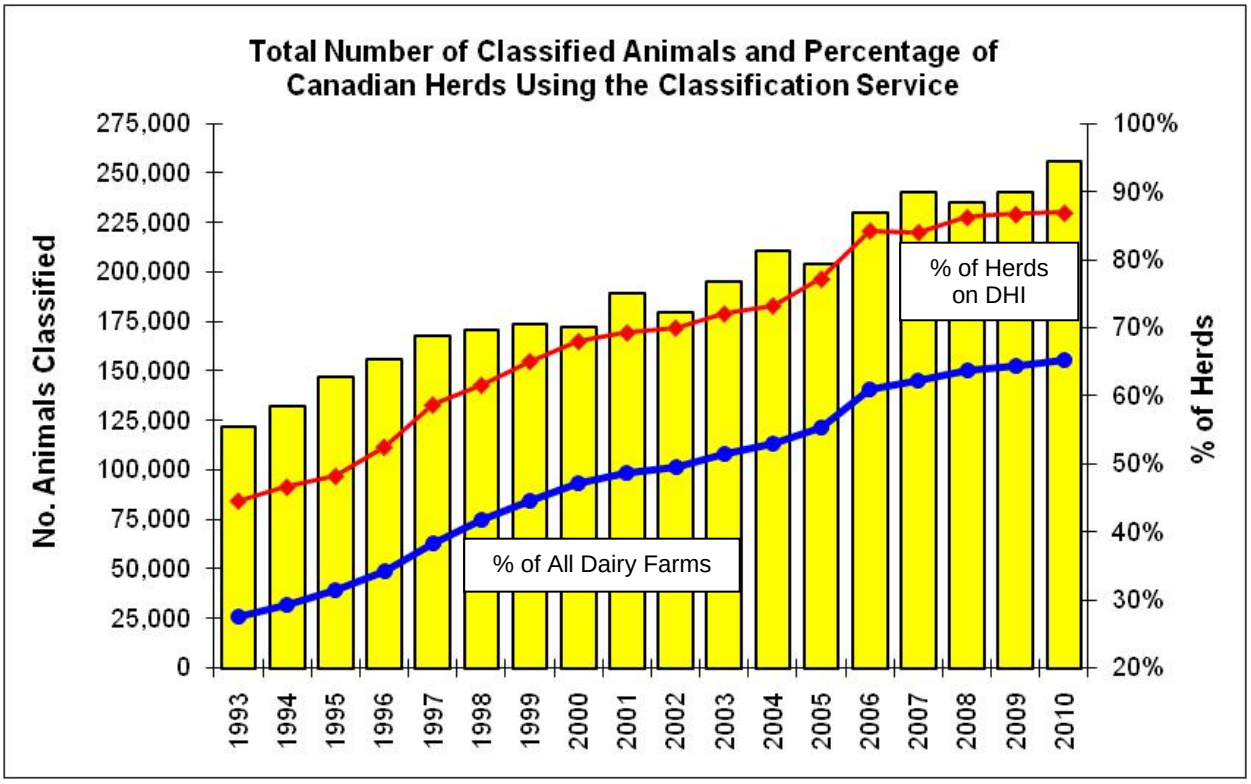
Réseau laitier canadien
Canadian Dairy Network

Importance of Functional Conformation

The Canadian Holstein cow exemplifies world-class dairy quality and strength enabling her to sustain a balance of production and longevity in one complete package. The main reason for her success rests on improvements made to her functional conformation achieved through generations of committed participation in the classification program. As producers demand increasing returns on their investments, information gained on classification day has armed these decision-makers with the crucial tools required to advance production efficiency and increase profits. Consistently regarded as the most important and prominent service provided by Holstein Canada to all dairy breeds in more than 8,500 herds across the country, assessment of functional conformation facilitates the development of a cow's natural ability to produce higher volumes of milk over longer lifetimes.

Classification is an essential management tool for any highly profitable dairy operation. Producers cannot expect their cows to endlessly increase output and conceive easily without equipping them with an effective way to withstand the stresses of modern confinement systems. Classification can be used to improve herd management in many ways including early identification of cull candidates, assessment of heifer rearing program, development of herd strengths and weaknesses and optimization of sires for mating. The most effective way to use this tool is to instil a herd philosophy that optimizes functional conformation generation after generation through dedicated participation in the classification program. Cows that have good conformation produce efficiently with lower maintenance and are more resistant to breakdown and disease. Investment in the service is minimal compared to the payback that is rewarded over the lifetime of the animal and the herd.

The graph displays the number of cows classified in Canada from 1993 to present. Since 2005 when the All-Breeds Classification program was introduced, approximately 6% (~15,000) of the animals classified per year have been of a breed other than Holstein. Participation in the program has grown steadily from 28% of all Canadian dairy farms in 1993 to more than 65% that are currently using the service today. Amongst herds enrolled on DHI milk recording, market share is significantly higher at 87% and has grown from 45% in 1993. Although the total number of dairy herds in Canada has declined each year, the percentage of herds remaining that opt to participate in classification is continually mounting, especially if those herds are also enrolled on milk recording. This fact combined with the persistent trend in expansion of herd size contributes to the steady rise in total number of cows classified per year. In 2010, an all-time record high total of 255,901 animals were scored in Canada, of which 239,651 were Holstein.



A team of progressive and innovative breeders and advisers form the Classification Advisory Committee of Holstein Canada. This committee's mandate is to ensure that the Association is effectively advancing the functionality of Canadian Holsteins by delivering outstanding type classification and related field services. In accordance with its most recent recommendation and Holstein Canada Board approval, Thurl Placement will now be scored as the 24th standard linear trait. Since 2009 this trait has been scored on a research basis but will now contribute 13% emphasis in the overall assessment of rump for Holstein. Placement of the thurl in relation to the hook and pin bones helps determine correct rump structure, which can facilitate easier calving and, when combined with ideal feet and leg conformation, enable the cow to be freely mobile. Although highly related to Rump Angle, Thurl Placement brings additional benefit to the description of functional conformation. Canadian Dairy Network will commence plans for computing genetic evaluations for Thurl Placement as a new and valued conformation trait.

In this rapidly evolving era of genomics, the value and need for conformation assessment is often questioned. Traditionally, sires required many daughters to be classified in order to reach a confidence and reliability in their proofs in order to be used as proven mates. At birth, we now have the capability to predict a heifer's genetic potential with an average of 66% reliability by including information about her unique DNA profile with the superiority expected to be transmitted from her parents. In the past, we only achieved 54% reliability in predicting a cow's genetic potential even after she has started to milk and was classified. ***Make no mistake***, even though genomic evaluation brings a great deal of additional confidence to the table when making early culling and selection decisions for heifers, the physical assessment of her conformation is even more vital allowing us to confirm if her genetic predictions have been realized.

Unbiased conformation appraisal of all females by a team of highly skilled and professional classifiers remains the backbone to how we are able to provide accurate genetic and genomic evaluations of type traits to identify the best sires and dams to breed the next generation of great cows.

Summary

Passion, leadership and undeniable breed improvement; these are the fundamentals of the Canadian classification program respected worldwide that boasts a unique blend of science with practical knowledge of dairy cattle structure. Accurate, consistent and objective appraisal of conformation is the most valuable tool breeders can utilize to optimize production efficiency and increase longevity in their herds. Participation in the program continues to grow as Holstein Canada strives to deliver a quality and valued service to a diverse demographic of producers eager to make more informed management decisions.

Author: Bethany Muir, Holstein Canada
Date: June 2011