Managing 2-Year-Olds

Steps to help keep young cows in your herd.

by ***Heather Smith Thomas***

Just like with a toddler, the "terrible 2s" is a young cow's toughest time. She's nursing her first calf and still growing, and she needs enough nutrition and body condition to cycle on schedule after calving. If all these needs are not met, she may end up open or calving late the next year.

It can often be a challenge to get young cows rebred without losing ground in their calving schedule. Two-year-olds and some 3-year-olds need a little more care and management than mature cows. Experience proves a 2-year-old is the most valuable and expensive animal in the herd; she has not yet generated any income, yet a lot of money has been invested in her. So if she fails to stay in the herd, this is a significant financial loss. It makes sense to invest a little more management to get her rebred than to start over with another heifer. As one veterinarian once said, "If a yearling heifer comes up open, it's generally her fault (genetics for fertility); if a 2-year-old comes up open, it's your fault (management)."

focus on *females*

Young cows need a higher plane of nutrition than mature cows. They are lactating and growing, so rebreeding is the body's lowest priority. Only after she reaches her potential for milk production and meets her body requirements for maintenance and growth will a young cow channel energy into producing the hormones necessary for reproduction. Reproduction is a luxury that only occurs when all other body needs are met.

The 2-year-old year is especially challenging because this is the age a heifer is shedding her baby teeth and the permanent teeth are coming in. She may not be eating quite as well as normal due to some mouth discomfort. And if she is lactating, she may rob body fat to keep up her milk production. A young cow losing weight will generally not come into heat.

A Hereford breeder's tactics

Greg Shaw, Shaw Cattle Co., raises purebred Herefords near Caldwell, Idaho. The Shaw program greatly utilizes artificial insemination (AI).

"We breed our heifers to start calving two weeks before the cow herd," Shaw says. "This is probably the first management tactic we use to give them a little more time in which to rebreed. We have a fairly short breeding season. We synchronize and AI the whole group, then watch them for one more heat cycle to breed any that return. After that we put bulls in for 30 days. Basically our heifers have a 52-day breeding season. By doing this, all the heifers calve in the front half of our calving season and are well grouped."

Another key to the Shaw program is separating the first-calf heifers from the rest of the herd. "When we start calving, and even before then, our heifers are kept separate from the mature cows," Shaw says. "They are fed separately before and after calving. Thus we can manage their nutrition a little different."

It's also easier to keep track of and check on their calves, which sometimes need more attention healthwise than calves from mature cows.

"We don't run the cattle in huge groups, but still, if there are 100 to 200 to a pasture, young cows tend to get crowded away from the feed. They don't compete with the older cows very well. So we keep the 2-year-olds away from the mature cows clear through their first breeding season," he says. The Shaws calve out about 200 first-calf heifers in their spring herd, but after calving they are broken up into small groups of about 50 pairs each.

"We have a spring-calving herd and a fall-calving herd, and they are managed a little differently," Shaw explains. "Heifers in the spring herd stay in groups of about 50, and it's easier to manage them, checking calves, etc. For their next breeding season, they are all synchronized again and AI bred and watched through their next heat cycle. Then we put them with a bull. This has worked very well, and keeping them separate from the main cow herd has definitely increased our conception rate on these young cows." These steps have helped keep body condition scores higher.

The heifers start calving about Jan. 10, and the cows start about Jan. 20. The heifers are nearly done calving by the end of February and start rebreeding about April 25. By that time there's usually some green grass. "Usually by April 15 the grass is starting to grow pretty well, but every year is a little different. Sometimes we need to feed them just a little longer until the grass is well started. Most of the time it's the first of May before there's enough grass to count on," Shaw says.

The climate is mild, so winter feeding is relatively short. Before they calve, the heifers are on grass until late in the fall. "We try to stockpile forage so they can stay on grass until about Dec. 20. We may supplement them for the last month of grazing with some protein. When we do start feeding, we give them stock cow quality alfalfa, but it's good alfalfa. After they calve, we feed them straight grass hay for the first 30 days," he explains. There are fewer health problems in the calves if the mamas are not milking too heavily when the calf is young.

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"As the calves get to be 30 days old, we start putting the mamas on a better quality hay again. They start milking a little more and are getting ready to breed. This has worked best for us," Shaw says. "This keeps the heifer from milking so much that the calf gets sick." Some people start feeding more quantity and quality as soon as the calves are born, and this often leads to problems.

"We buy a lot of our hay, but we grow our own grass hay and save it for those cows for right after they calve. During calving we sort once a week so we can have the calving heifers close where we can watch them. As they calve, we move them into separate groups and have 50 to a group. As soon as there are 50 pairs in a pasture, we start a new group," he explains. This grouping helps with calf health, since the calves in each group are all about the same age. A herd can quickly have more sickness problems if you are putting new calves in with older ones that may have already been sick — and the pasture more contaminated.

"We have a cutoff date and start a new group. That way if we do have a disease problem in the calves, it's generally confined to one group, and we might be able to keep it isolated in one group," says Shaw.

After the calves are 30 days old, the Shaws stop feeding grass hay and switch to alfalfa, and the

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Heifer management starts at weaning

The process of getting 2-year-olds rebred actually starts when you make the decision to keep them — feeding them adequately through their first winter so they grow well without becoming fat. Traditional wisdom says that a heifer who reaches about 65% of her projected mature weight by her first breeding season will have a good chance of breeding early — giving her an edge on the challenge of staying on an early breeding schedule.

