

Trends in Disposal Reasons

Every year, roughly 200,000 Holstein cows are removed from herds enrolled on milk recording in Canada. Through an extensive data recording system managed by Canadian DHI partners, specifically CanWest DHI and Valacta, disposal reasons are provided by the herd owner for every cow that leaves the herd. Currently, there are over 30 different codes that can be used to identify the main reason for disposal on an animal-by-animal basis. To simplify analysis and interpretation of trends, various codes can be grouped to form seven broader disposal reason categories. Canadian Dairy Network (CDN) recently summarized trends in disposal reasons that are presented in this article.

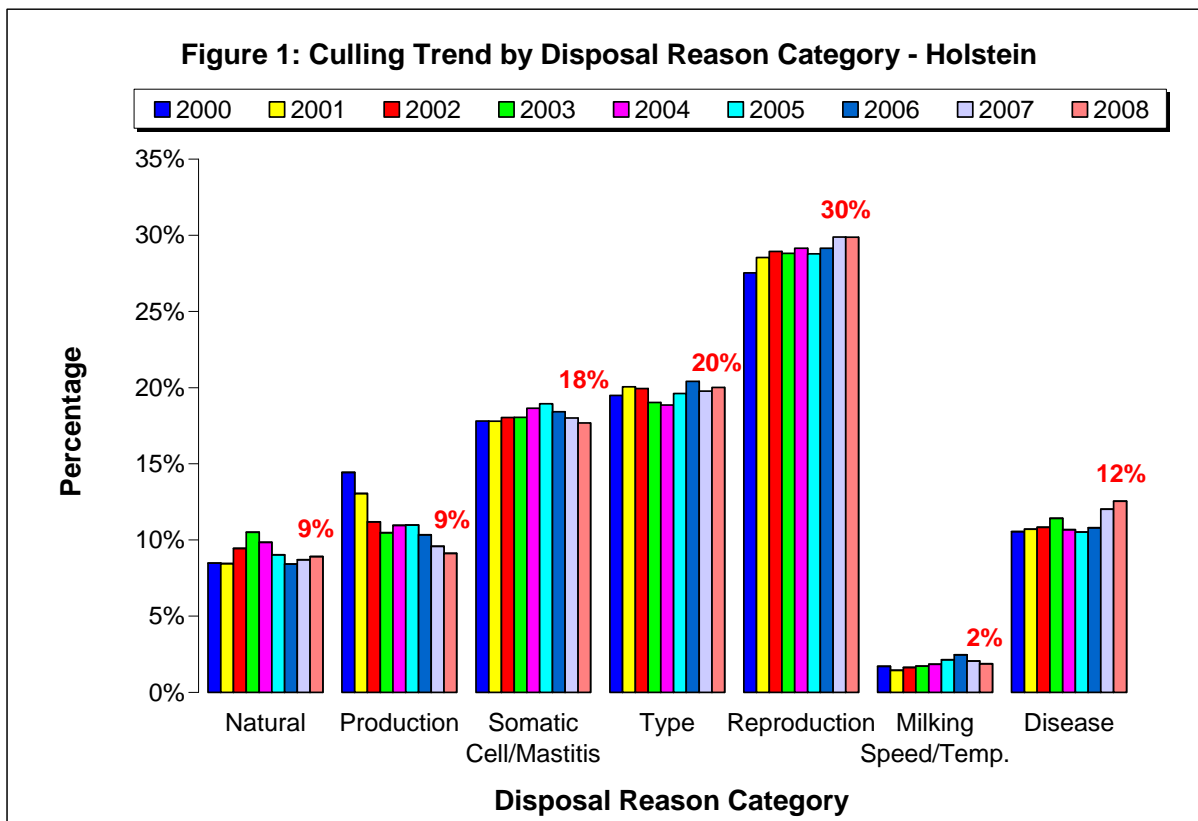
Analysis Description

Although the Canadian DHI partners are able to collect disposal reasons using the large variety of available codes, the fact remains that not all producers accurately report the reasons for cows leaving their herd. In general, approximately 14% of cows leaving milk recorded herds are identified as having left for an unknown reason while another 4% are coded as having left for a reason other than those available to report. Considering all other cows with a valid disposal reason, the proportion sold for dairy purposes or export is generally over 20% on an annual basis. When analyzing trends in disposal reasons over time, it is important to exclude all animals removed for any of the above reasons so that one can appropriately evaluate trends within each category. In general, this represents a group of 120,000 to 140,000 cows per year.

Disposal Trends

Figure 1 provides a visual description of the culling trends for Holstein cows leaving milk recorded herds within the seven broad categories of disposal reasons. For cows that died of natural causes or injury, there has been little change since 2000 representing 9-10% of disposals. Other categories with little trend over the years include cows culled for reasons associated with type traits, which includes udder breakdown, injured teats, feet and leg problems or poor conformation, at about 20%, as well as undesirable milking speed or milking temperament, at 2-3%.

One of the most significant changes over time is the percentage of cows culled for production reasons, which has steadily decreased from 14% on 2000 to 9% in 2008. Another interesting trend is observed for high somatic cell count and mastitis, which rose slightly from 2000 to 2005 but has since decreased again to 18% of culled cows in 2008. As expected, the two disposal reason categories that have seen an increasing trend include cows culled for reproductive and calving problems, from 28% in 2000 to 30% in 2008, as well as cows culled for illness and disease, which shifted from 10% to 12% during the 8-year period studied.



When looking closer at the various disposal reason categories, the CDN analysis also revealed that culling for Milking Speed or Milking Temperament is the first hurdle for cows to pass to stay in the herd, with culling for production being the second one during a cow's productive life. In Canadian Holsteins, cows culled for these reasons have an average productive life of 24 months for the milkability traits and 32 months for production. Cows culled for any of the other categories of disposal reasons, excluding natural causes, showed similar but much longer periods of productive life, indicating that Canadian Holsteins tend to fail producer standards for reproduction, functional conformation, somatic cell count/mastitis and disease at older ages, after at least three years of productive life. Cows being removed from the herd for natural causes such as death or injury are clearly, the oldest group to leave the herd at almost 7 years of age on average.

Summary

It is well known that reproductive and calving problems have been the major reason for dairy cattle disposals in Canada and most countries around the world. Of equal interest to dairy producers today is the increasing trend of disposals due to illness and disease. Given that culling for production has decreased in relative terms, one can speculate that the Canadian Holstein cow has reached such high productive capabilities that most cows meet the requirements for staying in the herd so reasons for disposal have shifted to areas that decrease revenue and increase expenses. These trends are very much in line with the expected evolution of the Canadian LPI formula in years to come, which will balance high production with long productive life and decrease costs due to reproductive, calving and disease problems.

Author: Brian Van Doormaal
 Date: August 2009