

Nutrition and Management of Heifers and Young Cows at Rock Hollow Farm

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We ranch in north-central Florida, about 20 miles straight up Highway 441 from where we are meeting today. It is basically a bahiagrass operation utilizing winter annuals that are sod-seeded or grown after crop farming. We have never been able to avoid the necessity of feeding hay; however, in recent years, we have lessened our dependence on it. We regard the whole business of harvesting, storing, and feeding hay as one of the most limiting factors in profitable beef cattle production in our area.

We have come to realize the importance of nutrition and management of heifers and young cows to the sustainability of an operation. If you err on the side of too much, or too many inputs, you automatically relegate yourself to the status of high-cost producer; but if you do not provide enough, you will not harvest enough. As an example, I used to take pride in our operation's high conception and weaning rates. Now I ask *At what cost?* Paul Genho once told me that he needed cull-cow revenue from 12 to 13% of his cow herd each year to meet his cash flow projections. In his case—which is very likely similar to yours and mine—he felt that if he got much more than an 87 to 88% pregnancy rate, he was probably feeding his cows too much. I have come to appreciate that rationale.

In our operation, heifers are 2 years of age when they first calve. Calving at 2 versus 3 years is not the topic at hand; I'll just say that the decision of when to calve heifers is not as much of a "no-brainer" as I once thought, but is unique to each operation. For the past 2 years we have used estrous synchronization on our heifers. Last year we bred using AI over a 3-day period, and this

year over a 25-day period; we then exposed the heifers to clean-up bulls for the remainder of a 45-day period. Last year our pregnancy rate on the heifers was 70%; this year it will be much better. We know it will be much better because this year a much higher percentage of our replacements were born in the first 30 days of calving. Two years ago we made the decision to significantly reduce our calving season, but there is a lag time before the benefits of such an action start to accrue.

For the past 2 years, the breeding season on our yearling heifers has been from the first of February to the middle of March, and breeding season on the cow herd has been from the middle of February to the middle of April. This puts our heifers beginning to calve 2 weeks ahead of the cow herd, and finishing 1 month ahead of the cow herd. The result has been more fertile first-calf heifers. These we allow a post-calving period of 110+ days before expecting them to rebreed; this ensures the heifers will remain early calvers—which is what we want.

Together with our usual practice of observing and recording natural breeding activity, our utilization of AI has reaped an added benefit: Knowing exact breeding dates has enabled us to monitor gestation lengths on a significant number of our calves. We are utilizing some Continental breeding and some Brahman breeding in our herd. Both types are known to have longer gestation periods. (We have had instances of calves born after >300-day gestations.) I think we can agree that, if a cow has to wait an extra 3 weeks to calve in a herd with a short controlled breeding season, she is at a distinct disadvantage in trying

to remain an early calver. For now, we are limiting cattle with longer gestation-length potential to the first half of the breeding season. Since some breed associations are making this type of information available on their cattle, and as we see a greater Continental influence in breeding programs, I suspect there will be more demand for such data.

As far as nutrition is concerned, we calve mid-November to mid-January. We take a weaning weight on the calves mid-July, at which time we expect our keeper heifers to weigh approximately 550 lb. We actually wean the calves mid-to-late August. They are in the weaning pens 4 to 5 days. While there, they receive all they will eat of the best hay we have and as much ground soyhull as they will eat. When they come out of the pens, they go on the lushest bahiagrass (if you can call any bahiagrass pasture “lush”) and continue to receive hay and 6 lb/hd/day ground soyhulls. Almost all the hay we make is either bahiagrass or common bermudagrass so they don’t eat much, but we feel it is a rumen conditioner and helps them adapt to being total foragers as quickly as possible. Additionally, the fields where we have just made hay, which have new growth, are the fields where we graze them.

There is a period of 150+ days from when we take the weaning weight, in mid-July, to when we take a yearling weight in mid-December. We want the heifers to gain about 1 lb/hd/day during this period, and the program described will do just that. This year was particularly good because we started grazing the heifers in early December on sod-seeded fields and were able to discontinue the soyhulls. Now we have a heifer that is about 700 lb by the first of the year and heavier than that at breeding. This 150-day period is an important time and requires much resourcefulness. It comes at a time when our forage quality is the lowest and there aren’t a lot of options. Many people—

particularly those to the south who have better fall pastures—choose to leave calves on the cow longer. But whatever way you can get an 8-month-old calf to a 14-month-old yearling the cheapest (and at the necessary weight and condition) is the “best” way. If you cannot do this economically, you probably should reconsider calving at 2 years of age.

I would like to mention in passing our strategy with growth implants. We work our calves in mid-April at 3 to 5 months of age. All calves are implanted at this time. After a discussion I had with Ralph Sexton, we first implanted our potential replacement heifer calves in 1992. Since then we have experienced significantly less calving difficulty. Research indicates increased pelvic size by at least 2 years of age in implanted females, and we are believers in this practice.

From breeding to calving is a less challenging time for us. We have pretty good feed conditions February through March, and in early April. By then, the herd is bred and also assimilating rough-ages pretty well. We have not found it particularly difficult to get to 1,000 lb and body condition score 5 at calving. After calving, the first-calf heifer gets the best nutrition available on the place.

Two other points in closing: First, we have encountered some cattle with higher growth requirements than we could provide for economically. (Again, the critical period for us has been the 150-day post-weaning period.) These cattle did not gain well and, at 1 year of age, wound up with maybe a little more frame, but not enough weight or body condition to have a good chance of becoming pregnant quickly. A few Beef Cattle Short Courses ago, Dr. Don Hargrove gave a valuable presentation on the trade-offs which must be made between the reproductive and growth segments of our industry. For us, this has meant staying moderate within the breeds we utilize to

meet our reproductive needs, and taking advantage of hybrid vigor when crossbreeding to satisfy industry growth requirements.

The second closing point in discussion of the management of heifers and young cows is *social interaction*: When do we mix the young cows into the main cow herd? How many different management groups can we effectively support? Each year may be different, depending heavily on weather, climate, etc. In general, I believe the longer you can keep a contemporary group of cattle separate, the better off you probably are. Each group already has its “pecking order” established. When you mix previously separated cattle together, they have to establish a new order. When the time comes to mix, I like to do it when the cattle are already distracted by other things. Weaning is a good time to mix because cows are distracted by the loss of their calf. This year, we mixed our 2-year-old first-calvers with our 3-year-old second-calvers when we started grazing in December. In the first place, their calves were young and the

mothers were busy tending to them. Secondly, the one thing they *didn't* have to fight over was who got that one blade of grass: there was enough for all. Our feeling is that, by being aware of social interaction among animals and by planning management changes with this in mind, we ought to be able to keep stress to a minimum.

We are a relatively small operation. Many of the practices we employ might not work on a larger scale or at a different location. Each operation—even if it is just down the road—has its own set of unique circumstances that sets it apart. By gathering and interacting, we frequently discover solutions on one operation that we can apply, at least in part, to our own operation. I think that's why we're here today.

I appreciate being included on this panel of successful operators. Being at the doorstep of the University of Florida—and being able to access the knowledge and technology here—has been a great resource for us.

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