

Part 1: What drives profitability on commercial dairies?

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Over the years, many financial and management experts have tried to identify factors related to profitability on dairy farms. A multiyear study was recently completed by Zoetis and AgStar that examined 90 management factors and their correlation with profitability on commercial dairies. They specifically identified 6 factors showing strong correlation with net farm income expressed as dollars per cwt of energy corrected milk.

It is important to remember that correlation does not equal causation when examining studies such as this. Ranked by strongest correlation, these 6 factors include the following: net herd replacement cost (NHRC), pregnancy risk (often referred to as rate) (PR), heifer survival rate, energy corrected milk (ECM) shipped per cow per day, somatic cell count (SCC), and death loss. This month will examine the first 3 factors.

NHRC can be defined as the difference between total replacement cow value and book value of dead and sold cows per cwt ECM. In general, replacing fewer cows, having lower heifer raising costs, having higher cull/dead values, and selling more milk will result in a lower NHRC. This particular factor might be a good goal for dairy farms since the average age to first calving is around 26 or 27 months, but many farms average 22-23 months. In addition, dairy herds seem to be getting younger, due to an excess of replacements, and we know that younger cows produce less milk.

Pregnancy risk is defined as the percent of eligible animals becoming pregnant in a 21-day period. This factor was highly correlated with profit and also with ECM and SCC. More than likely, high PR causes increased milk production due to shorter lactations. In addition, higher PR may also result in lower breeding and veterinary costs and more selective culling.

Heifer survival rate is the inverse of heifer death rate. The more heifers that survive, the more profitable it is. This factor likely reflects the quality of calf raising in addition to older heifer raising.

Next month, we will explore the last 3 factors: energy corrected milk (ECM) shipped per cow per day, somatic cell count (SCC), and death loss.