Field Service Update

Field Service Advisory Committee

March 3, 2020

Steven Sievert
Manager, Quality Certification Services Inc.
Technical Director, National DHIA
Chair, ICAR Subcommittee for Measuring, Recording and Sampling Devices

NATIONAL DHIA Quality Certification Services Inc.

General Housekeeping

- Audit submission options
  - QCS FTP site – will no longer be functional on June 30, 2020
    - Vulnerability issues
    - Browser or network restrictions at some field service affiliates
    - Lost credentials or staffing changes that require additional support time
  - Dropbox will be used for all field service audit submissions moving forward
    - QCS will create a shared folder for each affiliate and an email invite to the folder will be sent
    - Field service affiliate can share folder with other employees
    - Apple and Android apps for Dropbox allow for syncing folders, etc.
    - Upload all files – Excel, PowerPoint, PDF, Access, Word, etc.
    - Two way street – QCS can upload reports, field training presentations, other supporting documentation
    - Email to other parties of shared folder when additions/uploads are made by users

General Housekeeping

- On-site audits continue to be more efficient
  - Presence of auditor elevates priority to complete audit
  - Higher percentage of on-time submissions
  - Less follow-up materials and quicker turn around
  - Auditor can offer other support – technician or field manager training, local board meetings, milk meter dealer support, etc.

- Common ‘occurrences’ with missing documentation
  - Computer theft, damage, or other accessibility issues
  - Lost forms/documents that were never filed or scanned
  - Consider use of app to convert picture to PDF file and email/save – useful when on farm for parlor reports, meter make/model, etc.

National DHIA - Uniform Operating Procedures

- Latest version is March 5, 2020
  - UOP should be provided to all herds – requirement with new or restarted herds as outlined in the auditing guidelines
  - PDF of UOP is available on National DHIA and QCS websites

NATIONAL DAIRY HERD IMPROVEMENT PROGRAM
UNIFORM OPERATING PROCEDURES

Effective March 5, 2020

- Code of Ethics – item E - requires notification of auditor if collection of supervised data is being done by a technician with either financial interest or family interest in the dairy.

Initial & Follow-Up Training of Field Technicians

- Most field service affiliates meet the minimum
- Training documentation is dated for many organizations
  - No updates to training programs for over a decade
  - Failure to complete follow-up training as outlined in guidelines
  - Need to provide the tools for new field technicians to succeed in their role
  - QCS recognizes variances between affiliates – just document what training you provided
- What support is needed?
  - On-line training modules?
  - Customizable/fillable templates?
  - Topic for QCS Advisory Committee meeting

Continuing Education for Managers

- Certain field service affiliate managers do not attend any organized training meetings

- Added *Guidelines for Continuing Education of Field Service Managers* - effective January 1, 2016
  - 3 of 25 affiliates failed to meet this requirement in 2018
  - 4 of 25 affiliates failed to meet this requirement in 2019
  - Certification status is conditional or provisional based on other compliance issues associated with the audit

- These issues create increased challenges and increase costs of support
  - Not aware of industry changes (UOP, test plans, calibration procedures)
  - Higher non-compliance issues during field service and meter center audits with those affiliates who are not engaged in the system

Portable Meter Calibration Performance in 2019

Meters are required to be calibrated at least once every 365 days

	Best Service Provider	Poorest Service Provider	2018 Weighted Mean	2019* Weighted Mean
Not Calibrated	0%	100%	2.3%	2.4%
% <365 days	100%*	0%	49.6%	40.3%
% between 365-425 days	0%	0%	33.9%	39.1%
>425 days	0%	100%	14.2%	20.6%

**There were 2 field service providers with 100% of meters <365d in 2019*

**Multiple affiliates were affected by delayed delivery of OEM parts in 2019*

NATIONAL DHIA

QSI Quality Certification Services Inc.

