

# **Culling Dairy Cows: An Opportunity for Improvement When Feed Supplies Are Tight**

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Drought conditions along with lower milk market prices at present have provided dairy producers with not only another challenge, but with an opportunity as well. Many producers, faced with the prospect of short or lower-quality feed supplies, higher prices for supplemental feedstuffs, and relatively low milk prices, may consider culling as a means of matching feed inventories to economically viable cows. Well-planned culling strategies can improve the bottom line, in times both good and bad.

The following guidelines are designed to create a culling strategy. Circumstances vary from operation to operation, so these recommendations can only be a guide. They do, however, provide producers a framework around which a specific culling policy, appropriate to each enterprise, might be devised.

First, it is necessary to make an assessment of the available feed resources in order to project the herd size that can be supported. Recall that while forage on your own farm may be scarce, there may be opportunities to purchase standing corn from neighbors that can be harvested as silage. Other publications address concerns with purchased feed and prices.

It is also worth noting that heavier than normal culling must be part of a long term strategy if the farm plans to remain viable in the future. Present very strong cull cow prices make sales of cows attractive to reduce feed costs, improve herd productivity, and produce cash to allow feed purchases. However, if drought is prolonged or widespread, cull cow prices will decrease and future prices for springing heifers may be expensive, making it difficult to re-grow the herd when feed is again available, perhaps a year from now. Repopulating the herd may be necessary sooner than later to spread fixed costs over more animals.

Current cull cow prices and high feed prices have forced, to perhaps historic levels, the production threshold below which the cow should be culled. For example, when a non-pregnant cow does not contribute to covering her fixed costs per day, she should be culled. Said another way, each farm has a variable cost of production. When a non-pregnant, late-lactation cow falls below the production level that will pay for those variable costs, she should be culled. Typically, she should be replaced, but when feed is scarce, the decision may be made to not replace her—at least not immediately

## Use the following suggestions to select cows for culling:

- Measure expected reasonable feed inventory as well as how much forage and corn you will need to buy and be able to afford to buy. Determine the number of cows that may be reasonably fed based on inventories and availability. Rank cows according to pregnancy status, number of days in milk, current milk production level, soundness, and somatic cell count. Begin working from the bottom of the list and cull cows until you achieve the number remaining that feed inventories and purchases will comfortably feed.
- Culling of cows and heifers is certainly a strategy that can also be considered. But be sure to consider the long term implications of reducing the numbers of future replacement heifers. On one hand, culling heifers and calves heavily reduces the feed requirements for the herd and allows the scarce remaining feed to go toward lactating cows that will return income. On the other hand, the reduction in heifer numbers may be harmful in the long run. Typically, heifers, especially those breeding age or younger require less feed than cows and may be ready to enter the herd about the time feed supplies become more readily available again. Besides, if other farms also cull cows or heifers heavily, dairy replacement females may become more expensive locally or regionally.
- Utilize DHIA's Special Management Option-Culling Guide—Report 510. Projected relative profit (PRP) predicts each cow's income over feed costs for the remainder of the current 305-day lactation, the non-productive dry period, and the next 305-day lactation. The projection is based upon the current lactation. This list identifies cows that are relatively low producers or that did not breed back promptly, resulting in an extended lactation or prolonged dry period.
- Relate a cow's level of production to the length of time during which breeding will be attempted. Consider not rebreeding those cows with mature equivalent (ME) of less than 85 percent of the herd average ME, and cull them at the end of their current lactation when milk yield no longer contributes to fixed costs. Also, consider not providing further breeding attempts for animals that are open and are more than 180 days in milk, and cull these animals, too, at the end of their lactation.
- Consider culling all cows with elevated somatic cell scores or with more than one bout of mastitis during the current lactation.
- Consider culling cows with high cell counts for two lactations despite receiving dry cow treatment during the last dry period.
- Consider the risk that a cow with a disease condition will be culled in the first 150 days in milk anyway. This risk varies with the condition. Cows with high or moderate risk conditions are candidates for culling (See Table 1).
- Consider culling extremely slow milkers or other animals whose temperament prolongs milking time or impedes parlor flow.

## Implications when selling large portions of the herd:

- Work with your accountant and farm advisors to discuss the tax implications of culling the herd heavily. You may elect to postpone reporting of the gain on the sale of dairy cows which will be reinvested in replacement animals after the drought. The gain which may be postponed is limited to sales in excess of your normal business practice. Reinvestment of the gain must occur within two years after the end of the year of sale. The reinvestment deadline is extended to four years if the area is designated as eligible for federal assistance because of the weather condition which caused the sale. The number of replacement animals purchased must at least equal the number of animals sold. The investment in and be used for the same purpose. Gain which does not qualify postponement is reported as income on an amended return for the year of sale.
- Be sure to observe any medicine and antibiotic meat withholding times. Suddenly necessitated decisions to cull cows can be problematic if cows were treated with medicines with the intention that they would be kept and milked for an entire lactation. Meat residue withholding times are based on dosage and route of administration according to label. Work with your vet on appropriate withholding times for extra-label drug usage.

**Table 1. RELATIVE RISK OF BEING CULLED AFTER COMMON PREDISPOSING DISEASES**

<b>Relative Risk</b>	<b>Disease Condition</b>
High	Mastitis requiring systemic therapy (antibiotic injections)
Moderate	Teat injuries
Moderate	Disease of feet and/or legs
Low	Respiratory disease
Low	Mastitis requiring only local therapy (intramammary tubes)

- The ability to maintain enough cows to cover variable costs and allow scheduled payments on fixed costs is essential. It is tempting to consider costs on a per cow basis, make the culling decision to match feed inventories, and neglect the fact that after large scale culling, the fixed costs grow significantly on a per cow basis. Be sure to keep your lender(s) engaged in any major decision making that could affect long term cash flow.

Farming is not easy work, and the decision whether or not to cull an animal is perhaps one of the more difficult tasks every producer must make. This is especially true when the decisions are forced by external factors, such as drought. When made in an objective manner, culling a portion of the dairy herd can contribute to the management of feed resources, improve short term cash flow, and control input costs over the next year without harming long term profitability.