

DCR reflects milk records' accuracy level

Not all milk production records are created equal. In the days when all dairies used a milk tester who came unannounced monthly, milk production records were basically created and considered equal. DHIA's now offer a variety of milk testing options to accommodate various management styles, facilities and desired services.

To level the playing field, Animal Improvement Programs Laboratory (AIPL) developed data collection ratings (DCR), which place more weight on more accurate (actual) data. This weighting system gives numerical values that indicate the amount of information included in a production record, indicating its relative accuracy. Frequency of testing, percentage of milkings weighed and sampled, and the number of certified supervised milk tests impact DCRs.

"Traditional" milk testing is the base level for comparison to other test types and carries a DCR value of 100. A value of more than 100 is possible when testing plans with supervised milk weights and/or component samples occur more frequently than monthly. Testing plans with fewer supervised milk weights and/or component samples than traditional milk testing plans carry DCRs less than 100. Unsupervised test plans are weighted 75% of supervised test plans and receive a DCR value no higher than 75.

A DCR reflects an individual cow production record and is based on a standard 305-day lactation. Individual DCRs may be used to estimate a herd DCR, assuming each cow is tested according to the herd's milk testing plan. Individual cows may have DCR ratings higher or lower than the herd's value, if they participated in greater or fewer certified supervised milk and/or component tests than expected.

For about a decade, USDA has used milk production test type and DCR to determine genetic information for sires and

dams. Dairy record processing centers use test type to determine how lactation records are calculated. Breed associations use a variety of criteria, including test type, DCR and whether or not tests are supervised by certified testers, for considering records in award programs. AI organizations use DCR values and test types when determining if dairy records qualify for young sire rebate programs.

At Accelerated Genetics, for example, the DCR becomes a multiplier in determining the amount of monetary credit given to the cooperative's young sire herds for each daughter of every young sire that makes a production record. "The higher the DCR, the more credit a dairy receives," explained Devan Funk, genetic development manager. A young sire daughter's record with a DCR of 100 gets the full amount of credit for her information that is used in her sire's genetic evaluation.

With unsupervised milk production records included in the national genetics evaluations, a larger audience became interested in helping AI organizations sample bulls. "DCR is a fair way to reward herds for the amount of contribution they provide to our sire sampling," Funk remarked. When the DCR on a young sire daughter's record is less than 100, the owner gets less than full credit for her information.

"We pay attention – to some degree – the DCR on elite cows," Funk noted. "Accelerated Genetics personnel prefer to work with bull dams carrying high ratings. However, we do not have a hard-and-fast rule on a minimum level.

"The success a herd, or lack thereof, has in proving out good sires far and away exceeds any DCR we can look at, in determining which cows we buy bulls from." Funk stated. "The track record on bulls put into AI takes credence over most everything else."

* View sample DCR values, based on milk testing plans, at www.dhia.org/dbc_articles.asp

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