

AIPL Changes to Editing System - August 2002

Detection and adjustment of outlier test-day yields

By George Wiggans

Test-day yields are adjusted to be in the range of 60 to 150% of expected yield. Observations outside this range are increased or decreased to the appropriate threshold. The expected yield is based on the previous yield or in some cases the adjacent or following yield. When yields from only two tests are available, the herd average is used. To calculate the expected yield, the preceding yield is adjusted using a slope from an equation based on days in milk (linear and quadratic), test-day yield, and the interaction between days in milk and yield. Test-day records with a "sick" code and reported yield of <10 pounds of milk are ignored. Other test-day records with a sick code may be used without adjustment, or the floor value (60% of expected yield) is used. The limits were designed to identify about 1% of tests as abnormal. The use of a floor or ceiling does not cause information on abnormal yield to be discarded, but its influence on estimated lactation yield is reduced. Because this system treats every observation as a potential abnormal yield, the detection of outlier yields does not depend on field use of the sick code. One motivation for this procedure was the many reported test-day records with over 100 pounds of milk for which the cow was designated as sick. With the new system, those yields will be used. The web query that displays test-day yields for cooperators also displays the adjusted yields if an adjustment has been made.

Addition of initiation code to lactation record

By George Wiggans

A normal calving is required for a record to be included in genetic evaluations. Historically, records that started with an abortion or where the date that the cow entered the herd was reported as the fresh date received a termination code of 9. This code prevented reporting the actual termination of the record. An initiation code was added to the lactation record and the database. For historical data, the termination code was used to determine the value of the new initiation code. Checks were added to the editing system to force consistency between consecutive records in regard to abortions. If the initiation code indicates that a record started with an abortion, then the previous record must have ended with one if the cow was still in milk. Similarly, if the previous record ended with an abortion, then the following record must have started with one. Because the termination code of 9 has been removed from the database and replaced with a 0, the 9 code will not appear in any output files such as the cow evaluation format 105.
