

Changes to Evaluation System - November 2005

Calving ease edits

By George Wiggans, Curt Van Tassell, and Laura Thornton

Edits for herd years with abnormal distributions of calving ease scores were updated to be more neutral with respect to herd size. This was accomplished by dividing the goodness of fit statistic by twice the herd size. The edits introduced in May 2005 had removed proportionally more data from large herds than from smaller herds. This research was funded by the National Association of Animal Breeders, and further research to transform and include data with abnormal distributions instead of excluding these data will continue.

Owner sampler edits

By George Wiggans

Edits for percentage of cows with valid identification were relaxed for large herds. Records in herd-years with more than 100 sire-identified cows are now retained even if the percentage of cows with valid identification in the herd is less than 40%. Previously the edit for valid identification depended only on the percentage of cows and not the number of cows in the herd year.

Predominant breed for crossbred animals

By Paul VanRaden and John Cole

Two new fields that report breed composition of crossbred animals were introduced. The predominant breed and the percentage of the predominant breed are reported for animals whose pedigrees include more than one breed. These fields are in bytes 380-381 and 450-451 of [format 38](#) and bytes 362-365 of [format 105](#), and are blank for purebred animals. If two breeds contribute equally, such as a cow with 50% Jersey and 50% Holstein genes, the sire breed is reported as the predominant breed. For each crossbred animal, more detailed information such as percentage of heterosis, breed codes of ancestors, and fraction of each breed is stored in the AIPL database. Currently, only a small fraction of evaluated animals are crossbred. In the future, edits may be relaxed and the animal model revised to allow many more crossbreds to receive genetic evaluations.

Type composites for non-Holstein breeds

By Paul VanRaden

Udder composite and feet and leg composite values are now sent to Interbull for all breeds because composite traits are now published by several U.S. breed associations. Reliabilities of evaluations may increase in other countries that receive Interbull conformation evaluations and use MACE for composites in their selection programs. This change will have no impact on U.S. rankings because the composite traits used within the United States continue to be calculated directly from MACE for individual linear traits rather than from MACE for composite traits.
