost calf is a cull cow. I hate to lose a cow because I was slack. If she fails on her part, she is gone. If she fails on my part, I feel bad, but she's gone anyway."

He also weighs, tags and tattoos calves at birth. "If she is a real good cow and is real bad [tempered] when she calves, she stays," he says. "If she is not a real good cow and is real bad when she calves, she leaves."

Shankle keeps up his night and day checks from the start of calving season, around Nov. 7 or 8, until Jan. 1, when both cows and heifers are normally through calving.

The next labor-intensive time is breeding — or at least breeding for the mature cows. Shankle lets the bulls do the work for the yearling heifers.

"Contrary to what AI companies tell you, I get a lot tighter grouping with a bull than when I synchronize them and miss some of them," he says. "I haven't had that good a luck with little heifers. I only get 40% to 60% conception rates on them. That throws the other 50% a heat cycle behind."

He leaves the bull with the heifers for three heat cycles, or 60-65 days.

Because of his limited time, he only breeds one group of cows by AI. "I can breed a group at one farm real good but not on two or more farms," he explains.

He does all the AI breeding himself. "If I go to the trouble of getting her in heat and buying semen, I don't trust her with anybody else." He starts the last Thursday in January and checks for natural heat until the following Tuesday. On Wednesday he gives an injection of prostaglandin to any cow he hasn't already seen in heat and bred.

"Usually there are none in heat on Thursday, there'll be a few on Friday and on Friday night, and Saturday they cycle heavy." Then, he says, they taper off Sunday and Monday.

The program definitely works for Shankle. "At least 95% will cycle, and I usually hit an 87% conception rate on the 50 or 60 that do come in heat." The following Monday, the bulls go in and stay 30-40 days.



▶ If Bruce Shankle's heifers don't calve between 22 and 26 months of age, they go to the feedlot.

No frills bull merchandising

With Bruce Shankle's low-input approach to his cow herd, it should come as no surprise his bulls are developed and marketed with a bare-bones approach, too.

He starts in May by creep-feeding the bull calves with whole oats. By then, the fescue is beginning to toughen up and the farmers in the area are starting to harvest their oats, so he just pulls his feeders up to their bins and fills them up.

After weaning, the bulls stay on whole oats until he gets their yearling weights, then he starts hand-feeding them. "That gentles them and slicks them off," he explains.

As for merchandising the 25-30 bull calves he produces a year, usually five go to the Union County performance tested bull sale. The rest are sold by private treaty off his farm.

"This is my sale barn," Shankle jokes as he walks through the rough fescue pasture that holds his yearling bulls.

Actually, for many of the calves, the sale takes place while they are still with their dams. "Some people pick out their bulls as calves, and we keep them until they are yearlings, but we price them as yearlings," he explains.

Western Kentucky University animal scientist Nevil Speer says he likes that approach. "The customers really get to tie in the maternal side," he explains.

"It pushes the purebred guys to emphasize the convenience traits — udder quality and feet," he continues.

He warns, however, "There is some risk. At times, the calves really look good but then fail to develop as expected."

Still, he says, "Generally, the purebred breeders who sell this way are very good at establishing a long-term relationship with their customers. There is a high level of trust. They take the attitude they are going to be selling to the same customers in 20 years."

Shankle agrees. "My customer base is close to home," he says. "They know me." In return, he knows them and their needs. "Some are one-bull herds and need a low-

birth-weight bull. Some have crossbred cows and want growth."

After calving and during breeding season, Shankle does soften up and give the cows limited grain. If drought hits, he'll dole out a few protein cubes.

Perfect fit

So, just what kind of semen and bulls does Shankle use to produce these low-input cows? Not necessarily the most popular ones.

"I use some off-the-wall bulls if I like the numbers and like the bulls," he says. "I'll buy semen out of unproven sires if they perform well. If it works, good. If not, the calves go to the feeder-calf sale." Shankle says he considers himself a radical in the North Carolina association. "I breed for cows that work here," he says. "When everybody else was breeding for tall cows, I bred for thick ones. Then, when they went to short, dumpy bulls, I used growth bulls."

Shankle says he can get away with his renegade ways because of his customers. "Ninety percent of the people who buy bulls from me are not pedigree-conscious; they are pounds-conscious. They sell through feeder-calf sales. They want a six-frame, thick-muscled calf."

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► After 20 years of careful selection and ruthless culling, Bruce Shankle says, "My purebred cows are the same kind of cows my commercial customers have."

Along with the growth and muscling, he also demands the bulls have balanced carcass traits and positive expected progeny differences (EPDs) for scrotal circumference. In turn, he expects their bull calves to grow and show muscle.

