Journal of Dairy Science® offers collection on balanced breeding selection for dairy cows

Online collection provides insight into modern methods for breeding selection

Champaign, IL, June 13, 2016 – The Journal of Dairy Science (JDS) is a leading source of scientific information on dairy breeding objectives and quantifying selection responses to new selection indices. As a service to its readership, the journal has assembled a collection of 21 research articles on this subject, and ADSA has made all articles in this collection freely available for 30 days due to the importance of the subject matter. This special collection of JDS articles highlighting major advances that have been made in health, longevity, and reproductive traits is hosted by Elsevier and is available online at http://www.journalofdairyscience.org/content/balancedbreeding.

Dairy cows were traditionally selected primarily for increased milk production with secondary consideration of other traits. As more effective tools and new traits have become available, selection processes have evolved. Modern methods emphasize the use of varied selection criteria to create a balanced approach for genetic selection. Selecting a healthy and productive cow is the priority, and new selection indices emphasize health, longevity, and reproductive traits. If one considers selection indices throughout the world, the weighting for milk production is typically less than 50%; in the widely used Net Merit selection index, milk production is weighted at approximately 40%.

Researchers have incorporated new data to enhance the selection indices now used in most countries to include fertility, longevity, and udder health. With the implementation of genomic selection, researchers have proactively developed complex breeding tools to improve animal health and welfare and respond to problems such as limited resources, global warming, and challenging farming conditions.
“The dairy industry has long recognized that selecting cows for health, longevity, and reproduction as well as milk production would create a more functional cow for the industry. New evaluations were developed and incorporated into modern genetic selection indices with a focus on healthy cows. The new era for genomic selection will accelerate the progress that is being made. The next generation of dairy cows will be highly productive, fertile and live healthy lives, with enhanced welfare and less environmental impact,” Matt Lucy, editor-in-chief of Journal of Dairy Science, said.

Journal of Dairy Science is committed to publishing scientific research that helps inform industry and maintains special collections on topics that are of interest to the dairy community. For more information, please visit the journal website, http://www.journalofdairyscience.org/.

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