

# Dairy Details

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Editor: Lindsey Borst DVM

NORTHERN VALLEY DAIRY PRODUCTION MEDICINE CENTER

## Are Your Heifers Weighing You Down?

### Part 1

Cut here, cut there, cut, cut, cut. How sick are you of all your farm advisors telling you that you need to cut more costs? We especially seem to focus on the two biggies when it comes to cost on dairy farms: Feed costs and heifer rearing costs. One solution to cutting heifer costs that has been pushed the last couple of years has been to breed them earlier, to get them pregnant earlier so that they can join the milking herd as early in life as possible. This way, we shave off a couple of months of feeding these heifers while they aren't producing any income for us. But, as these early bred heifers have freshened over the last few years, data may be showing that we are losing more than we are gaining by calving in heifers really young.

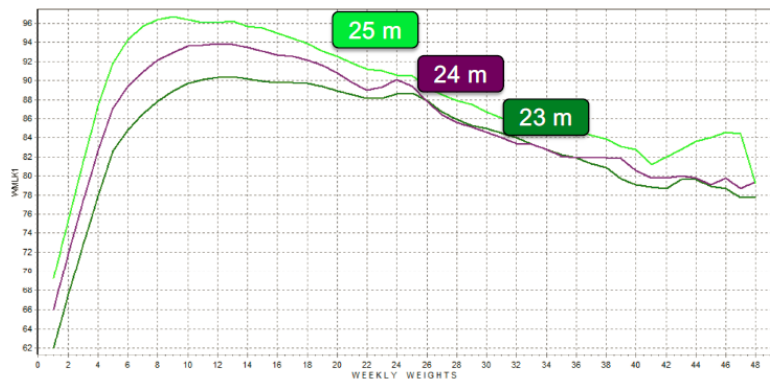
Dr. Gavin Staley, a veterinarian who works with Diamond V, has been researching this conundrum by looking at hundreds of thousands of milk production records. His findings suggest that when making goals, rather than saying I want my heifers to calve at X number of months old, our goal should be I want them to weigh XX number of pounds when they calve. This calving weight will determine not only their first lactation milk production, but the production level for the entire herd.

Dr. Staley has made 5 important observations through his research to support this theory:

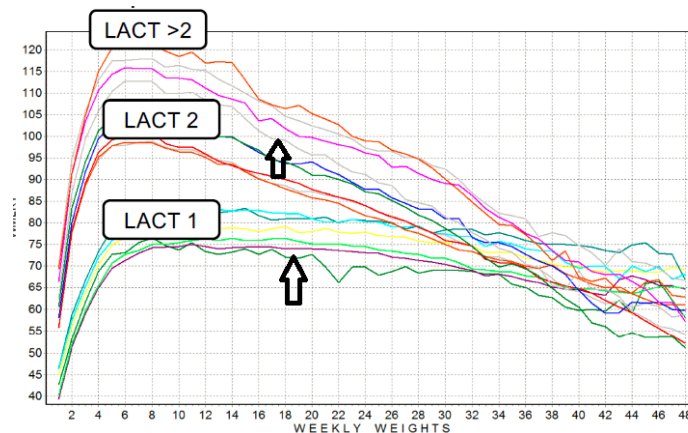
1. Average annual herd milk is within 1-2 pounds of Week 10 milk production of 1<sup>st</sup> lactation animals. This means if your herd has a 90 pounds average, at 10 weeks in milk, your 1<sup>st</sup> lactation cows will be milking 88-90 pounds. What are the implications of these observations? 1<sup>st</sup> lactation milk production sets the "ceiling" for the whole herd.
2. 2<sup>nd</sup> and 3<sup>rd</sup> lactation milk production at 5 weeks in milk is correlated to 1<sup>st</sup> lactation milk. At 5 weeks in milk the difference between 1<sup>st</sup> lactation and 2<sup>nd</sup> lactation is 30 pounds of milk (Holsteins) and the difference between 2<sup>nd</sup> and 3<sup>rd</sup> lactations is 8-10 pounds of milk.
3. Age at freshening impacts 1<sup>st</sup> lactation milk production. As you can see from the graph on the next page, cows that calved in older had higher milk yields on their lactation curves. But the question has been, is losing a little milk in one lactation worth feeding these heifers for a couple less months? What additional milk could be produced, if heifers are grown out longer?

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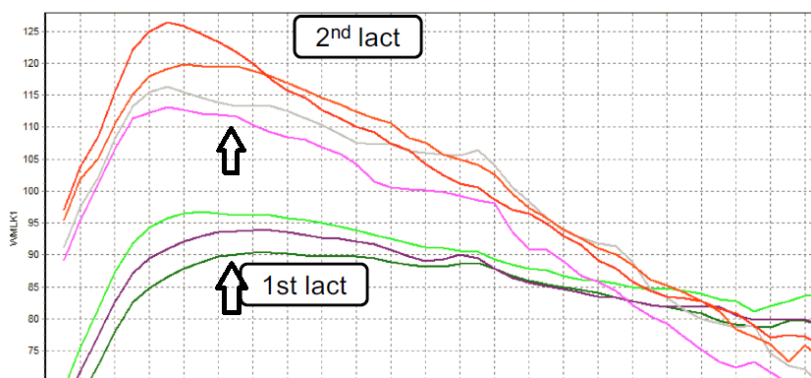
4. Age at freshening impacts 2<sup>nd</sup> lactation milk production (see graph below). The black arrows point to the milk production curves of the same group of cows showing their 1<sup>st</sup> and 2<sup>nd</sup> lactations. These cows calved at 23 months old. The other three lines represent cows that calved in at 24, 25, and 26 months old. The trend of lower milk production in cows that calve younger continues into 2<sup>nd</sup> lactation. Now the question has changed to is feeding heifers for a couple less months' worth a little less milk in TWO lactations?



So, what is the perfect calving age or weight at freshening that we need to get optimal 1<sup>st</sup> lactation milk production, which will in turn lead to higher milk production in the entire herd? This answer will vary from farm to farm. To get to the right answer will take some measuring and monitoring that will be discussed in next month's newsletter. So, stay tuned!

### Change to Come with New Year

From Dr. Borst: I have recently accepted a new position as a Calf and Heifer Specialist with Purina Animal Nutrition and All-American Co-op. While I am excited to use my veterinary skills and knowledge in a different way in my new endeavor, there are many things I will greatly miss about private dairy practice, with our clients being the highest on that list! But luckily, I will still be in the area and will still be spending the majority of my time on farms. I hope to still run into many of you on a regular basis! My last day with Northern Valley will be January 31<sup>st</sup>. I hope to be able to visit with as many of you as possible in my last month here. Thank you for making my years with you so enjoyable! Happy New Year!



5. Age at freshening impacts 3<sup>rd</sup> lactation milk production. Again, in the below graph, the black arrows point to the milk production curves of the same group of cows showing their 1<sup>st</sup> and 3<sup>rd</sup> lactations, with similar results to the ones we discussed above. It appears that cows never "catch up" when they have a lower producing 1<sup>st</sup> lactation than their counterparts.

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