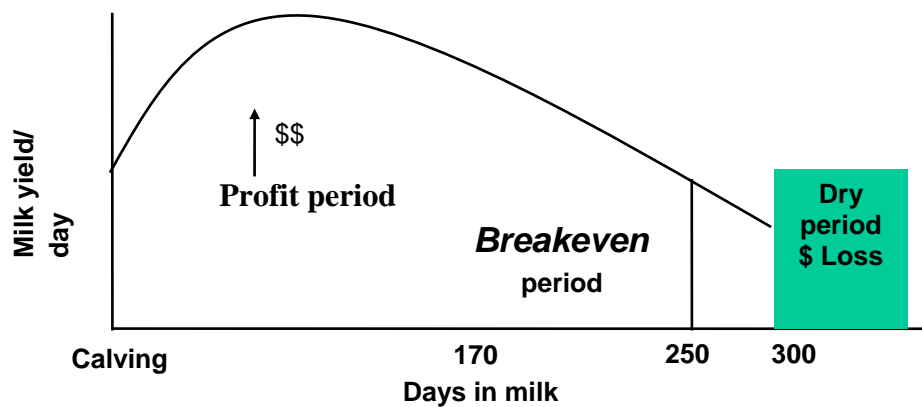


The Importance of Good Reproductive Performance

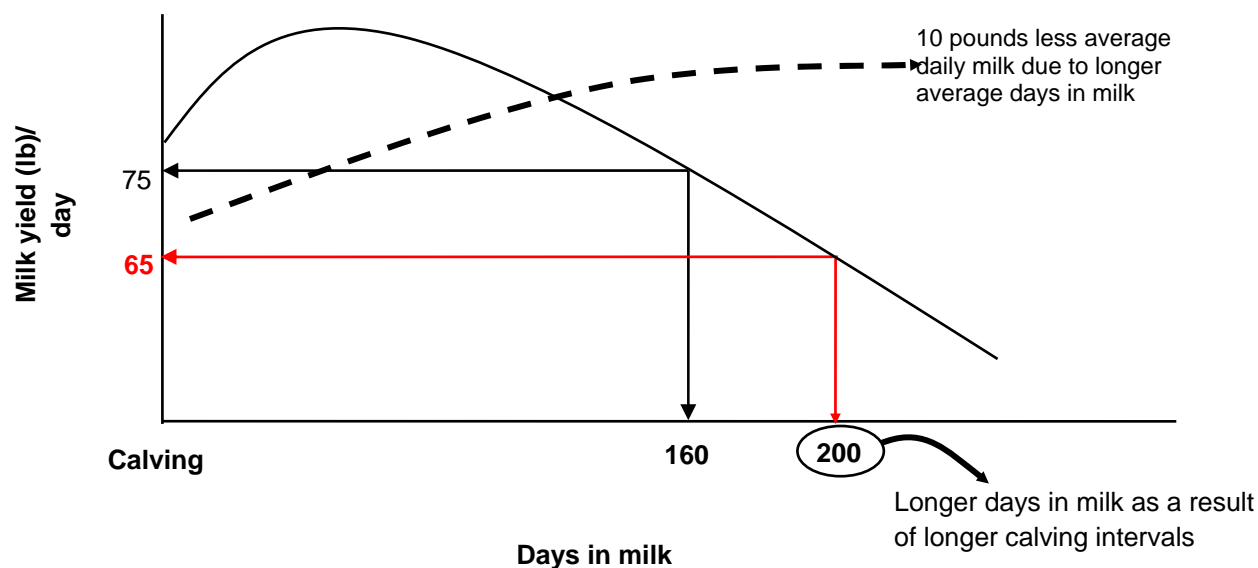
By: George Heersche, Jr., Ph.D.

One of the major factors determining dairy herd efficiency is the amount milk sold per cow per day of life. Several factors contribute to pounds of milk sold per day of life, but reproductive performance is a major contributor.

The two main reproduction influences on lifetime milk production are age at first calving and percentage of time a cow spends in the first months of lactation. A typical lactation curve is shown below. Peak production occurs five to ten weeks after calving and a high level of production is maintained for several months. A good rule of thumb to remember is about half of the lactation production is produced in the first 120 days. This is the time when the cow generates the most amount of profit. The cow then enters a “break even point” phase in which cost of production equals the revenue from milk production, and money is lost at the end of lactation. Therefore, she will have more profit periods per lifetime the more frequently she is pregnant.



Let us look at this issue from a whole herd perspective and explore why poor reproductive performance can lead to economic calamity. Herd reproductive performance is measured by days open, calving interval, and conception and pregnancy rates. Calving intervals directly influence the average days-in-milk and this affects herd average daily milk production (tank average). In general, as calving intervals increase, the average days in milk for the herd increases as well. Higher average days in milk are not a good thing because there is an inverse relationship between herd average days in milk and herd average daily milk. In other words, the longer the average days in milk, the lower herd average daily milk production. See the figure below.



Longer calving intervals also result in fewer calves born during the productive lifetime of the cow. This inefficiency in reproduction leads to less lifetime calf crop, fewer replacement heifers, and therefore loss of potential income. Furthermore, dairy operations with reproductive inefficiency experience a high involuntary culling rate due to reproductive problems. The involuntary culling increases the need for replacement heifers and sometimes forces producers to lose young cows before they cover their rearing expenses.

Poor reproductive performance means a higher number of problem cows who need more attention by a veterinarian. Furthermore, cows with reproductive problems have lower conception rates and ultimately require more inseminations before they become pregnant. Collectively reproductive problems lead to increased semen and veterinary costs.

Maintaining a high level of reproductive efficiency is required if dairy producers want to maximize herd profitability. We must realize the significance of good reproductive management policies and try to implement them every day so cows become pregnant in a timely manner.

(This article is an adaptation of an article written by Dr. Amin Ahmadzadeh, Animal and Veterinary Science Department, University of Idaho)