

## **Culling Practices in Beef Cow-Calf Operations**

Cull cows make up 15 to 20 percent of the beef cow-calf herd income. They also represent lost production potential if they are being culled before they reach the end of their productive life.

Heifers that do not breed back after their first calf are particularly important because they have the best genetic and production potential. If producers can minimize forced culls (those due to non-pregnancy, disease, etc.), they will retain eligible females in the herd longer and potentially be more profitable. Genetics can also be improved by culling older animals instead of the younger females that represent the best genetics.

The USDA's National Animal Health Monitoring System (NAHMS) collected data on culling practices in beef cow-calf operations. The NAHMS Beef '97 Study included 2,713 producers from 23 of the leading cow-calf states<sup>1</sup>. This study represented 85.7 percent of all U.S. beef cows on January 1, 1997, and 77.6 percent of all U.S. operations with beef cows.

The NAHMS Beef '97 Study showed that four major reasons for culling cows were age or teeth, pregnancy status, economics, and poor production. Of the cows culled in 1996, 39.8 percent were culled because of old age or bad teeth (Figure 1). Approximately one-fourth of cows (24.3 percent) were sold because of pregnancy status and 18.5 percent were sold for economic reasons (drought, herd reduction, or market conditions). Only 5.7% of cows were culled for poor production.

Elective culling allows the producer to remove animals that are poor producers or do not fit into the operation

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August 1999

because of size or temperament. Such practices improve overall performance of the herd by replacing poor producing animals with young cows that have high potential. Unfortunately, many producers are forced to cull other cows first and end up retaining poor producers or old cows to maintain herd size.

While only one-third of all cows sold were culled because of age or teeth, 57.8 percent of operations sold some cows for those reasons (Figure 2). Approximately

Figure 1 Percent of Cows Sold by Reason

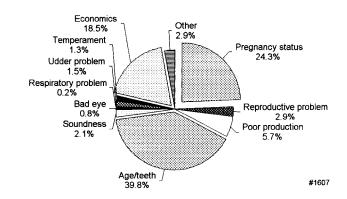
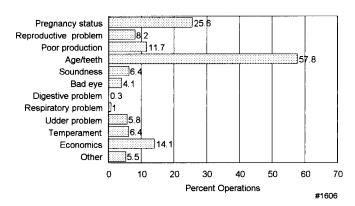


Figure 2 Percent of Operations That Sold Cows by Reason Culled



<sup>&</sup>lt;sup>1</sup>West: California, Colorado, Montana, New Mexico, Oregon, and Wyoming.

Northcentral: Kansas, Nebraska, North Dakota, and South Dakota.

Southcentral: Oklahoma and Texas

Central: Arkansas, Illinois, Iowa, and Missouri.

Southeast: Alabama, Florida, Georgia, Kentucky, Mississippi, Tennessee, and Virginia.

one-fourth of operations (25.6 percent) chose to cull open cows. Only 14.1 percent of operations culled cows for economic reasons and 11.7 percent culled cows for poor production.

Size of operation had considerable impact on the reasons for culling. Of the main four reasons for culling, larger operations were more apt to cull cows in all categories, except economics (Figure 3). Of particular interest is the effect of size of operation on production as a reason for culling. Over 25 percent of operations with 300 or more cows culled cows for poor production compared to only 8.6 percent of operations with under 50 cows. Over three-fourths of operations with 300 or more cows culled cows for age/teeth and over two-thirds culled cows for pregnancy status. Only 2.1 percent of operations with 300 or more cows culled cows for economic reasons. This fact is in part due to the flexibility larger operations have in culling cows for other reasons to meet their perceived economic concerns.

Region of the country also had a effect on reasons for culling cows. A higher proportion of cows culled in the West and Northcentral regions were due to pregnancy status than other regions of the country (Figure 4). On a percentage basis, producers in the Northcentral region electively culled more cows (13.4 percent) for poor production. Producers in the Central and Southeastern regions were more likely to cull older cows. Almost half (47.8 percent) of cows sold in the Southcentral region were culled for economic reasons. This finding probably reflects the severe drought in that area in 1996.

In today's agricultural business setting, producers need to make good culling decisions to remain profitable. Keeping the best genetics in the herd is important to meet the challenges of producing in the competitive market. One way to achieve this is to maximize elective culls to improve the pounds of calf weaned per cow exposed to breeding by increasing both number of calves weaned as well as increasing weaning weights. Open cows may have superior genetics, although there is no advantage if they are not producing calves.

## Figure 3 Percent of Operations that Sold Cull Cows by Reason for Culling and Herd Size

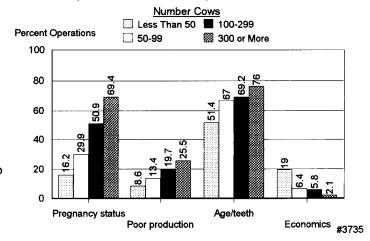
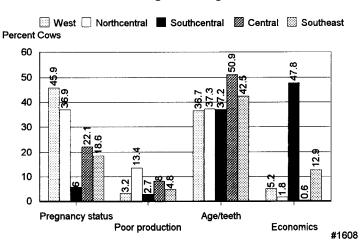


Figure 4 Percent of Cows Sold by Reason for Culling and Region



By optimizing reproductive performance, producers can decrease forced culls and electively cull cows that are poor producers, have a bad temperament, or are past their productive prime. A sound management and business plan can also limit the number of culls forced on a ranch because of economic constraints.

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