Electronic Meter Reporting

- Don't forget to update make, model and number of meters as parlors expand or are remodeled

- Common incorrect statements regarding electronic meters
  - Set it and forget it attitude regarding meter calibration
  - A 10-day average takes care of all individual cow errors
  - Parlor report is enough – routine maintenance is not needed or follow-up on deviating meters not required

- All test plans are included – even 40's and 70's – just because a herd is on a commercial or unsupervised test plan does not waive electronic meter reporting and calibration requirements

Calibration of Electronic Meters

- Guidelines require that herds using in-place electronic meters need to have them calibrated at least once every 12 months

- Guidelines offer options for compliance
  - Water Test Calibration
  - Parlor Report/EMMR/Manufacturer's Software Report demonstrating that meters are accurately weighing milk
  - Other procedure approved by the auditor

- Confusion over what is acceptable for AMS (robotic) herds
- New electronic calibration procedures from manufacturers that are not covered in the current guidelines
- This is a growing area for support, compliance and service

Quality Certification Codes

Reference 118

Code	Description
1	All data (event, yield, components) are used MEETS ALL QC
2	Event data and yield are used but components are not used METERS ARE CERTIFIED, LAB IS NOT
3	Event data is used but yield and components are not used METERS DO NOT MEET QC
4	The data (event, yield, components) do not meet QC and are not used DOES NOT MEET QC

NATIONAL DHIA Quality Certification Services Inc.

Quality Certification Codes

Reference 118

QC Codes are currently applied to the herd (all cows under herd code)

- Allow for usable data to be used for management and genetic purposes
- Field Service Provider indicates the effective date(s) of the proper QC Code to DRPC – this includes changing back to QC Code = 1
- During audit, QCS may indicate the proper code should be applied to a herd for all or specific test days but communication responsibility falls with field services.
- QCS is working with CDCB to validate proper application and use
- Application to data from sensor devices is possible in future

What is Available for Parlor Reports?

- Examples and instructions are included on USB drive.

- Manufacturer Software with Parlor Reports that meet QC Requirements
  - Boumatic – Provantage and SmartControl/BouMetrix
  - Dairymaster – Milk Manager
  - DeLaval – Delpro (technically a calibration routine and report)
  - GEA – DairyPlan (both old and new platforms)

- Manufacturer Software without Parlor Reports
  - Afimilk – Afifarm
  - S.A. Christensen – UniMilco
  - Fullwood – Crystal

- Uncertified Systems – Cannot Use even if Parlor Report is Available
  - SCR – Dataflow II
  - Beco – Parlor Scan
  - Waikato – NaviGate
  - Panazoo – DFM (Dairy Farm Manager)

What is Available for Parlor Reports?

- Examples and instructions are included on USB drive.

- Third Party Farm Management Software (FMS) with Parlor Reports that meet QC Requirements
  - VAS – DC305
  - DRMS - PCDart
  - Bovisync
  - Uniform-Agri – Milking System Monitor

- Third Party Farm Management Software (FMS) without Parlor Reports
  - DHI- Plus
  - Agritec - Vaquitec
  - Vampp
  - Milking Cloud

Electronic Meter Documentation

New Parlor Performance Report for Bovisync Users

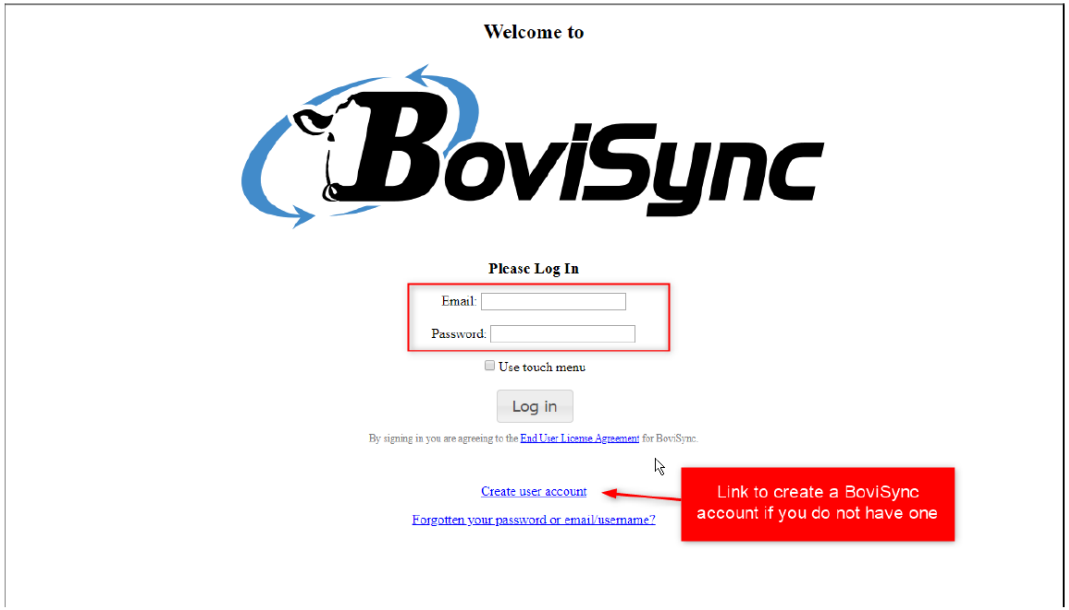
DHIA Compliance Report and Milk Monitoring Report

