DHMCP Assignment 1 Feedback and Comments

Cynthia Miltenburg

General Format

- Reports for clients should have the client's name, your name and date produced. Letterhead looks professional.

- The format of a letter works well. Signing the report makes it more personal to the client.

- Titles to sections can help direct a client through the report and avoid getting bogged down in information. Including subheadings such as Current performance, Goals, Summary or Action Items in addition to the area of review (Production, Reproduction, Udder Health, and Transition Cow Performance) can be helpful.

- Graphs should be large enough to read if included in the report. I know some people made them small to minimize overall length. They should also be labelled with what they are showing by a simple title or description and labels for the x and y axis included if they are not clear from DairyComp.

Language

- Many people use language in the reports such as "maybe", "might be", "could be", "perhaps", "I think it might possibly just be maybe"… my personal opinion is that you are writing it down, you should be confident in your assessment and this type of language weakens your ability to convince a producer of your interpretation. It might be appropriate in discussion, but on paper it is better to be clear and committed to your evaluation.

- If you are going to say "this is worth investigating further" or we should "explore this more", ideally you should describe in 1-2 statements what that investigation would look like or entail. What exactly are you proposing…?

- I didn't comment on grammar, but many reports could use a re-read for eloquence ☺

DHI Numbers vs. Pick-Up Numbers (L, Fat, Pr)

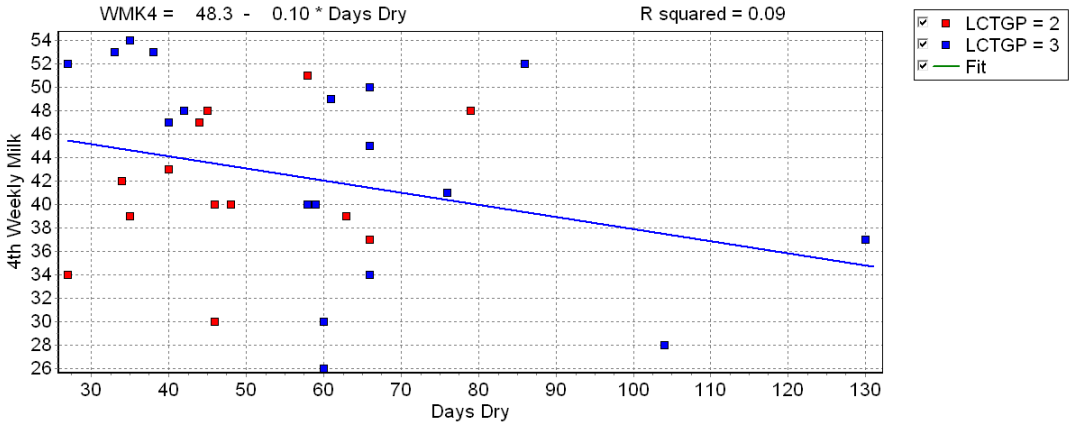
- Nearly everyone reported discrepancies between these numbers for the DHI test vs. same timing pick-up. There are many reasons for this such as the cows included in each measure and whether cows are withheld from the bulk tank, feeding milk to calves or people, the number of milkings represented in each number, and less so, the influence of meters and milk out, reading errors, etc.

- The important message is to **be aware of the milk and components the producer is being paid for when making recommendations or changes** that are based on these numbers. Also to be cognizant of what portion of the herd is included in each measure and to make sure you are using the most recent data available.

Interpretations

Line of Fit – Some scatter graphs are accompanied by a line of fit with an equation describing the slope. The line of fit (also called the trend line) best represents the data on a scatter plot and may pass through none, some or all of the points. The R^2 value gives an indication to how close the data are to the fitted line with 0 meaning it doesn't fit the data at all and 1.00 meaning it perfectly fits the data.

- How not to interpret the line:
    - The line is not an average over time or an average at a series of time points (example if the x axis is test day)
    - The line is not a goal but may be useful for goal setting
- How to use the line:
    - The line can be useful when you are trying to compare two areas in the dairy and looking for a connection between them – example do cows with a longer dry cow period have lower milk production? The line will show you the trend of the points.



The line here is showing that as days dry increases, 4th weekly milk decreases. The R^2 is 0.09 which is low showing the trend is weak. Reasons for this are probably that there are not a lot of data points and there are a few outliers with large influence in the slope equation. However, unless you have data from a lot of cows, you will likely have to work from low R^2 values and need to use your judgment as to if the association is valid.

