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Homemade Heifers

Heifer development involves selection and management.

by Heather Smith Thomas

Developing a set of good replacement heifers is the goal of every breeder who raises his own replacements. With the price of cattle today, it is even more attractive for ranchers to keep and develop their own replacements.

Success depends on many factors including age at puberty, herd health (biosecurity, vaccination program, parasite control, etc.) and nutrition. Fertility and age at puberty are heritable but are also influenced by nutrition. Heifers need optimal nutrition for growth and development including proper amounts of energy, protein, trace minerals, etc., but this doesn't mean overfeeding. A heifer genetically programmed for early puberty and fertility on a moderate plane of nutrition will cycle earlier and be more successful for a long life of production than a less fertile heifer that is overfed to reach her target weight for breeding.

It's ideal for heifers to reach puberty quickly, but it's more important not to get them fat, which can be detrimental to fertility, milking ability, calving ease, soundness and longevity. Easy-fleshing, efficient cattle reach puberty early on moderate feed without pampering. The goal is to have cattle that will perform optimally on forages, rather than having to supplement them with feed. The first step in a heifer program is to have the right genetics for efficient cattle.

Program for early breeding
Idaho cattleman R.J. Hoffmann says he wants his heifers to all calve within the first 45 days of calving season.

"I don't go by the standard rule of thumb that a heifer has to be 65% of her projected mature body weight by breeding age. I pull a few out that are too big. If you consistently cull the top end as well as the bottom end on size, you won't be continually

increasing frame size and weight of your mature cows," he says. There's a happy medium for efficiency and fertility. Hoffmann feels it's better to have a medium-size cow that raises a big calf and always breeds back quickly than

to have huge cows that eat more feed and don't produce that much more pounds of calf.

Sorting for fertility is part of the selection process in the Hoffmann herd. Most of his cows and heifers calve during the first three weeks of his calving season.

"I don't see the point of calving heifers early, ahead of the cows, like some people do, because my heifers breed back quickly enough," he says.

Any young cow that doesn't breed back quickly is sold. This strategy puts constant selection pressure on fertility. The heifers that stay in his herd as cows have generally come from a long line of fertile females. Keeping more heifers than needed through first calving and then picking the ones that bred quickly and calved easily is the ultimate selection tool.

There are advantages to keeping all heifers through their first winter, making final selections at breeding time or right after the breeding season based pregnancy — keeping the pregnant heifers and selling the open ones. In today's market, this is an attractive option.

Weaning regime

Jack Holden of Holden Herefords, Valier, Mont., is part of a family that has been raising Hereford seedstock more than 50 years. "We have always developed our heifers by starting them out at

weaning still on grass at the end of August," he says. "They are 7 months of age by then. We wean them in a lot for a few days, on a corn-based pellet that is 14% protein and 4% fat. They only get between 2 and 3 lb. per day, and the main reason we feed them — even when they are back out on grass — is just to be out with them every day. This is partly to check for health issues, and to get them used to people amongst them banging buckets, etc. This helps with

disposition issues and gentles them nicely."

He adds that this additional feeding is also a way to include Bovatec in the diet. "I firmly believe that feeding the ionophore to heifers aids in earlier puberty," he says. "As soon as we get them eating, we turn them out on hayfield aftermath, but still go out and feed the pellets once a day in the morning."

Joe Van Newkirk, whose family has raised Hereford seedstock near Oshkosh, Neb., for several generations, says his calves are born February and March and weaned the end of September or first of October. "We don't fence-line wean but the cows are

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PHOTO BY ANGIE STUMP DENTON

At Holden Herefords, Valier, Mont., replacement heifers are weaned on grass at the end of August. Their diet is supplemented with feed during the winter months.

right outside the corral,” he says. “We feed the calves a commercial pellet (complete feed) the first 3 weeks but we also put big bales of native hay out for them to eat free choice,” he says.

After that, the heifers are sorted, and replacements are selected. “We put them on a ration of ground alfalfa hay, sorghum silage and about 5 lb. of wet corn. We also give them a supplement pellet that contains mainly minerals and vitamins and a little protein, just to balance the diet,” Van Newkirk says. The heifers are in a large pen and fed in feed bunks. They have a lot of room for exercise.

“We keep them on that ration until early December, then remove the grain. We want to put a little bit of bark on them during the first couple months before they go into winter, but don’t want to get them fat. We don’t want fat in their udders,” he explains.

Keith Elkington has been breeding Polled Herefords near Idaho Falls, Idaho since the 1960s. “We don’t baby replacement heifers,” he says. “We wean them at the upper ranch and bring them to the valley where we put them on round bales of hay. We don’t feed them any grain. They grow up a little more slowly but this shows which ones are efficient and able to perform on natural feeds, and they last longer as cows.”