This KB article will walk through the process of logging into a BoviSync herd, Running the DHIA Compliance and Milk Monitoring Report, exporting the reports, and links for shift specific deviation reports. This report will allow you to calibrate the parlor for compliance.

Logging into a Bovisync herd

First go to Bovisync (click this link).

Once you arrive, enter your user name and password. (If you do not have a BoviSync account, follow the link below the username and password).



Once you are logged in, open the herd that you would like to see the deviations for. Upon your first login to BoviSync you will see the screen below. Select **Open Herd(s)**.

NATIONAL DHIA
Quality Certification Services Inc.

Electronic Meter Documentation

New Parlor Performance Report from Uniform Agri

DEMO GI ophogen aan — dinsdag 5 juni 2018 20:09

[2.11] — 1 / 1

Milking System Monitor

Milking: 31-5-2018 1/1

Milking

Group	#Cows	Milk Total	Total	Time Start	End
1	25	320	2:56	6:06	9:02
2	142	2344	3:37	5:24	9:01
3	139	1843	2:34	6:24	8:58
4	151	1864	3:16	5:54	9:10
5	5	62	1:01	7:36	8:37
8	1	9	0:04	8:30	8:34
Total	463	6442	3:46	5:24	9:10

Look Back

Date	Milking	Time Start	Time Total	Average per Cow Milk	Milk/min	Dur
31-5-2018	1/1	5:24	3:46	13,9	2,9	4,8
30-5-2018	3/3	21:00	2:47	11,4	2,6	4,4
30-5-2018	2/3	13:18	3:23	11,8	2,7	4,4
30-5-2018	1/3	5:24	3:12	13,1	2,8	4,7
29-5-2018	3/3	20:54	3:08	10,4	2,4	4,4
29-5-2018	2/3	13:24	3:22	11,7	2,7	4,4
29-5-2018	1/3	5:24	3:54	14,1	2,9	4,8
28-5-2018	3/3	20:48	3:02	11,4	2,6	4,3
28-5-2018	2/3	13:18	3:28	11,8	2,6	4,5

Cows

Group	#Cows	Milk /Cow	Milk /Hour	Milk /Stall/h	Cows /Hour	Cows /Stall/h	Avg Dur	SPP	DIM
1	25	12,8	160	65,8	9	0,4	4,8	42	30
2	142	16,5	203	54,5	39	1,0	4,9	60	141
3	139	13,3	153	46,3	54	1,3	5,2	54	111
4	151	12,3	172	51,2	46	1,2	4,3	59	264
5	5	12,4	159	41,3	5	1,2	4,7	58	320
8	1	8,9	124	22,2	14	13,9	4,3	0	0
Mean		13,9	175	42,6	122	3,1	4,8	57	168
Total	463								

Stalls

Stall	#Cows	Total	#/Min	/Cow	Mean P/E	Mean Dur
1	11	143	2,8	13,0	99	4,7
2	11	138	2,6	12,5	101	4,8
3	12	171	3,0	14,2	98	4,7
4	12	151	2,8	12,6	95	4,5
5	11	141	2,4	12,8	98	5,4
6	12	165	2,8	13,7	97	4,8
7	12	170	2,8	14,2	101	5,0
8	12	173	2,9	14,4	102	5,1
9	10	129	2,4	12,9	97	5,3
10	12	176	3,3	14,6	101	4,4
11	12	168	3,4	14,0	98	4,2
12	12	166	3,1	13,8	100	4,5
13	11	162	2,7	14,7	100	5,4
14	10	148	3,0	14,8	102	4,9
15	10	147	3,1	14,7	99	4,8
16	10	131	2,8	13,1	104	4,6
17	10	152	3,4	15,2	106	4,5
18	10	139	2,6	13,9	100	5,4
19	10	142	3,0	14,2	100	4,8
20	10	129	2,8	12,9	97	4,6
21	12	158	2,8	13,2	103	4,8
22	13	175	2,8	13,5	99	4,9
23	13	194	3,3	14,9	101	4,5
24	13	194	3,3	14,9	102	4,6
25	13	184	3,0	14,1	97	4,7
26	13	174	3,2	13,4	97	4,2
27	13	172	2,3	13,3	96	5,7
28	13	198	3,3	15,2	107	4,7
29	13	183	2,9	14,0	103	4,9
30	13	194	3,3	14,9	104	4,5
31	12	175	3,1	14,6	103	4,8
32	12	170	3,4	14,1	105	4,1
33	12	159	2,9	13,2	99	4,6
34	11	152	3,2	13,8	104	4,3
35	12	162	2,7	13,5	98	5,0
36	12	158	2,5	13,2	98	5,3
37	12	173	2,6	14,4	104	5,4
38	11	162	3,7	14,7	102	4,0
39	10	137	2,5	13,7	105	5,5
40	10	129	2,7	12,9	100	4,7
Mean	463	6442	2,9	13,9	101	4,8

