



Wintering Replacements

Properly managing replacement heifers can set them up to be successful in the cow herd.

by *Heather Smith Thomas*

Good management of heifers — from weaning through first pregnancy, especially during winter — can make a difference in their success as cows. Al Fenton, Fenton Herefords at Irma, Alberta, has been raising Herefords a long time. His parents started the ranch in 1946, and over the years, he has raised thousands of replacement heifers and found good ways to develop them for the environment.

Wintering weaned heifers

“When we wean in the fall, we already have our replacement selections figured out,” Fenton says. “We’ve written down the heifers out of the cows we like, and that we feel have the best advantages to become fault-free cows.”

Fenton utilizes low-stress fenceline weaning in a 10-acre area. “If you have a long enough fence, they settle in quicker and better,” he explains. “They aren’t walking as much. There’s room for pairs to come together at the fence when they want to.”

Calves take behavioral clues from their mothers or other adult cattle around them. If the cows stay calm, the calves don’t spook and run as readily when they see people.

“Another thing that helps at weaning is to feed the cows and calves whatever you’ll be feeding the heifers, and feed that ration for a week before weaning,” Fenton suggests. “Then the calves start eating that feed and know what it is, and their gut adjusts to it. This makes a better transition than if they have to go through

an abrupt change of feed. Once you shut the milk off, if they are already accustomed to that feed, it makes a difference.”

If a producer has the space to feed in bunks with plenty of room and not a lot of competition, all the heifers can be together. If weaning in a smaller area where there is more competition, Fenton suggests dividing them into groups according to weight.

“We are getting set up here to winter on standing corn,” he says. “We already winter our pregnant heifers that way, and they do very well, with no competition for feed. We have native grass pastures for them in the spring. Our yearling replacement heifers go out on those pastures early, to get them out of the corrals. We process them before they go, so they have all their shots. If they are on native grass for a certain length of time before we spread them out in breeding pastures with bulls, they don’t seem to have the weight loss like they would if they were just coming out of the feed yards for breeding.”

They may have a little weight loss because of the difference in the nutrition, but it is temporary. “I think they are ready to go when we are sorting them for breeding; there is not a lot of change involved, and the results are better,” he says.

Target weight

Bart Lardner, Western Beef Development Center research scientist and University of Saskatchewan animal and poultry science professor, says the ideas about raising replacement heifers are



varied. “Traditional recommendation for the past 40 years, has been to have them reach 65% of their eventual mature body weight by the time you breed them,” he says.

This is the reason why many ranchers confine their weaned heifers in a feedlot-type situation and push them to gain more than they would on winter pastures. “Some ranchers keep more heifers than they need and then make selections the next spring regarding which ones to breed,” Lardner says.

Increase in cost of fossil fuel, feedstuffs and capital investment makes developing heifers appear less expensive. “Today we have cattle that can do well without being pushed,” Lardner says.

“There has been research in this area, since the concern has been that puberty would be delayed if heifers were raised with a lower rate of gain and lower percent of mature body rate at breeding. Some of the earlier work was all about insuring they would reach puberty and breed on time, but there’s also been some work done to see if there was an alternative, such as developing them to less than 65% mature body rate. Studies were done looking at developing heifers to 60% or maybe even just 55% of mature weight as the lower end.”

Lardner says success with this idea depends on genetics — British breeds might be better fit for the lower percent than some of the Continental breeds. “We’ve looked at the possibility there might not be a negative effect on reproductive efficiency, not just as a first-calving 2-year-old but also for the life span of that cow in the herd,” he says.

Some ranchers have developed cattle that fit their ranch environment and thrive on the grazing resources their ranch provides without expensive inputs during the development period — the 200 days from October or November until breeding in June or whenever breeding starts.

“Recent work at the research center in Miles City, Mont., evaluated developing heifers to lower weight, studying the impacts on reproduction and economics,” Lardner says.

