



Straight to the Bottom Line

**Getting Cows Pregnant on Time Means More Milk**  
**Steve D. Martin**

I have been formulating diets for dairy cows for almost 20 years now. These years have been focused on how to feed cows to maximize milk output. We have attempted to calculate things like protein fractions, high energy densities, correct mineral balances and fine tuned starch rates. All of these things are certainly important, but the longer I am in this business, the more I am convinced that there is one key to long term profitability. This one key is to get cows pregnant on time! No matter how well we formulate a milk cow diet, if we can't get cows pregnant on time, we will never be happy with the amount of milk we ship.

The overriding rule at work here is the shape of a normal lactation curve and more importantly for our discussion today, the downward slope of the backside of that curve. Every cow milking on a dairy has its own actual curve based on that cow's actual milk each day since freshening. If we get that cow pregnant when we are supposed to, she will dry off before spending too many days on the far right side of the curve.

In order to demonstrate this point, I set up three scenarios to compare. Dairy A has a perfect reproduction program and has a yearly average days in milk (DIM) of 150. In this case, each cow calves on the same date every year. They have a 305 day lactation and a 60 day dry period. Dairy B has a good reproduction program and has an average yearly DIM of 180. Dairy C has many issues getting cows pregnant on time, and has an average yearly DIM of 220. The table below shows the difference in milk production and feed conversion between the three herds. The point to be made here is that the same sets of rations fed to the same set of genetics in the same facility have drastically different results based simply on how successful the dairy was at getting cows pregnant on time.

	Dairy A	Dairy B	Dairy C
Avg DIM	150	180	210
Milk #	77	72	68
Intake	52.8	52.3	51.9
M:F ratio	1.46	1.38	1.30

There are a couple of take home messages for me in this table. First, lowering your DIM by getting cows pregnant on time has a huge impact on your milk flow. Secondly, cows that are long DIM and still in the herd have terrible feed conversions. This is due to cows milking more than a year have much lower milk flow, but still have a pretty good appetite. A particular dairy may have more milk or less milk with more or less intake, but the general directional principles in this table still hold true.

So, as you look for ways to ship more hundred weights down the driveway, look to reproduction success as a tool to accomplish your goals. We can only get so much milk out of fresher cows and still keep them healthy. Maybe the best way for your dairy to ship more milk is to become more successful at getting cows pregnant on time!