**TEAM**

Chair Asha Miles | USDA-ARS-AGIL

Membership Jeffrey Bewley | HAUSA

Sophie Eaglen | NAAB

Robert Fourdraine | DRMS

Kristen Gaddis | CDCB

Steven Sievert | NDHIA

Advisory Joao Durr | CDCB

*In absentia: Joao Dur, Steven Sievert (called Asha to share thoughts on agenda, his comments included below)*

**PROPOSED AGENDA**

1. **Definition of complete lactation record.** Our research has shown we can produce a decent evaluation with only 10 records spaced evenly throughout a lactation (e.g., test days). This proposed trait uses complete lactations only meaning a cow must have reached at least 305 DIM, and all data available for those 305d. However after data cleaning not all cows will have 305 \* 3 records (in the case of a 3X herd), and I don't want to say we only need 10 records and only get 10 records from 4 consecutive days in a lactation because there is a clear DIM effect on MSPD. We need to establish the limits here.

Best way to resolve this is to get data that is attached to a test day. Herds with their own milk weights may only test 4 times a year so requiring 10 observations would ignore a lot of data. Having a rule dependent on test day could eliminate 90% of lactations – research should be redone considering fewer observations (suggest 8 or 6 – Lactanet does 6 from first parity only). DairyComp, DHI+ do not retain this data, ATA probably doesn’t either and would require changes to their software or manual recording surrounding a test day. TF should not make this decision if it impacts infrastructure and how DRPC operate. May require additional meetings with DRPCs.

1. **Final decision on intermediate optimum.**We have had a lot of discussion but no decisions. None of our phenotypic analysis suggests a relationship between MSPD and SCS or clinical mastitis. There is an unfavorable genetic correlation, but MSPD is correlated with milk yield (0.5 - 0.7) so this could be picking up existing antagonistic relationships with yield traits.

No stud will market an intermediate – they want bulls at the top of the list. Nonetheless, should investigate potential non-linear relationship between MSPD and SCS where extremes are bad. Most people want fastest possible but are nervous about udder health repercussions. See if European papers with MIR data have looked at this. Suggested a 3 trait model with MY, SCS, and MSPD and look at genetic corr; bottom line corr could be low if not a linear trait but still important/impactful. Need to be very sure about this before releasing a trait and research needs to be revisited. Make sure herds are reporting CM at all otherwise we are inflating zeros – Robert to send file with CM events per herd. Check if Canada reports mastitis relationships to MSPD.

1. **Weights upper limit.**Currently we restrict records to between 0 and 60 lbs as part of data cleaning. This may be too conservative and we are throwing out our best cows. A breakdown of the amount of data captured by each milk yield tier in our dataset is attached (2X HO herds). Should we do away with upper limits all together?

Push to at least 100lbs then redo mastitis analysis with high producing cows now included; some cows do produce 220lbs per day. Since meeting: Jana has increased limit to 150 lbs and is working on new analysis.

1. **Unit of expression lbs/min.**These are intuitive but small numbers; PTAs have SD of 0.23 and range from -1.1 to +1.4.

TF is fine with units, Sophie wants to run by studs and will do so ASAP.

1. **Abnormal flags - we did not throw out observations tied to abnormal flags because there were not many reported in initial dataset. Is this something we want to revisit?**

Since meeting: Jana has found only 4 abnormal flags recorded across entire dataset including new data. Sentiment is to remove abnormal flags but also consider more stringent restrictions on DIM – first 28 d yields are highly variable session to session, can reflect both herd and milking session effects. Flags should still be reported in Format 8 and stored.

1. **Robotics data – next priority**

TF feels this is an entirely different trait. Less than 6% of US herds use robots at this point; recommend talking to Lely/Delaval and discuss where data is going in US

1. **Start thinking about economics for inclusion in NM$**

Task force has placed this in low priority; maybe should not be included in NM$ at all. MPSD can also be used for pen and human management; publish the trait we have and let people decide how to use it.

1. ***Other comments on GEM report***

Remove Netherlands from lit review, they have switched to 100% robot system