Rick Funston, beef cattle reproductive physiologist at West Central Research and Extension Center at North Platte, Neb., evaluated heifers developed on winter range and crop residues. Lardner worked with Funston to examine development systems in the Midwest where ranch environments may not provide high energy pastures. In Montana and Nebraska, heifers are often developed on rangeland.

“We put together a development program here in Saskatchewan, looking at two rates of gain for developing heifers — moderate versus high, and an extensive grazing program versus a drylot feeding program,” Lardner says. They called these groups moderate gain in extensive grazing, high gain in extensive grazing, moderate gain in drylot and high gain in drylot.

“We were trying to expose replacement heifers to a system they’d be managed in for longevity in an extensive system where they have to go find the feed versus having it brought to them in a bunk or pen,” Lardner says. “They have to go out and graze, winter well, cycle during breeding season and give the producer a calf.”

Grazing through winter serves a heifer well for the rest of her life; she will ambitiously graze instead of waiting around to be fed or waiting for a tractor to start. Most ranchers want heifers that can utilize crop residues, stockpiled winter range, standing corn or whatever the ranch can grow cheaply for winter feed.

“During the development program that first winter, before breeding, we had some of heifers on a typical high-roughage diet — a grass/legume hay — and bale grazing rather than confined,” Lardner says. They receive a little cereal grain as supplement, since they were being grown in a winter environment and needed a little extra energy, but the largest part of their diet was good

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Monitoring replacement heifer condition is especially important during the winter months.

quality hay. The moderate-gain group gained about 1.2 lb. per day. The high-gain group averaged a little over 1.5 lb. per day. Initially, at weaning, they were all about 565 lb. The heifers with moderate gains came out at about 780 lb., and the high gain group weighed about 870 lb. just before breeding.

“We learned that if you go for the lower percent of mature body weight, such as 55% versus 65%, you need to make sure the breeding pasture has good quality forage,” Lardner says. “The lighter-weight heifers that had not yet reached puberty coming out of winter did reach puberty during breeding season, started cycling, and did become pregnant. So if pasture quality is adequate, they do catch up.” He recommends weighing cattle to know the actual average mature body weight.

“That first year, the moderate-gain heifers had compensatory gain during breeding season,” he says. “Those heifers only gained about 1.2 lb. during winter but ramped up and gained about 2 lb. a day during breeding season and caught up. By contrast the high gain group had static growth at about 1.5 lb. during breeding season.” They had already put on the weight they needed.

“There was no difference in first pregnancy rate; both groups had similar rates of 85 to 90% pregnancy rate. Then we followed them through the next couple years.” The calves that were born to the heifers in all four systems were all averaging about 500 lb. at weaning.

“The heifers with moderate gains caught up with the others by second calving and were similar as mature cows. We looked at 3 years of retention in the herd, comparing how they were developed. The heifers from each of the four systems were similar; each group had about 77% retention in the herd, based on normal culling practices,” Lardner says. Thus, the moderate-gain heifers were just as able to stay in the herd as the ones with higher gain during their development.