Example Report

Herd Performance Monitoring Report

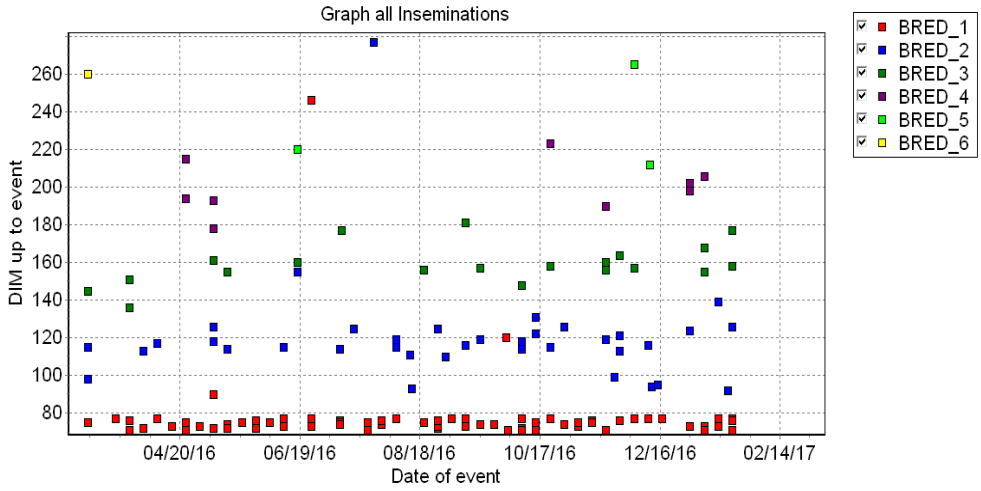
May 30th, 2017

Milk Production

- Current test day (May 2nd) DHI milk/cow is 39L at 174 DIM with 1.6kg of butterfat(BF)/cow/day. This compares to 38L and 1.6kgBF/c/d at about 160 DIM the past 2 tests. Excellent!
- DFO shipments on May 4th which would have included the pm milking on test day May 2nd was 1.45kg BF/c/d, 1.2kg Protein/c/d and 34.2L/c/d. This doesn't include milk fed to calves and milk for 5 families with approximately 20 people total which explains the difference between the DHI milk/c/d and the DFO milk/c/d.
- The 305ME average is 13560Kg which is about the same as production in January 2017 and up slightly from the previous 2 months (13400 in Feb. and Mar.). This is a calculated number in Dairy Comp that allows production comparison between test days and within the herd.
- The herd goal is 1.5kg BF/cow/day shipped to DFO.

Reproduction

- The herd's current pregnancy rate (PR) is 23% from Nov. 2016 to present test date. Recent PR is 27%, 14% and 31% for the past 9 weeks. The graph below depicts how consistently you carry out the presynch, resynch and ovsynch programs.
- Heat detection has been relatively consistent with herd health visits every 2 weeks. Since Nov. 1st, the HDR avg. is 57%. Recently, this has been 60%, 42% and 64% the past 9 weeks.
- Conception Rate has been very good since November, 48%.
- Heifer reproduction: Conception rate since November is 43% from 23 breedings with known outcomes. Heat Detection rate is 38% since November and the Pregnancy rate is 15% since November (VWP = 400dd). There are also 5 heifers (out of 14) between 13 and 20 months old that are not bred yet.



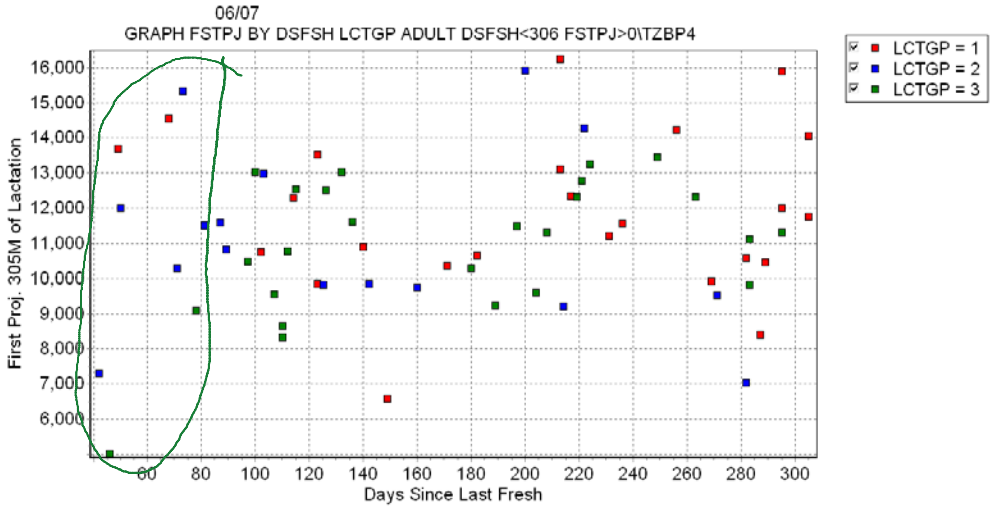
Udder Health

- Current SCC is 284,000 on the May 2nd test date. The previous 3 months were 292,000, 332,000 and 169,000.
- The New Infection Risk (NIR) was 13% for the May 2nd test date (chart below - green row). This compares to 12% in Apr. and 8% in March. There have been only 3 tests out of the last 10 where the NIR is >8%.
- The High Fresh % is 14 (1/7) for the May test. There were 4/20 fresh cows that were >200,000 on their first test the previous 3 months (chart below - orange row).
- 74% of the herd was <200,000 and the remainder was >200,000. This is very similar to the previous 5 tests, all were around 75% each month (cows <200,000).