"I have no reservations about castrating a bull calf," he says. "I don't care how he is bred. If I don't like him, I cut him." If a bull calf is born after mid-December, whether Shankle likes him or not, he becomes a steer.

Although Shankle does start creepfeeding the bulls and steers whole oats in May, their 205-day weights still prove his insistence on growth. His 2001 bulls weighed in at 726 lb., while the steers averaged 667 lb.

Heifer development

On the female side, he chooses replacement heifers with good udders and EPDs for milk. Or at least he does after his initial game of keep or cull.

"It is real complicated," he jokes. "A week after I wean them, I sit on the feed truck and write down the numbers of the heifers I don't like." His bad list includes heifers that don't have acceptable growth or conformation, haven't shed out or are flighty.

Never a dull moment

"If it can go wrong, it will," Bruce Shankle says about his duties as international livestock marketing specialist for the North Carolina Department of Agriculture. "From blown out tires on the truck to the quarantine station to being ready to load animals on an airplane and its not showing up."

On one flight, the hydraulic lines on the plane door burst and sprayed Shankle and two pallets of cattle with hydraulic fluid. "That was a tense situation. Hydraulic fluid is very volatile," he explains. "I was ready to jump."

The fluid got in the eyes of the calves. Their eyes clouded up despite Shankle's washing them out, but in a week he said they had their sight back.

In Puerto Rico, a plane got too hot on the runway and he had to hold the doors open as it took off. "I don't want to do that again. I've had enough excitement."

Shankle says dairy cattle make up the bulk of the 12,000 to 15,000 head of livestock he helps export every year, but they do ship some Angus cattle to Mexico and Canada. "We had some interest from South America and Ecuador, which is unusual. We usually don't ship black cattle to the tropics."

Shankle says that if a producer is contacted by a foreign buyer and wants to export cattle, the first thing he needs to do is get a copy of the health protocol from the country where the cattle will be going.

"Don't do anything until you get that protocol," he emphasizes. "International health certificates are a bugger. They are always country-specific."

For example, if a country requires a negative test for leptospirosis (lepto), you don't want to vaccinate for lepto. And Canada won't accept the widely used RB strain of brucellosis (Bang's disease) vaccine. They require the old Strain 19.

Also, be prepared for lots and lots of paperwork. "Mexico is really simple," he says. "All they need is a TB (tuberculosis) test, a brucellosis test, and the cattle have to be properly identified and their health status has to be okay. But Venezuela is a different matter. We are shipping a load of sheep and goats to Venezuela. There are 13 pages to the protocol. The paper weighs more than the goats." "Then I go in the house and look at the records and either cry or rejoice," he says.

During the first selection, the heifers' growth has to come from their mama's milk or the fungus-infected fescue, since they've only been on a weaning ration for a week.

The first cut goes to the feeder-calf sale or is sold for commercial heifers. He'll continue to sell heifers by private treaty up to breeding, but then they are his. "I don't think but about half of the heifers are going to make good purebred cows. The trouble is, I don't know which half."

From weaning until breeding, they are on a mix of whole oats and wheat midlings or soy hulls and fescue hay, plus pasture. If the grass is growing, he'll go to an every-otherday feeding of 2 or 3 lb. of the oats mix.

He expects to be paid back, though. "There is no reason for a heifer not to get pregnant. An Angus heifer that can't get pregnant when she is 14 or 15 months old needs to be in a feedlot."

When he is culling cows, reproduction is first and bad udders next. "If I have to milk her, she leaves," he says.

Now, 20 years after he started with his base herd of Emulous-Wye cows, and after 20 years of careful selection and ruthless culling, Shankle says, "My purebred cows are the same kind of cows my commercial customers have."

He's also reached the point where every female on the place was born there, which suits him just fine. "You can't buy a cow that will perform on Anson County fescue," he maintains.

University of Nebraska beef cattle specialist Jim Gosey says Shackle's selection for growth and adaptability are admirable. "The fescue is a major test in itself," he says. "Selecting for growth will definitely sort out the ones that can't handle his environment and management. He is identifying the better critters and also selecting for the ones that can handle his management."

Besides selecting for growth, Gosey says culling for reproduction is another way to identify the cattle that can make it under a producer's particular environment. "Shorten up the breeding season to around 50 days, two heat cycles plus a few days," he advises. "That really puts them to the test."

He emphasizes, "It is having the courage to apply the selection."

Shankle definitely has that courage. "Some work. Some don't," he says. "I have to accept it."