Changes to evaluation system (August 2008)

Service sire conception rate

By Duane Norman, Melvin Kuhn, Jana Hutchison, and Jan Wright

Bull fertility evaluations called Estimated Relative Conception Rate (ERCR) were provided to the industry by Dairy Records Management Systems (DRMS) from 1986 to November 2005. In May 2006, AIPL assumed responsibility for evaluation of U.S. bull fertility. As an initial step, AIPL implemented the ERCR evaluation as previously computed by DRMS. Since 2006, the scope of the data was broadened from regional to national, and the model and edits were improved to increase reliability. Those efforts are ready for implementation for August 2008. The new evaluation will be called Sire Conception Rate (SCR) and will be based on conception rate rather than non-return rate. SCR will also utilize multiple services per lactation (up to 7), rather than first service only. Data will be primarily from 3 of the 4 major DRPCs, which is also an enhancement relative to previous evaluations. For the sake of improving reliability, the evaluation will also utilize what has been called an "expanded service sire term." This involves estimating components affecting bull fertility separately and then formulating the prediction as a sum of the components. In contrast to ERCR, SCR will be reported with one decimal. Evaluations will be expressed as deviations from the overall mean; an SCR of 1.2, for example, means that the bull is 1.2% above average, -1.2 would mean he is 1.2% below average, and 0.0 would mean he is average. All 6 traditional U.S. dairy breeds will be evaluated, provided sufficient data are available. To be publishable, a bull must have an AI status other than inactive and cannot be more than 13 years old. Holstein bulls must have at least 300 total breedings, 100 breedings in the most recent 12 months, and at least 10 herds. Minimum number of matings and herds are somewhat less for the other breeds, in order to allow for more publishable bulls. For more details, refer to http://aipl.arsusda.gov/reference/arr-scr1.htm.

Genetic evaluations for clones

By Paul VanRaden and Gary Fok

Cloned bulls now receive the same genetic evaluation as the clonal family member the with highest reliability. Generally this is the original animal that the others were cloned from. All fields in format 38 except identification fields are copied, such as predicted transmitting abilities, reliabilities, daughters, herds, etc. This same policy was already introduced in the Holstein Association Sire Summaries (red book) beginning in April 2008. A “3” in column 363 of format 38 indicates a cloned bull; the bull identified in column 530-546 indicates the source of the evaluation. Please note that column 363 is also used to indicate the Interbull preferred ID code.

When genomic evaluations are introduced, evaluations that combine daughters and records from all clones will be provided instead of choosing the one with highest reliability to represent the others.

More traits of foreign sires used in cow evaluations

By Paul VanRaden, George Wiggans, and Gary Fok

Procedures to incorporate multi-trait across country evaluations (MACE) of sires into daughter evaluations have been extended to more traits. Yield traits from the previous evaluation were incorporated since November 1999, and these same procedures are now used for productive life, somatic cell score, and daughter pregnancy rate. NOTICE: All coding for this project is not yet complete as of July.

Reporting genetic recessive codes

By George Wiggans and Leigh Walton

Genetic recessive codes are being provided for more bulls. Previously these codes were provided for bulls with a USA identification (ID). Now all bulls that have recessive codes provided by the Holstein Association or have codes included in their names will have their codes included in the recessives codes field. The name is searched for Brown Swiss, Jersey, and Holstein bulls with foreign ID. This change extends reporting to RF-ID with 840 country codes also.