		25-May	05-Jul	04-Aug	04-Sep	04-Oct	23-Nov	21-Dec	24-Jan	25-Feb	29-Mar	02-May
LS												
Chronic %		15	17	13	18	24	18	20	24	16	15	17
#		10	12	9	12	17	11	14	16	10	10	12
New Inf %		9	4	7	6	6	10	7	6	6	9	10
#		6	3	5	4	4	6	5	4	4	6	7
Cured %		7	1	3	5	4	10	6	4	6	8	4
#		5	1	2	3	3	6	4	3	4	5	3
Clean %		69	77	76	71	67	62	68	66	71	68	68
#		47	53	51	46	48	38	48	45	45	45	47
HiFresh %		17	25	33	29		15	25		33		14
#		2	3	2	4		2	1		4		1
LoFresh %		83	75	67	71	100	85	75	100	67	100	86
#		10	9	4	10	4	11	3	5	8	8	6
Cure Risk		32	6	19	22	14	36	23	14	27	35	19
New Risk		12	5	8	8	8	14	9	8	8	12	13

Transition Cow Performance

- Currently, there is a significant range of 305First Projections in the cows <60dim - 5000kg to 15,500kg (see graph top of next page – green circle).
- Current 4th weekly ME projections are relatively consistent since Nov. 1st. This has been about 11,000kg median projections during this period of time.
- The recent ketoscreen test shows 2/4 cows positive for the recent test date.
- There were 3/9 fresh cows ketotest positive on the March test and 6/10 positive in Feb.
- There are very few fresh cow disease events recorded which may not indicate a true reference of transition cow health.



Opportunities

1. There appears to be inconsistent fresh cow productivity and health recently (the past 3 months). Plan to meet with your nutritionist and review current dry cow feeding/housing program to identify bottlenecks during the dry period and the first 30 DIM.
2. Make sure the 5 heifers who are >13months old and not bred yet are examined at the next herd visit and bred as soon as possible.
3. Forage quality is king when it comes to milk production, harvest the haylage and corn silage when it will provide optimal feed value (weather permitting of course). Make sure the corn silage is processed too to improve digestibility and milk/acre harvested.

Thanks for inviting me to evaluate your herd's performance.

Signature

Discussion/Reflection

Production measures

Current DHI test day info – L/c/d and bf/c/d: this is used b/c the owner likes to know these numbers. With the inclusion of avg. DIM on test day, it provides an answer to "how is milk production going recently?".

Pro – client recognizes this number

Con – no indication of the variation (max to min.) and is biased if there are lots of heifers one month and more adult cows another month for comparing to previous test dates.

DFO shipments: I use this because this is what the client's milk revenue is based on and how quota is filled.

Pro – when projecting return on investment for management changes, best to use actual milk shipped.

No lag, momentum.

Con - relevant for milk/cow only if you know how many cows were in the tank and how much was used for calves and house consumption.

305ME: used because it is a way to compare production level within a herd between different test dates.

Pro - adjusts for # 2yr olds and avg. DIM, no lag

Con – the algorithm favours 2 yr olds, making their ME slightly higher (bias).

Reproduction measures:

Preg Rate – best answers the question "how is repro doing recently?". Pro – minimal lag, no bias. Accounts for conception and insemination risk as well. Con – in small herds, can have lots of variation between 3 wk intervals.

Udder Health measures:

New Infection Risk: same reason for udder health as preg rate was for repro above. Best answers the question, "how is udder health doing recently?".

Pro – no bias, momentum or lag. Relates to mastitis bacteria pressure at teat ends. Con – in herds with lots of Staph aureus, can give a false picture of new infection risk.

Hi Fresh: used to capture how fresh cow udder health is going recently.

Pro – no lag or momentum. Con – chronic cows (DCT failure) will bias this number.

Transition Cow measures:

Ketoscreen: used to assess energy balance and immune function during the transition period.

Pro – no bias or momentum, easy to measure. Con – lag prevents accurate diagnosis at cow level.

First ME projections: used to measure production variation and transition overall performance.

Pro – fair comparison across lactations and over time. Con - ???

Current bottleneck on this farm is transition cow facilities. With recent quota and herd size increases combined with excellent reproduction the past 4 years, there is an overall lack of space for the transition cows for many weeks of the year.