INFO SHEET
Veterinary Services

United States Department of Agriculture
Animal and Plant Health Inspection Service
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Economic Opportunities for Dairy Cow Culling Management Options

Recent reports indicate that **dairy cows account for about 8 percent of U.S. domestic beef production[1], 25 percent of U.S. nonfed beef available for consumption in the U.S.[1], and about 18 percent of U.S. ground beef[2]**.

Due to a lack of national information about cull dairy cows, the USDA's National Animal Health Monitoring System (NAHMS) included an objective in the Dairy '96 study to describe dairy culling management practices and characterize on-farm management of cows that represent this significant portion of human beef sources. NAHMS conducted the Dairy '96 on randomly selected operations that represented 83.1 percent of U.S. milk cows. Data were collected from 2,542 dairy producers from 20 states[3] who voluntarily participated in the program and responded to an administered questionnaire.

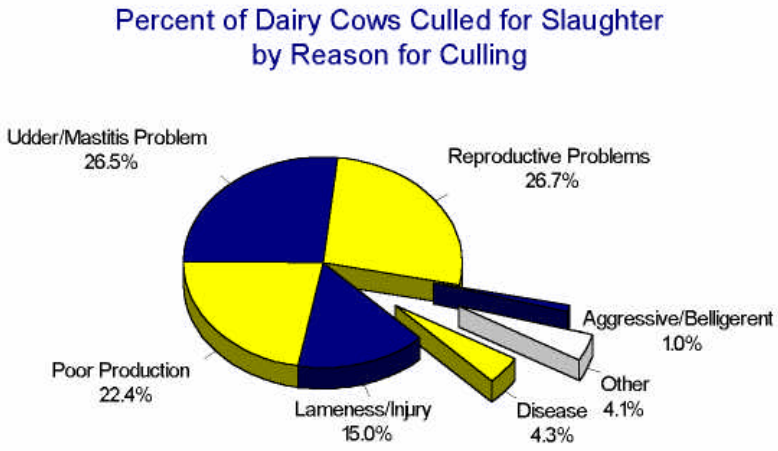
Dairy '96 results showed that **while producers culled dairy cows for a variety of reasons in 1995, most culled dairy cows for reasons associated with their ability to profitably produce high-quality milk and calves**. Producers removed the majority of dairy cull cows for reproductive problems, udder or mastitis problems, poor production unrelated to disease, or lameness or injury (Figure 1). These reasons for culling are not usually related to ill health or systemic disease, which might preclude their wholesomeness as a human food source. Other management practices not addressed by this study also impact beef wholesomeness, such as use of antibiotic withdrawal periods, as directed by label.

Producers of larger herds tended to cull a larger percentage of cows for low production that was unrelated to disease (28.1 percent of cull cows from herds of 200 or more versus 19.2 percent from herds with fewer than 100 cows.) The higher level of voluntary culling for milk production, compared to involuntary culling due to disease, gave these larger herds the opportunity for a comparative advantage of increased genetic gains.

Almost all cull dairy cows in the U.S. are intended for beef slaughter. Only about 4.5 percent are sent to other operations for dairy production or other purposes.

Nearly 77 percent of cows intended for beef slaughter were sent to markets, auctions, and sale barns, while 22.0 percent were sent straight to slaughter facilities (Figure 2 on the next page).

Figure 1



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1 G.C. Smith, et al (ed.). Final Report of the National Non-fed Beef Quality Audit - 1994. Colorado State University. Fort Collins, CO.
2 Escherichia coli 0157:H7 - Issues and Ramifications. 1994. USDA:APHIS:VS, Centers for Epidemiology and Animal Health, Fort Collins, CO.
3 Participating states: California, Florida, Idaho, Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Missouri, New Mexico, New York, Ohio, Oregon, Pennsylvania, Tennessee, Texas, Vermont, Washington, and Wisconsin.

This information indicates a relatively high degree of transportation involved in the movement of cull dairy cows to slaughter plants. Increased transportation raises risks of problems such as nutritional and environmental stresses, exposure to disease pathogens from other cattle, and bruising.

