

dhia


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Dairyman To Dairyman

GEORGE CUDOC

PA DHIA
Consulting
Dairyman



Question: Every now and again, I receive a call from a dairy producer who is upset that his DHIA butterfat test and his payment test are not the same. This morning such a call came in and I would like to show a piece of research that might help answer this question.

Butterfat test can vary greatly from day to day in individual cows. To illustrate this I include this chart from North Carolina State University.

We see wide variation in a five-day period as noted by cow #266 that tested a range of 1.7 to 5.95% butterfat. The average cow in this study actually varied fat test across the five-day period by 1.74% and one cow tested 3.8% differently from one milking to the other

Many factors can influence the

day-to-day variation in fat test. The day and time of sampling as seen above can certainly play a role. Environmental stresses such as heat and humidity can also alter fat test very quickly. Disease pressure has an impact on fat test and usually is coupled along with large changes in milk volume. Excitement associated with activities outside the normal day-to-day life of the cows can influence fat test. Foot trimming, rectal palpations, or simple changing groups or pastures might cause large fat variation. Nutritional changes can affect fat test and should be done as gradual as possible. Allow yourself to wonder a bit about the large change in a cow when she pastures at night and then is fed a TMR during the day.

Milking equipment, like any other, will wear as time goes by. When DHIA milk meters are added temporarily to the system, vacuum levels often become inadequate thus compromising both the ability to properly milk the cow as well as the functionality of the meter itself.

As you can see, there are many opportunities for milk fat test variation. These should point out the impracticality of comparing test results from DHIA and the

processing plant. Often times we are not comparing the same milk. DHIA usually measures one milking or one day and then is only part of a multiple milking pickup. Dean Amick (Director of Field Services) will suggest this when tank and DHIA butterfat

test are severely different. Pull one tank sample after proper agitation and then divide into three equal portions while keeping the milk stirred. Send one to your dairy processor, one to the DHIA lab, and the other to an

independent lab. This should answer some questions about testing procedures, herd management, or sampling technique used by the hauler. Remember as you proceed, the high test is not always the correct one.

Cow No.	Mon. p.m.	Tues. a.m.	Tues. p.m.	Wed. a.m.	Wed. p.m.	Thu. a.m.	Thu. p.m.	Fri. a.m.	Fri. p.m.	Cow avgs.	Range Low	Range High
94	2.60	2.50	3.35	2.90	3.90	3.15	3.00	2.60	2.20	2.91	2.20	3.90
155	2.20	2.75	2.95	1.35	3.80	2.30	1.95	1.60	3.50	2.49	1.35	3.80
180	3.80	3.90	3.75	3.60	3.40	2.40	3.45	3.10	4.00	3.49	2.40	4.00
224	2.35	4.70	3.10	4.50	4.05	3.20	4.30	3.73	2.35	4.70	2.35	4.70
230	3.65	2.60	4.50	4.10	3.40	3.75	3.60	3.10	4.40	3.68	2.60	4.50
236	2.45	3.50	2.70	3.30	2.90	3.30	3.30	2.80	3.20	3.05	2.45	3.50
238	4.00	3.30	3.50	3.25	3.15	3.65	3.40	3.60	3.60	3.49	3.15	4.00
251	3.20	3.40	4.10	3.25	3.25	2.90	3.60	2.70	3.05	3.27	2.70	4.10
258	3.80	2.20	3.00	2.60	4.30	3.60	4.65	3.20	3.70	3.45	2.20	4.65
265	3.80	3.40	3.25	3.05	3.30	2.45	3.40	2.35	3.35	3.15	2.35	3.80
266	5.50	1.70	2.70	2.85	4.10	5.95	4.90	2.00	2.65	3.59	1.70	5.95
267	3.80	3.00	3.65	3.25	3.50	2.85	3.60	2.70	3.20	3.28	2.70	3.80
289	3.90	3.80	4.20	3.40	4.25	3.95	4.05	2.70	3.90	3.79	2.70	4.20
291	2.50	3.20	3.75	3.30	3.30	2.90	4.50	3.10	3.55	3.34	2.50	4.50
305	3.95	3.50	3.65	3.80	3.45	3.60	2.80	3.95	3.95	3.63	2.80	3.95
316	3.60	3.40	3.70	3.20	3.60	3.20	3.30	3.05	3.30	3.37	3.05	3.70
Avg.	3.44	3.18	3.49	3.23	3.60	3.35	3.58	2.86	3.49	3.36		




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