Her body weight at that first breeding should be due to frame and growth, however, not fat. Yet she must have enough body condition for optimum fertility — body condition score (BCS) should be at least 5, and heifers do better at BCS 6. On a big-framed heifer, be careful you don't mistake frame size and weight for body condition. A large-framed heifer with below average body condition may not breed on time as a yearling and will have a hard time rebreeding as a 2-year-old. She may be a hard keeper and slow breeder all her life. Watch body condition after breeding, and make sure heifers stay at about BCS 6 through their second winter before calving.

It's much easier to get or keep the weight on a heifer before she calves (when her nutritional requirements are not nearly as high as when she starts producing milk) than to try to "pick her up" after she calves. If you rough a group of heifers through the winter before they calve, it will take a lot of feed to try to make up for it after calving, and some of them never catch up.

A study at Oklahoma State University in 1990 using Herefords and Hereford-cross heifers showed that rebreeding success was lower in heifers that were thin (BCS 3 and 4) at calving. Only 67% of the thin heifers rebred, while 91% of the better condition group (BCS 5 and 6) rebred. On average only about 17% of heifers with BCS 3 will rebreed.

Fertility and efficiency are inter-related and an easy-keeping cow/heifer is usually more fertile than a hard keeper. Some people advise sorting the heifers into two groups by BCS, so the thinner ones can be fed more (to increase their potential milk production and their chance for rebreeding) without overfeeding the others.

If the heifers have been in their own group from the beginning, extra feeding should not be necessary and may actually be counterproductive. If a heifer needs more pampering than her herdmates (in her own age group) in order to perform, she is probably not the type of animal you want to perpetuate in your herd, especially if you are raising seedstock. **HW**

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young cows start cycling again by the time they should be breeding. "We have a very good breedback, better than in earlier years. The way we used to do it, we'd have the heifers calve separately, but when we got ready to synchronize and AI, all the cows with a certain age group of calves would be together, whether they were cows or first calvers. We had a little less luck with the breedback on the heifers and realized that these heifers were being crowded away from the feed too much. When we changed our management so we could keep them separate clear through their breeding season, we increased their conception rates by 10-15%. We've had an excellent rate of conception even on their first AI cycle as 2-year-olds. This has really paid off," he says. After the heifers are bred, they go to grass.

"About June 10 we move our cows from Caldwell to summer grass near Cascade, Idaho. By then the AI is all done and the cleanup bull is put with them and stays with them for about 30 days." The summer pasture is at higher elevation.

"This past year we started keeping our 3-year-olds with our 2-year-olds, so they now stay two years in that group, separate from the adult cows. I think this will pay off, also. It seems like the 2- and 3-year-olds can comingle and do well together; the 3-year-olds don't seem to crowd out the 2-year-olds from the feed like mature cows do," he says. The 3-year-olds can also benefit from a little more care and management.

"You have so much money invested in young cows, getting them to this point, that you hate to have them lose out just because they can't quite compete with the older cows due to management. They haven't really started returning your investment yet, and you don't want to lose them just because they needed a little better management to stay in the herd. So we started keeping them separate, too, partly because we've gone to such an intensive AI program (breeding everything AI), and by doing this with the 2- and 3-year-olds we've greatly increased their conception rates," says Shaw.

"Once the 3-year-olds' calves are weaned, those cows go into the main herd," he says. By the time they are 4, they can compete. Young cows are still growing until they are 3 or 4 years old, so this kind of program helps them optimize their potential during these years. They are not fed any more or any longer than the older cows; keeping them separate just reduces the competition so they can get their share.

Keeping them in their own peer group gives them an even chance at the feed. "And when we turn in our performance data, we use contemporary groups, so those groups are together — our 2-year-olds compared with the other 2-year-olds, etc. This works well for us regarding their performance data, also," he says.

"Being a purebred operation, we do have a tighter management on our cows and heifers than most commercial breeders, and this also increases labor costs, but it gives the young cows a better chance. This type of management for the young cows looks like it will prove to be a big benefit for us."

He also tries to keep a complete mineral program for them. "We are very critical about fertility, however. If they are open, they are sold. We don't make any exceptions."

As a seedstock producer, he wants the cattle to function by the same rules a commercial rancher must have. Shaw says, "We don't want to be breeding infertile cattle or any that need a lot of pampering, like grain. For registered cows, ours are run pretty much like commercial cattle; they are run in fairly large groups and go to summer grass in large groups and have a fairly short breeding season. We try to run them as 'real world' as possible. This helps our customers get the kind of bulls that will work well for them in their own programs and sire the kind of daughters they need." **HW**

Preventing dystocia can shorten breedback interval

Heifers that calve quickly and easily are stressed much less than heifers experiencing a prolonged birth. The reproductive tract recovers more quickly and the heifer is able to return to heat on schedule. To ensure maximum chance for rebreeding, heifers should be bred to bulls that sire easy-born calves and should also be watched and assisted at calving, if assistance is needed. Some heifers may still have large calves (no matter what they are bred to) if they themselves were large at birth.

Studies in Montana in the 1980s found that giving assistance (to speed up the birth) if a heifer hasn't delivered her calf within one hour after the tips of the calf's feet start to show at the vulva can make a big difference in breedback. For every 10 minutes the birth is delayed beyond that "golden hour," another two days is generally added to the time it takes the heifer to recover and cycle. Another study showed that heifers experiencing prolonged birth were 35% more likely to be open at the end of the breeding season.

Some stockmen breed heifers a few weeks ahead of the cow herd, not only to give the heifers more time to recover from calving so they have a better chance of rebreeding on schedule but also to give the stockmen more free time so they can devote all their attention to the heifers. If the rest of the herd has not yet begun calving, it's easier to watch the heifers and assist them as needed. **HW**