Marketing methods, however, varied by U.S. region as dairy producers in the southeast were less likely than those in other areas to send cull dairy cows directly to slaughter plants (Figure 3).

Thirty-eight percent of herds with production levels above 20,000 pounds per cow per year used a milk production break-even level to determine when to cull dairy cows, compared to fewer than 20 percent of herds with rolling herd average levels of less than 16,000 pounds (Figure 4). Producers with herds producing more than 20,000 pounds of milk per cow per year reported an average break-even level of 39 pounds compared to 29 pounds for herds producing less than 16,000 lbs.

The 1994 National Nonfed Beef Quality Audit identified timing of cow removals as an economic opportunity area for U.S. dairy producers. The report recommended dairy cows be culled as soon as possible after injury or recovery from acute disease problems (and if treated, after the drug withdrawal period) or as soon as production reaches a farm-specific break-even milk production level in other instances. Use of specific milk production levels to determine timing of culling, along with monitoring and management of cow health to market cows earlier, can prevent losses due to condemnations at slaughter. Carcass condemnations reportedly represent a $12 loss to the producer and the marketing and processing industry for every nonfed bovine marketed.

NAHMS collaborators on the Dairy '96 study included the National Agricultural Statistics Service (USDA); State and Federal Veterinary Medical Officers and Animal Health Technicians; and the National Veterinary Services Laboratories (USDA:APHIS:VS).

Other information from the Dairy '96 is available on culling practices. For more information, contact:

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Figure 2

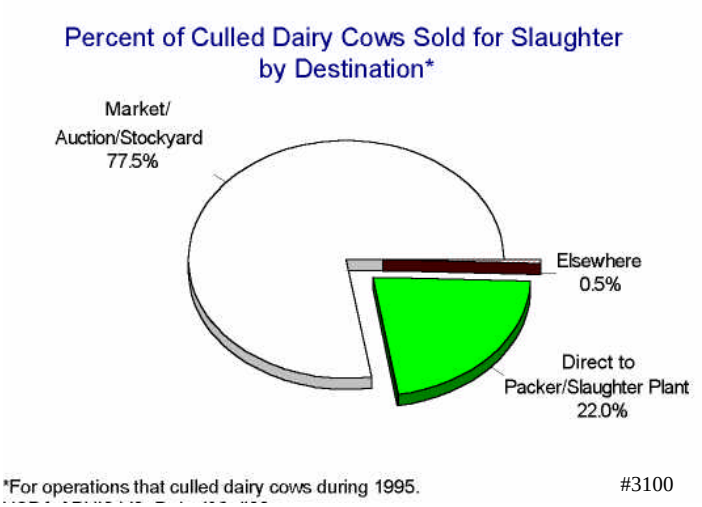

Figure 3

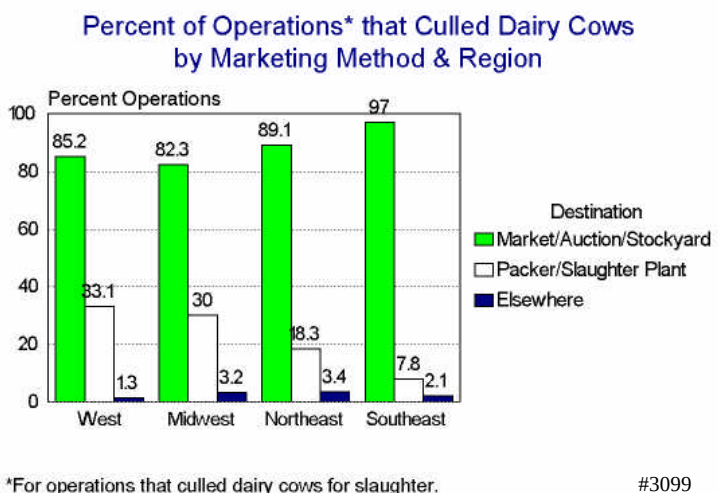

Figure 4