Butterfat test variations – what causes them?

AgSource occasionally receives questions from members if there are differences between milk plant and DHIA butterfat results. If there is a variation greater than 0.2% in milk plant butterfat and DHIA butterfat, here are some possible solutions:

- **Take into account percent butterfat variations between milkings.** In other words, make sure your milk plant and DHIA tests are “apples to apples” comparisons. Over 98% of all AgSource processed herds sample one milking per day on test day. Comparing the weighted average of one milking to a tank sample that may have two or four milkings is not a valid comparison. To do this correctly, the tank sample should have only the milk from the just completed DHIA test day. Frequently, there are wide variations in month to month DHIA percent butterfat averages when a different milking (morning, midday and night) is tested each month. Producers testing the same milking each month may also be having these fat test differences, but just don’t see them.

- **Listen to what the cows are saying.** AgSource members with the highest producing and healthiest herds constantly stress the importance of consistency to their success. If a herd has a large variation in butterfat tests from milking to milking, the cows are telling you there is a breakdown in consistency. This might be caused by inadequate prepping by one milking crew or it might be caused by wide swings in rumen pH during the day. In either case, the fat test variations are important information to act on.

- **Make sure the tank is agitated sufficiently before the sample is taken.** Check your tank, silo or tanker sampling guidelines and be sure they are followed. When the tank is empty, look to see if the sides are covered with fat globules. This may indicate the milk is not cooling fast enough.

- **Follow guidelines for proper sample mixing.** Different meters require different mixing procedures. For example if the meter flask has a cap it needs to be inverted 3 times, however if pouring, it must be poured six times.

- **Communicate to your DHIA Field Technician which cow’s milk is being withheld so it can be properly coded.** Four or five cows not being recorded as “Withdrawn” can have a very significant effect on all component measures especially in smaller herds.

- **Check for laboratory consistency.** Blame can fall on the laboratory if there is a butterfat discrepancy. Both milk plants and DHIA labs are required to have stringent controls. However, having the milk hauler split a sample and testing at the two labs can eliminate this concern.

AgSource is committed to providing all our members and customers accurate information. This commitment extends to providing accurate percent butterfat information. However in many cases, understanding the differences in milk plant and DHIA butterfat tests can be an opportunity to solve a bottleneck to a herd’s profitability.

(Note: AgSource processed reports include A/P factors that are applied to individual cow percent fat and protein values to adjust them for time of milking. However, these factors are based on average differences and are quite small. Also, this article focuses on butterfat variations. Protein percentages are generally much more consistent.)

Top Reasons to Test Each Month

**DHIA testing allows producers a great deal of flexibility.** Producers can choose when to test, what to test for, and how to test. However, choosing to test on a regular monthly interval can reap the most rewards for the herd. Here are the top five reasons to test each month:

**Reason 1:** Testing every month keeps the dairy producer and their consultants in charge of the herd’s management so they can make proactive rather than reactive decisions. In a practical sense, this means having the capability of identifying trends early, especially if the trends are not good. The importance of this is that spotting problems allows an AgSource member to fix the problem thereby eliminating future fresh cow, mastitis or other potential issues instead of having to treat and eventually cull many of these cows. All of this is dependent on accurate data collected on monthly intervals.

**Reason 2:** A monthly test interval allows managers to proactively spot problems before the problem becomes entrenched. Producers using longer test day intervals often wind up taking a historical approach to using records. They and their consultants look back and can guess when problems started.

**Reason 3:** There are several key early warning systems based on changes over the past month. A “New Infection Rate” of 19% or above is an indication that sub-clinical mastitis management needs immediate attention. AgSource’s Udder Health Management Summary can identify when sub-clinical mastitis problems are starting and when they are improving. It can also help pinpoint high risk lactation groups/stages. Both of these indicators are dependent upon monthly testing intervals. A one pound change in Management Level Milk equates to a potential 300 pound change in a herd’s rolling herd average. A one pound change in peak milk can lead to a 300 pound change in a herd’s RHA milk. These shifts in production are too big to ignore. Peak milk accuracy declines markedly with longer testing intervals.

**Reason 4:** Measuring fresh cow performance and health becomes less accurate with longer test day intervals. Transition Cow Indexes® are only calculated on cows from 5-40 days in milk. Longer test day intervals mean more cows are not included in a TCI® and the information becomes less reliable. Early metabolic problems are also more efficiently detected with a monthly test interval. As with TCI, cows must be 5-40 days in milk to accurately evaluate these issues (using fat to protein ratio). A longer test interval means more cows in this window will be missed and consequently the data is less reliable.

**Reason 5:** Monthly team meetings aren’t of much value if there isn’t new data to go over. Many producers schedule these meetings on a given date every month that is shortly after they will have received their test day production packages. Consultants working with a large number of herds expect new data every month and are most familiar with this type of data. (Continued on page 3)
Outstanding Service Awarded at Annual Meeting

AgSource Cooperative Services recognized several outstanding DHI employees for their valuable service to the cooperative at their annual meeting March 24 in Bloomington, Minn.