[P/E = Actual production divided by expected production]

NATIONAL DHIA

Quality Certification Services Inc.

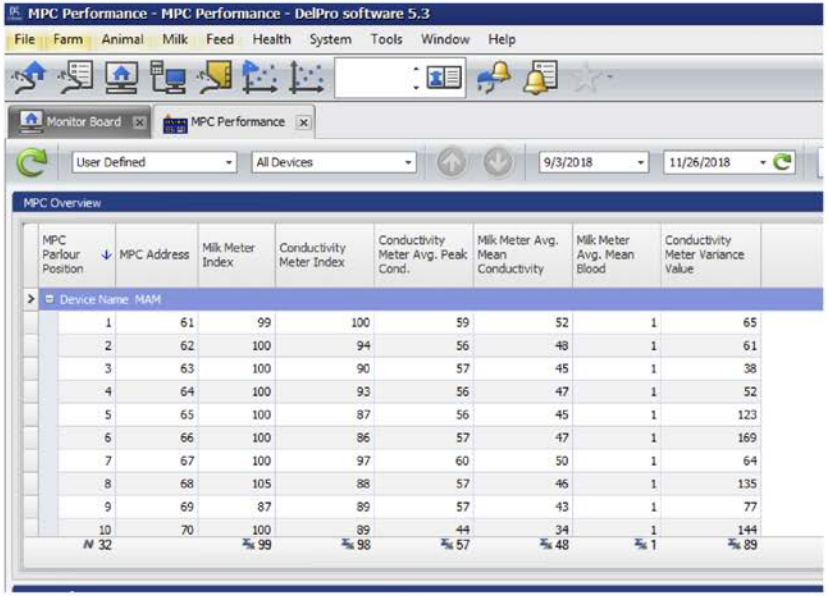
Instructions on Calibrating DeLaval Meters in Delpro