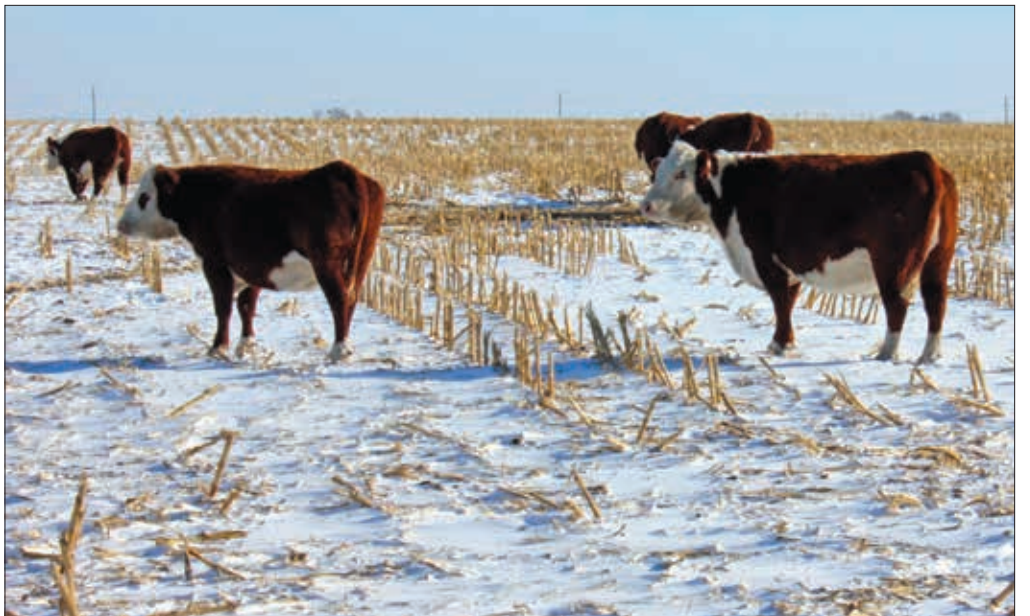
The difference between the extensive moderate-gains group and the drylot high-gains group was about \$60 per head in terms of development costs for the first 200 days after weaning. Other work has shown anywhere from about \$50 to \$70 per head.

“This type of program, shooting for 55% mature weight, won’t work everywhere,” Lardner explains. “You might want to aim for 60% mature weight to fit your environment. Some areas are tougher in winter, and some areas the summers are challenging for forage nutrition.”

Wintering bred heifers

The second winter, when heifers are pregnant, it is important they be in adequate body condition before calving. “The six weeks prior to calving, make sure you are meeting their protein and energy requirements,” Lardner says.

“We wintered bred heifers on a swath graze program and knew the quality of the annual cereal hay they were grazing. This extensive grazing system was cost-saving, but six weeks before they



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started calving we checked the feed quality because we didn’t want them to drop below optimum condition.” It is also important to not overfeed heifers as they approach calving.

Fenton’s bred heifers winter on standing corn from early November until April and start calving April 15. There is no competition for feed, and he says they do well. “We use an oral dewormer in the fall and see a difference in the heifers in how they do,” Fenton says.

He also uses a mineral pack, and the corn they are eating is tested for nutrient content.

He likes to see pregnant heifers do a fair amount of walking during winter. “We start grazing the standing corn fairly close to the water, then as we get toward spring a lot of the heifers are walking a half mile to water,” he says. “This strengthens them and gets them in shape, and they calve a lot easier. They don’t grow as big of a calf if they are fit rather than fat. Walking makes a difference.”

When wintering and feeding heifers, Fenton recommends writing down the heifers that are doing well and the heifers that aren’t doing as well then comparing their bloodlines.

“If some are not doing as well, we pull them out of that group and feed them in a different way. You could still calve them out, but I suggest you not keep those,” Fenton says. “It’s important in the winter, if you are manually feeding or winter grazing, to monitor and assess heifers. The earlier you pull those cattle that are not doing well, the better.”

If there’s a large number of heifers falling off and not doing as well, however, the feeding program should be readjusted. “You need to do this in the fall before you get into winter,” Fenton says. “You don’t want to add feed in the last part of their pregnancy. Body condition should stay constant through the last 60 days. You can bring them up in condition a little bit in the fall to get them where you want them, but don’t advance their condition during the last 60 days of gestation or they will build bigger calves.” **HW**

Shelter helps

It’s important for heifers to get out of the wind — they can handle a lot of cold if it’s not windy. If there are trees and brush areas, they will leave those areas to go out and graze, go to water, and then go back to the sheltered area to be out of the wind.

“If you use man-made windbreaks, spread them out so cattle can stay in smaller groups,” says Al Fenton, Fenton Herefords at Irma, Alta. “If they have to get out of the wind, smaller groups will allow them to not be bothering one another as much. They have lots of area to lie down and chew their cud and process their food properly.”

A goal of winter management is to make sure the cattle can do what they need to do comfortably. **HW**

