DHI Milk Samples - Milk Pregnancy Testing

A few ounces of milk holds a wealth of management and genetic information that can be analyzed and turned in data for use on dairy farms. Sure, there’s fat and protein percent, and SCC, but many dairy producers are getting even more information from milk samples — helping them detect diseases, evaluate rations and assess breeding programs.

"Milk samples taken from cows by milk recording organizations on test dates are an underutilized resource for dairy producers and recording organizations," stated Todd Byrem of Antel BioSystems, Lansing, Mich.

Milk Sample and Pregnancy Confirmation for Reproduction Management

Milk pregnancy testing is starting to come into the marketplace. It is interesting from a dairy farm perspective that more available information is able to be based on the milk sample and the ease of milk sample collection. Compared to traditional blood testing programs for pregnancy or diseases such as Johne’s disease, bovine viral diarrhea (BVD) and bovine leukemia virus (BLV), taking milk samples is far less costly and time consuming. Milk sample testing helps confirm pregnancy while eliminating animal sorting and restraining, palpation, blood draws, and can piggyback on transportation costs if the milk sample is already part of the DHI monthly sample collection.

The convenience of DHI milk sample collection and quickness of test results confirming pregnancy is coming into many dairy operations management systems. This testing complements current pregnancy detection methods by monitoring a pregnancy status and identifying open cows. Most pregnancy results are available 24 hours after the sample is taken. At the whole-herd level, improved milk pregnancy results can help sort animals for culling checks or re-breeding, cutting the amount of handling and allowing for better grouping of animals for management. Using milk pregnancy testing for pregnancy confirmation creates opportunities to reallocate producer and veterinarian time to better focus on other management areas.

“Time is of the essence” concerning the detection of pregnancy in dairy cows and a critical component of any dairy farm reproductive management program. Veterinarians and farmers use detection of nonpregnant (open) cows to make decisions about rebreeding or culling cattle. Managing calving intervals and cow flow is key for optimizing milk production and revenue for the farm. Increased profits come from this management of cow flow and reproduction.

Milk pregnancy testing uses ELISA technology, a rapid and trusted diagnostic method. ELISA assays offer an attractive mechanism to evaluate dairy herds for pregnancy. The test measures pregnancy associated glycoproteins (PAGs), to determine pregnancy status. PAGs are released by the placenta during pregnancy and are specific to pregnancy unlike some other chemical indicators, such as progesterone. A high level of accuracy (98%), comparable to palpation, ultrasound, and blood testing from the milk pregnancy test has been reported in field tests. The test is most effective from 35-days post breeding, and 60-days post calving, through dry-off.

By using the convenience of DHI milk sampling and analysis, veterinarians and producers have been able to implement successful testing strategies with absolutely no interference to their cows or daily farm operations. Don’t waste resources restraining and sampling cows for pregnancy or disease testing when answers can be found in DHI milk samples.