To Cull Or Not To Cull

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I once heard a noted dairy business consultant comment that the answer to high milk prices is to add more cows and the answer to low milk prices is add more cows.

Although his comments were made somewhat in jest, this thinking does have some merit. The reasoning is as follows: in a period of high milk prices, adding cows increases overall profits of an already profitable dairy; in a period of low milk prices, adding cows can spread the fixed costs of the business over greater units of production, thus decreasing the total cost of production, increasing net profits and improving cash flow.

Both lines of thinking are based on the premise that adding cows on an individual farm will not lower the price of milk. However, when many farms react to prices, low or high, in such a manner, supply is affected. If not offset by an increase in demand, prices will decline.

In light of the current dairy business environment, much attention has been given to a different approach to dealing with low milk prices. The theory is that if each dairy operation would cull two extra cows, supply would decrease to a level more in line with demand, which would result in higher prices.

Some Markets Unavailable Because Of Early Press Deadlines

The concept behind this theory is that every operation has two cows that are not making any money for the business. Whether this reasoning is correct can only be determined on an individual basis by closely examining the costs incurred by the low producing cows in a particular herd.

In periods of low prices, many dairymen are reluctant to dry off or sell animals because it will decrease volume. They see the decrease in volume resulting in lower gross profits (i.e. less money to pay the bills, mortgage and owner draws). Although this is true, in many instances the corresponding decrease in expenses will more than offset the decrease in milk income, resulting in higher net profits (i.e. money to pay the mortgage and owner draws.)

Culling decisions should seldom be made on the production results of a single test. There are many reasons for culling animals. These reasons are separated into voluntary and involuntary categories.

Some involuntary reasons include culling cows due to: being crippled (poor feet and legs), persistent mastitis problems, non-breeders, and disease or death. Voluntary culling reasons include selling animals for breeding stock or selling lower producing animals to make room for a higher producing replacement animal.

The Dairy Herd Improvement Associations have developed a list of multiple culling criteria, which can be used to make culling decisions. Those criteria include:

1. Animals open 250 days and not yet confirmed pregnant.
2. Animals bred four times or more.
3. Animals with an average Linear SCC of 6.0 or greater.
4. Animals producing less than 80 percent of the mature equivalent average for the herd.

These criteria can be used when evaluating the herd for making culling decisions. If an animal falls into more than one category, it is a good candidate for taking a bus ride to the packing plant. If used on a consistent basis. unprofitable animals will be removed from the herd in timely fashion.

However, on most farms finding candidates for the cull list is not a problem. With an average cull rate of 35 percent or more, most of which are involuntary, the number of voluntary culls are held to a minimum. As a result, dairymen are often milking cows that are not paying their way. Determining the level of production at which cows are no longer profitable is a key step in determining whether they should be left in the milking string, dried off or sold.

At the very least, a cow must cover the variable costs associated with having her in the milking string. Those expenses include feed, labor, electric, supplies and BST, if it is being used on the dairy. Many of the other expenses on the farm are fixed and will not change whether the dairyman milks the cow in question or not. If an animal is covering her variable costs of production, plus contributing money toward the fixed costs of the dairy, she should probably not be culled, unless space is limited and a replacement capable of generating greater profits is available.

If such an animal is culled, the fixed cost she was covering will be transferred to the remaining cows, thus increasing the total cost of production for milk produced by those animals.

I have developed a simple worksheet to help determine the production level at which an animal is no longer profitable. For those of you with computers, an Excel spreadsheet is available.

When calculating feed expenses, one should assign a reasonable market value to the raised feeds. Only milking labor is calculated, as feeding and husbandry labor hours are fixed and will not change greatly if one or two animals are culled.

Other expenses are calculated using an average annual cost per animal. BST costs are calculated based on cost of a dose and administration interval. Both the worksheet and computer program are very simple to use. They are very basic in nature, examining only the level of production at which a cow is no longer profitable.

There is a more complex computer program, Cow Value, which analyzes culling decisions based on a number of factors, including, reproductive economics, milk quality and production levels. This program is included with DairyComp 305. It calculates the value of the cows in a herd and determines which animals have the lowest potential for future earnings. Cows with the lowest value are the first candidates for the cull list.

Whether you choose to use a simple tool such as those discussed above or a more complex tool like Cow Value, analyzing your herd to determine which cows are losing money will pay large rewards in the form of improved net profits. If, as a result of the process, supply is reduced and milk price increases, the rewards will be even greater.