



Factors Related to Consider when Culling Cows from the Herd

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Culling cows from beef operations frequently is thought of as a necessary evil for beef producers. Annually, producers remove 10 to 25% of their cow inventory and replace those cows with new breeding stock in the form of pregnant replacement females (raised or purchased) or purchased pregnant cows. Removing the unhealthy, nonpregnant, old, or poor performing cows from the herd seldom is thought of as a significant financial contributor to a beef operation. However, with some strategic planning producers could enhance the value of their cull cows significantly by understanding numerous management and market factors.

Factors that producers use for culling cows can be broken down into several areas:

- 1) **Biological Factors:** When understanding some of the biological selection tools producers should consider the ability of each cow to conceive regularly to ensure that she produces a calf annually. In addition, cows should be evaluated on their ability to calve without assistance and nurse or raise a healthy calf to weaning.
- 2) **Market Factors:** With a clear understanding of the market trends producers have an opportunity to realize significant value in cull cows. For example, most producers make culling decisions at the time of pregnancy diagnosis (or in the fall for a spring calving herd). At that time they tend to market their cull cows as slaughter cows without any realization that this is the time at which most cull cows are marketed, which saturates the market and decreases the value. Therefore, strategically managing cull cows and marketing them when cull cow (slaughter cow) prices are higher would be a more economically desirable alternative.
- 3) **Herd Composition:** Managing herd composition relies on future culling decisions and future herd size considerations. For example, culling a high percentage of older, less productive cows one year and replacing those cows with a similar number of young cows will reduce the number of cows selected for culling in future years; however, after five or six years the culling percentage will begin to increase as cows become older and become less productive. Therefore, significant thought needs to be taken into account when making large herd composition changes.
- 4) **Management Factors:** These factors make potentially significant economic changes to the culling strategy. The primary example is the use of pregnancy diagnosis. A majority of cows culled from the herd are those cows that fail to become pregnant and calve to produce a healthy calf at weaning, yet pregnancy diagnosis remains an under utilized management technique. Identifying nonpregnant

cows as soon as possible after the breeding season allows producers to make culling decisions that will have significant economic impact. In a spring calving herd nonpregnant cows can be eliminated in early fall when cow prices are greater than late fall and producers do not need to feed the cow valuable feed resources for an additional six to ten months before realizing that they have fed \$150 to \$400 feed to feed a cow that has not produced a calf. Other management related factors are nutrition related on strategically feeding feed resources to cows at cost effective prices to sell cows in good condition to realize positive economic value. An often overlooked management factor is weaning time, such as early weaning. By early weaning producers can enhance the body condition of their cull cows faster before sale time and thus increase the value of the culled cow.

- 5) **Cost of Production Factors:** Naturally cost of production should be on the mind of every producer. For example, feed requirements are greater for younger cows than older cows. The culling decision needs to weigh the merits of cost of production on the culling decision. Further costs that should be considered are those related to calving season and the cost of

production for fall or spring calving seasons and the costs associated with feed requirements, labor costs, reduction in fertility, etc.

Making a decision to cull should be calculated to ensure that the optimum economic return can be realized. No culling decision can be made without a sound record keeping system to understand production and fertility history of cows. In addition, culling should not simply be a choice to eliminate poor animals from the herd, but also to enhance the economic return of a valuable income stream, and to plan for future management and market strategies.

Producers should consider the advantages of pregnancy diagnosis, early weaning, and strategic feeding to enhance the value of their cull cows. In addition, they should also focus on the market history and future market trends prior to simply accepting poor cattle markets and submitting cattle to an auction when prices are low. To assist in making culling decisions producers are encouraged to look at the following website (<http://ag.arizona.edu/AREC/cull/culling.html>) which is a decision aid tool to assist in making culling recommendations for various scenarios. Feel free to contact the University of Minnesota Beef Team for further questions.