DeLaval

DeLaval MM25, MM27, MM27BC, MM27BC2

Function- Accuracy Check

- System- Service- MPC Performance

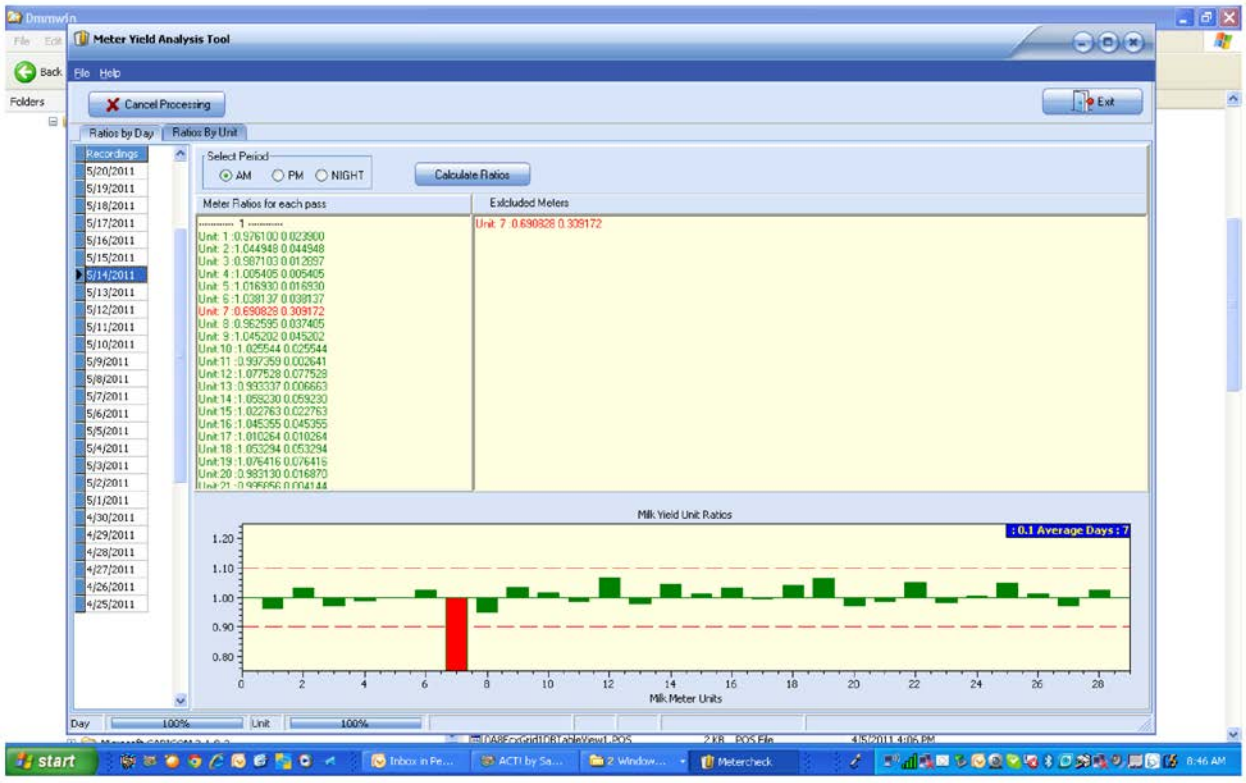


NATIONAL DHIA

Quality Certification Services Inc.

Electronic Meter Documentation

New Parlor Performance Report from Dairymaster



NATIONAL DHIA

Quality Certification Services Inc.

Annual AMS Calibration Report

Minnesota Dairy Herd Improvement Association
307 Brighton Avenue South • Buffalo, MN 55313
(763) 682-1091 • Fax (763) 682-1117 • www.mndhia.org

IN-PLACE ELECTRONIC CALIBRATION REPORT—ROBOTIC SYSTEM

According to the National Dairy Herd Improvement Program, Uniform Operating Procedures, producer-owned electronic meters used for DHIA testing must be checked for accuracy by a qualified technician with the same standards used for DHIA meters if the producer wants information to go to USDA. DHIA information is used by USDA for Sire proofs and other genetic evaluations and is required if the dairy is on a young sire program.

- Calibration reports are required on an annual basis with a maximum interval of 14 months.
- Meters must be within 5% of the Expected reading.

Herd Owner_____ Herd Code_____Date_____

Farm Name_____Field Rep Name_____

Address_____Field Rep Number (We will add)_____

City_____ State_____ Zip_____

Robotic Make (Ex Lely)_____ Model (Ex A3)_____

Install Date (if new install) _____ Number of Units_____

Robot Serial #_____
This Robotic Meter has been calibrated as per dealer instructions and is within certified tolerance: _____

Robot Serial #_____
This Robotic Meter has been calibrated as per dealer instructions and is within certified tolerance: _____

Robot Serial #_____
This Robotic Meter has been calibrated as per dealer instructions and is within certified tolerance: _____

Robot Serial #_____
This Robotic Meter has been calibrated as per dealer instructions and is within certified tolerance: _____

Robot Serial #_____
This Robotic Meter has been calibrated as per dealer instructions and is within certified tolerance: _____

Robot Serial #_____
This Robotic Meter has been calibrated as per dealer instructions and is within certified tolerance: _____

Signature of person performing test _____

Position _____

Dealership Name_____ City_____

Dealership State _____ Phone _____

Notes or Comments _____

_____

PLEASE MAIL TO: MINNESOTA DHIA, 307 BRIGHTON AVE S, BUFFALO MN 55313
or FAX TO MINNESOTA DHIA: (763) 682-1117 attention Gabe.

ARENTSEN FARM SALES & SERVICE INC
6875 Albers Road, Albers, IL 62215
618-248-5005 618-248-5002 fax

September 10, 2014

To Whom It May Concern:

The Lely A4 Robots at Arentsen Dairy, Serial # 5000613 and Serial # 5000614 were calibrated on September 10, 2014 by our Lely Technician, Patrick Bach.

