



When we talk about feeding high energy forages, we talk a lot about the benefits of getting energy from highly digestible fiber, reduced acidosis and the various agronomic benefits. One thing that is very important but not often discussed is how feeding high forage diets can impact replacement rate. It's obvious that replacement heifers cost money, but just how much they cost may be an eye opener.

Industry-wide, replacement rates are often in the range of 40%. For the sake of easy math, let's examine a 100 cow herd. A 40% replacement rate translates to raising or buying 40 heifers per year and selling 40 cull cows. While some income will be realized by selling the culls, it won't completely offset the cost of the heifers. Generally, the spread between buying a heifer and selling a cull cow is about \$1000 (in the red). So the net cost of replacing 40 cows per year on this farm is \$40,000 per year.

This can be a huge profit center, If the dairy was purchasing these heifers and now due to lowered cull rate doesn't have to, these are now monies that are freed up for other projects at the dairy or family living, On the other hand if the dairy owns the heifers and now they become saleable vs. using them up with involuntary culling or turnover, The math is quite simple but frequently overlooked, by cutting the cull rate in half to 20%, the net cost of replacement heifers is \$20,000. In other words, the operation saved \$20,000 per year by cutting their cull rate in half. On an annualized basis, the producer saved \$.55 per cow per day (\$20,000/ 100 cows/ 365 days).

So, how do you achieve lower herd turnover? Of course all of the cow comfort issues come into play, but how you feed the cows has a huge impact on turnover. Too much starch fed for too long will have negative effects, period. Feeding high energy forages that allow you to back starch (grain) out of the ration translates into healthier cows and lower herd turnover. Not only will you cull less cows, but your feed costs will go down too!

By the numbers:

- 20% turnover compared to 40% turnover on a 100 cow herd
- 40 cows x the difference of purchase or cull price of approx. \$1000.00 = \$ 40000.00
- 20 cows x the same math of \$ 1000.00 = \$20000.00
- \$40000.00 - \$20000.0 = \$20000.00 saved due to fewer heifers being purchased
- \$20000.00 / 100 / 365 = \$.548/cow/day less fixed cost charged to each of the 100 cows milking.

How much could you save per year by cutting your replacement rate from 40% to 20%? Consult the table below:

Cow #'s	100 Cows	200 Cows	300 Cows	500 Cows	1000 Cows	2000 Cows
\$ Saved	\$20,000	\$40,000	\$60,000	\$100,000	\$200,000	\$400,000