



Changes in USDA-DHIA genetic evaluations (November 1999)

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Foreign evaluations of parents included in cow evaluations

The procedure used to update bull evaluations with foreign evaluations of parents was extended to cows. New parent averages are calculated for cows with:

- A sire that has an Interbull evaluation designated as official in the previous evaluation, or
- A dam with an evaluation that was already requested from another country because the dam is a bull dam.

The update is restricted to cows born during the preceding 10 years for which the new parent average information would increase the reliability by more than 2. The daughter equivalents for parent average and the entire evaluation are calculated. The contribution from records and progeny is calculated by subtracting the old parent average using weights derived from the daughter equivalents. This contribution then is combined with the new parent average using the daughter equivalents from the new parent average. The PTA's so calculated are used to calculate the indexes for net merit dollars, cheese merit dollars, and fluid merit dollars, which are used to compute percentiles. The U.S.-only evaluations for cows that have updated evaluations are stored in the [format 105](#) fields that are designated as "evaluations used for relatives."

In format 105, the foreign contribution codes are defined as:

- 0 = No foreign contribution.
- 1 = Contribution from Interbull sire.
- 2 = Contribution from foreign dam.
- 3 = Contribution from both an Interbull sire, and a foreign dam.
- 4 = Evaluation is converted from another country.

Designation of usable records for cows that change herds

For a cow that changes herd during a lactation, the record that is designated as usable in the calculation of genetic evaluations now depends on the number of tests that occurred in each herd. The earlier herd is given a preference of one test and is selected in case of ties. The tests are not required to be consecutive; therefore, a cow can return to an earlier herd and contribute to the selection of that herd. The best prediction procedure is applied to data from only a single herd when calculating a lactation record.

Foreign identification may be preferred over U.S. identification

Breed associations now may designate the registration number in another country as the primary identification. Previously, the U.S. identification always was used if one was available. Over 180 Holstein bulls registered in both the United States and Canada now are identified by their Canadian identification. The U.S. identification for those bulls is listed in the fields for "bull's dual registry breed and identification number" in [format 38](#) and in the fields for "bull identification in the country providing this information" in Interbull [format 031](#).