At weaning, heifers are given vaccinations prior to taking them off the cows. “They don’t need any other shots at weaning; all we do is use a pour-on and put them in the corrals. The cows stay up at the ranch and the calves are brought to the valley,” says Elkington.

Mark and Della Ehlke raise registered Herefords near Townsend, Mont. “We wean the heifers like we do our bull calves, giving a pre-weaning round of vaccinations. When we take them off the cows we put them on a weaning pellet and free choice hay until they have quieted down,” Mark Ehlke says. Then they go on irrigated grass under a pivot. “They are born early and weaned while there is still green grass available. They are fed the weaning pellet — about 1.5 to 2 lb. a day,” he says.

Winter feed programs

Mark Ehlke’s heifers are on grass and pellets for 60 days after weaning and are then sent to a development lot about 50 miles away during the winter months. “Historically we’ve done that because we don’t have room to winter them here,” Ehlke explains.

“We are currently in the process of expanding our operation, and hopefully can keep the heifers here at home in the future. The folks who develop our heifers have done a great job but we hope to eventually have enough green feed that we can run the heifers out on that through winter. That way we can let them come along more slowly and not push them,” he adds.

Jack Holden’s heifers are on grass after weaning, but Holden keeps feeding them a little through winter. “When we have to add hay to their diet we use a chopped hay mix that contains some good alfalfa and barley straw,” he says. “We add a forage crop bale (either wheat forage that we planted or a hay/barley or pea type forage). We can also utilize first year (new seeding) hay, or rained on hay as a quarter of that mix, to add roughage.”

Holden’s target is a 1.5 lb. per day gain, though the genetics of the herd generally allow them to hit 1.7 lb. per day. “They are efficient cattle and gain well,” Holden says. “We basically stay on that ration until February first. The pellets containing Bovatec are fed in bunks and the chopped hay in free-choice feeders and we keep those full,” he says.

Around the first of February, Holden stops feeding pellets and takes yearling weights, keeping his heifers on chopped hay and an ionophore tub supplement. “This helps with feed efficiency and earlier puberty,” he says. “We continue this supplement on through breeding, which starts the first of April. They breed up nicely on this ration because we don’t have any green grass yet.”

Breeding program

The Van Newkirk heifers are kept on a ground hay and sorghum silage ration until early April. “We then add



Mark and Della Ehlke, Townsend, Mont., say their replacement heifers are given a pre-weaning round of vaccinations.

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a couple pounds of grain back in the ration about the time we start them on MGA for the artificial insemination (AI) protocol,” Van Newkirk says. “This helps flush them a little for breeding. We also add a comprehensive mineral to their feed at that time. It’s equal parts calcium and phosphorus and put it into the feed rather than free choice. It’s chelated, which is supposed to make it more bioavailable,” he says.

After AI during early May, the heifers are left in confinement until they’ve gone through their next heat cycle. “We split them up after the AI and put cleanup bulls with them until they go to the range,” he says.

After wintering on hay, Elkington heifers are vaccinated and synchronized for breeding. “About 30 to 40 days before we give them their synchronizing shots we put them on about 3 lb. of grain,” Elkington says. “After they are AI bred we immediately haul them to the range and turn them out with cleanup bulls. Studies have shown there is less early pregnancy loss from moving them if you do it quickly rather than leave them a few days.”

Holden’s heifers weigh about 900 lb. by the time they go out with bulls and are well developed and cycling. “We pull the bulls out about May 20 after a 50-day breeding season,” Holden says. “We usually don’t have grass until May 10, so we’re about done breeding by the time they are on grass.”

Holden says he usually has a 94-95%

conception rate in a 50-day breeding season. “We might breed a few AI but we don’t do any synchronization programs,” he says. “Occasionally the bulls we want to turn out are still being collected. In that situation we may do some AI at the start of the breeding season but mainly it’s natural service for the heifers.”

There are advantages to just letting them be out with bulls. “Our heifers are in large pastures (40 to 80 acres) all winter and move around a lot. I prefer this method of developing heifers as opposed to confinement for feeding and breeding,” he says.

The Ehlke heifers, by contrast, are in a confinement heifer development program because there isn’t room at home. “About 30 to 40 days prior to breeding we increase their feed and give them a Multimin shot,” Ehlke says. “We’ve had very good luck with that, regarding number of heifers that conceive at first cycle AI breeding.”

All the heifers are bred AI at least once. “Whether we leave them in for another cycle depends on when the turnout pastures are ready. Normally they just get one round of AI and they are ready to come home, and we put them out with low birth weight cleanup bulls,” he explains.

The challenge of developing a great set of heifers boils down to a combination of genetics and management, with a good health program as a supporting factor. **HW**