Sincerely,

Gary Arentsen
President
Arentsen Farm Sales & Service Inc

Alternative to Calibration Report for AMS Herds

Robotic Meter Test Day Bulk Tank Differences

brezzy hill [redacted] 14-May 2014

Collection Date	Number of Robots	Collection Time	Actual tank	Tank Volumn	Milk Weight into Tank robot #1	Milk Weight into Tank robot #2	Milk Weight into Tank robot #3	Milk Weight into Tank robot #4	Sum of Daily Milk Weights Measured by the Milk Meter	Deviation %
05/04/14	2			3305	1428	1903			3331	100.79
05/05/14	2			3549	1701	2052			3753	105.75
05/06/14	2			3549	1872	2084			3956	111.47
05/07/14	2			3946	1889	2225			4114	104.26
05/08/14	2			3946	2006	2072			4078	103.35
05/09/14	2			3876	1919	1961			3880	100.10

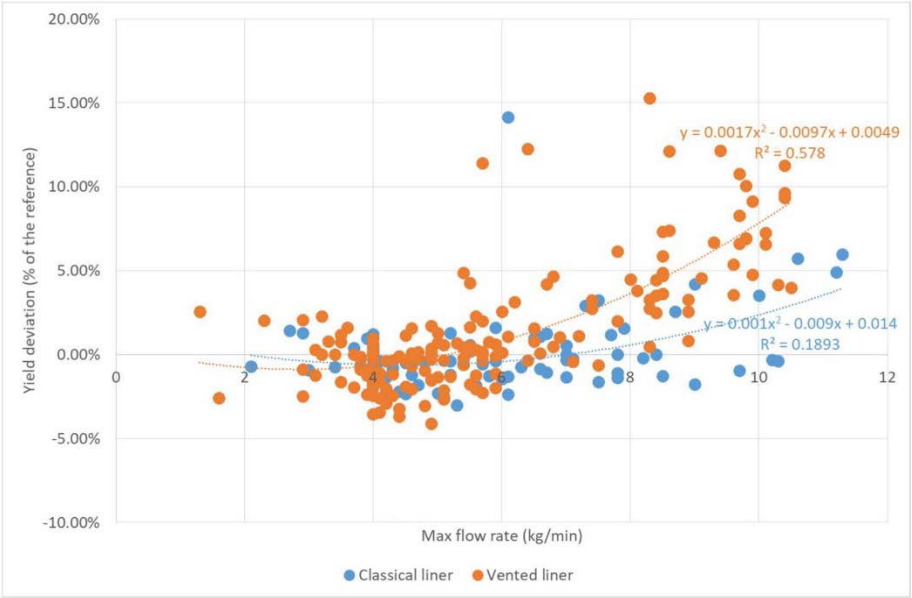
Measured Yield/Milk Shipped Comparison

- Minimum of 3 consecutive days, 5 days give better results
- Deviation must be ±3% average over evaluation period
- Spreadsheet template available from QCS
- Cannot use EMMR or parlor performance report like PCDart or DC305

NATIONAL DHIA Quality Certification Services Inc.

Preliminary Air Admission Test Results

- Increasing air admission causes over estimation of milk yield in meters tested and certified within ISO levels
- The higher the milk flow rate, the greater the overestimation of milk yield
- Different devices are affected to different degrees
- Concern for management data more than genetic evaluations – decisions on cow management are made in the first 120-150 days of lactation when milk flow is highest



NATIONAL DHIA
Quality Certification Services Inc.

Discussion Points on DHI and Vented Inflations

- Adjustment of milk weights at the whole herd level is NOT an option
  - Accuracy is only affected at higher flow levels
  - Low producing cows or slow milking cows are affected at a lesser rate
- Certain systems – DeLaval MM27BC, Afilite MPC, Interpuls MMV – have procedures to compensate for change in air admission
  - Use of these on-farm meters is better choice than using DHI portable meters for milk weight recording
- In addition to overestimating of milk yields, milk samples in some systems are not representative
  - Oversampling of milk at peak flow rates (usually lower in fat & SCC)
  - Foaming of milk due to increased air admission
  - Flooding of subsampler resulting in milk from last portion of milk letdown not being sampled
- This challenge is across borders and ICAR research continues - National DHIA is engaged in understanding of issue and working together with Canada & Europe to solve these challenges and deliver direction and/or policy.