The recipient of the 2010 Outstanding Service Award for Field Service is Marvin Friedrich. Friedrich has been a Grant County DHI Field Technician for over 25 years. He services 32 supervised herds and 16 owner sampler herds totaling over 4,000 cows. Marvin has become the #1 technician in Grant County in milking glove sales.

The Outstanding Service Award for the Laboratory/Office Area is Janet Raeder. Raeder is a Lab Support Technician at the Eastern Wisconsin DHI-Laboratory. With 12 years experience, she plays a key role in taking care of the sample bottles in the lab. The primary objective of her position is to wash, pack, number all F-Tech and owner sampler herds, re-secure and cap all sample bottles. This is roughly 100,000 bottles per month and has earned her the nickname "Bottle Lady".

Robert Curtis is the 2010 recipient of the Neal Langjahr Memorial Award. The award recognizes outstanding managerial service to the cooperative. Curtis has over 30 years of DHI experience, beginning his DHI career in 1977. He became manager of the Columbia Marquette DHI association in 1995. In addition to his managerial duties, Bob continues to supervise 21 herds and 13 owner sampler herds. Columbia Marquette DHI services 93 herds and 11,208 cows.

Special recognition was also given to Don Andrews, for 50 years of service. Andrews began his DHI career as a Field Technician in Lafayette County in 1959. In 1965 he became Manager of Lafayette Co. DHI and in 1969 Lafayette Co. DHI merged with Agricultural Records Cooperative (ARC). Andrews held numerous leadership positions and in 2001 he was promoted to Vice President of DHI Direct Member Services. In 2004, he retired from that position and currently works part-time for the Center and DHI Services.

Rickert Awarded Distinguished Leadership Award

AgSource Cooperative Services recognized James Rickert, Eldorado, for his leadership in the cooperative at the Annual Meeting. The Distinguished Leadership Award is presented to an individual who, as a member of the cooperative, has demonstrated exceptional service and provided extraordinary leadership at all levels of the organization.

Rickert, along with his family, has been a member of DHI for over 60 years. He served 20 years on his local association board. In 1994, he was elected to the AgSource Board of Directors, and served four three year terms, which is the maximum allowed.

Rickert has been an active leader across the dairy industry as well. He joined the Wisconsin Holstein Association State Board in 2005, and has been a member of the Holstein Association for 30 years. He also spent nine years on the Fond du Lac County Forage Council Board and 15 years as a Select Sires delegate. In 1994, he was recognized as the Fond du Lac Outstanding Young Farmer and the First Runner-up for State Outstanding Young Farmer. Rickert was a charter member of the Eldorado Lions Club and has served as secretary for 24 years. He has been a 4-H Club leader for the Rosendale 4-H Club and a Wisconsin State Fair chaperone. He is active in his local church, serving in various leadership roles including vice president.

Rickert and his wife Kelly milk 850 registered and grade Holsteins in a family farm corporation consisting of 1,800 acres that includes their parents and a brother. They have been married 27 years and have two sons, Andrew and David.

New Directors and Officers Elected to AgSource Board of Directors

Edward Strauss, Sheboygan Falls, was re-elected as president of the Board of Directors at the AgSource Annual Meeting held in Bloomington, Minnesota on March 24. At the meeting Dave Koekepe, Hartland, was elected as vice president; and Nathan Kling, Taylor, was elected as secretary. Strauss and Koekepe also represent AgSource on the Cooperative Resources International (CRI) Board of Directors. In addition, Annette Trescher, Cashton, and Daniel Diederich, DePere, were elected to the board while Ralph Levzow, Rio, was re-elected to a second term on the board.

Trescher owns and operates Trescher Town-View Dairy with her husband and two children. She served on the Monroe County DHI board from 2003 to 2009, including four years as president. In addition to her involvement in DHIIA, Trescher is the Monroe County Farm Bureau President and a member of the Group IV Jackson-Monroe-Vernon County Leadership program.

Diederich is part owner and Chief Operating Officer of Diederich Farm LLC. He is a 2004 graduate of UW-Madison and has a degree in Dairy Science. He has served on the Manitowoc and Eastern Wisconsin DHI boards since 2008, and is currently the board vice president. Diederich is active in his local parish as well as a Boy Scout Troop Leader.

The Distinguished Leadership Award (right), presents James Rickert (left) with the Outstanding Service Award for the Laboratory/Office Area. Janet Raeder (left) receives the Neal Langjahr Memorial Award. The award recognizes outstanding managerial service to the cooperative. Curtis has over 30 years of DHI experience, beginning his DHI career in 1977. He became manager of the Columbia Marquette DHI association in 1995. In addition to his managerial duties, Bob continues to supervise 21 herds and 13 owner sampler herds. Columbia Marquette DHI services 93 herds and 11,208 cows.

Newly elected directors, Daniel Diederich and Annette Trescher.