First-Calf Heifer Nutrition: Calving to Breeding

Eric Mousel, University of Minnesota

here are few things riskier than developing, calving-out, and rebreeding first-calf heifers. They hold so much promise for the cowherd's future, yet often fail in bringing this to fruition. The failure of heifers is generally not their fault.

Well, at least not entirely their fault. One would think they would have said something when losing body condition last fall, or would have understood they weren't carrying enough reserves for calving. They also made no mention of the heavier-than-usual calves they were carrying due to the cold winter. They forever held their peace. Then, they failed to rebreed and left you wondering what in the world to do with them. All of that effort scattered to the wind.

This nightmare can easily be turned into a fairy tale with a few adjustments to how you handle your ladies. The easiest way to evaluate first-calf heifers' relative well-being is to assess body condition. We have an opportunity to make adjustments, if needed, to increase the probability to rebreed with their second calves. If you can see individual sections in the tailhead, see pin bones, or there is no fat around the tail; they are too thin. Remember, she is trying to repair the repro-tract after calving, milking for her new calf, and she is still growing. She is going to need to carry a little more than a running age cow in the breeding season to be successful.

The condition she carries from calving to breeding is going to impact how quickly she comes into heat during the breeding season and how quickly she settles when exposed to the bull. A first-calf heifer in good condition should return to heat in <60 days after calving. If not in good condition, she could take as many as 90 days, probably making her a short-bred in your herd, if she settles at all.

The ideal time to make adjustments to nutrition management is about the time she hits peak lactation, occurring ~30 days after calving when nutrient requirements are going to be the highest of the cycle. If she is in pretty good condition at this time, you probably don't have to worry. However, if she is on the thin side, she is only going to get thinner unless you up her nutrition program. A first-calf heifer at peak lactation is going to require ≥58% total digestible nutrients (TDN) and 9.3% crude protein (CP) in her diet to maintain what she has. If she needs to gain weight before breeding, she will probably need at least a 65% TDN and 12.1% CP diet.

A decent-quality hay or haylage should provide enough nutrition to hold her weight if she doesn't need to gain any before breeding. If your hay is not so good, supplement with 1-2 lbs of distiller's grain to get her what she needs. It will help to keep first-calvers separate from running age cows so they don't get pushed away from the feed bunk. If she needs to gain weight before breeding, you may need to add 2-3 lbs of distillers grains and maybe 3-4 lbs of cracked corn. If she's getting chubby and you start to see fullness in the tailhead area, you can back her down to a maintenance ration.

Another thing to keep in mind for thin cows and heifers coming off an exceptionally cold January/February is the opportunity to capitalize on compensatory gain. They used pretty much everything you fed them this winter, plus some of their fat reserves just to stay warm. The restriction in nutrients triggers a response to utilize additional nutrients more efficiently than normal for a short period of time (3-4 weeks); starting when the temperature gets >20°. If you give them all they can eat plus an energy supplement during this period, they can easily put a body condition score (85 lbs) on in less than a month. If you've got thin cows or heifers, take advantage of this opportunity to put on some really cheap gain – shaping them up for breeding in pretty short order if you use your resources right.