Provider, Supervision & QC Codes



Field Service Advisory Committee Meeting March 5, 2019

Steven Sievert Technical Director, National DHIA

Important Variables to Describe

Current Coding

- Herd Code
- Field Service, Meter Center and Laboratory Codes
- Supervision Code
- QC Code
- Work Completed Weighed, Sampled, MRD

Future Needs

- Coding by Strings or Pens
- Equipment Type or Code (Meter, Sensor Name)
- Milking System Description
- Herd Management Descriptors



Herd Code Assignment Herd Code Blocks Assigned by National DHIA Office

- Blocks assigned to field service
 affiliates
- Third parties (VAS) have been assigned blocks of herd codes
- Heifer growers may be using specific herd codes for record keeping
- Non-processed herds at each affiliate that may be using a specific herd code
- Auto incrementing of herd codes is not an option



Herd Code Assignment A new herd assigned when...

- New ownership of herd but at same location
- The herd moves to a new location (state, county, etc.)

Do not assign a new herd code when...

- Herd transfers from one affiliate to another and/or another DRPC
- It may be quicker than obtaining intent to transfer and release for the herd but is not in compliance with UOP



Provider Codes

References

Field Service 021 Meter Centers 921 Labs 821

	Code is associated with the state where your office is located
Meter Centers	Meter center codes range from 900-999 Independent goat meters/scales: 998 EMM calibrated by third party: 999
Labs	Lab codes range from 800-899

•Codes assigned by National DHIA

•Listed on QCS website for certified providers

•Allows for data exclusion from provider not certified for a specific period



DHI Supervision Codes

Reference 108

<u>Code</u>	Description
0	Not used
1	Supervisor conducted test
2	Owner conducted test
3	Both supervisor and owner conducted test
4	Automated Milking System
5	Supervisor conducted test using electronic recording
6	Owner conducted test using electronic recording
7	Both supervisor and owner conducted test using electronic recording
8	Verification test not using electronic recording
9	Verification test using electronic recording



DHI Supervision Codes Herds with Manual Yield Recording

SUPERVISED TEST: All test day production data and cow identification has been recorded by the DHI technician who is expected to collect data as accurately as possible and to use approved procedures when taking milk samples. The DHI technician may employ assistants to perform these tasks when the facilities or milking processes do not permit a single DHI technician to observe identification, milk weights, and sample collection as they occur. (*Supervision Code 1*)

UNSUPERVISED TEST: Test day production data and/or cow identification has been recorded by someone other than the DHI technician. (*Supervision Code 2*)

PARTIALLY SUPERVISED TEST: The DHI technician collected production data and/or cow identification information for at least one milking on test day and someone else collected production information and cow identification for other milking(s) on test day. The DHI technician certifies that the test day information is believed to be correct and accurate. (*Supervision Code 3*)



DHI Supervision Codes Robotic Herds

AUTOMATIC MILKING SYSTEM TEST: Test day production data and/or cow identification has been recorded by an automatic/robotic milking system. Milk has been sampled using an automatic sampling device approved to provide representative samples when used with the automatic milking system. (*Supervision Code 4*)



DHI Supervision Codes Herds with Electronic Yield Recording

SUPERVISED ELECTRONIC TEST: The DHI technician performed a supervised test using the electronic recording of production data and cow identification together with appropriate verification that equipment for cow identification, weighing milk, and obtaining milk samples is in proper operating condition and is accurate. (*Supervision Code 5*)

UNSUPERVISED ELECTRONIC TEST: Test day production and cow identification has been collected using electronic recording and is submitted for processing without verification by a DHI technician. (*Supervision Code 6*)

PARTIALLY SUPERVISED ELECTRONIC TEST: The DHI technician performed a Supervised Electronic Test, <u>but cow identification was manually entered by farm</u> <u>employees.</u> (*Supervision Code 7*)



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



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

Future Herd Descriptors Needed

Coding by Strings or Pens

- Different milking frequencies, supervision, etc. for different pens, parlors, sites
- Equipment Type or Code (Meter, Sensor Name)
- Need to know source of data as we may have the same data (i.e. SCC) coming from different equipment
- **Milking System Description**
- Rotary, Parallel, Stall Barn, etc.
- In-Line Sensors

Herd Management Description

- Seasonal calving, grazing, confinement, etc.
- Others?



Primary Herd Characteristics

Characterize Data by Strings or Pens

Possible Option of Secondary Characteristics such as Robot Model or Sensor Name

Housing System	Milking System	Feeding System	
 Tie Stall Pasture Free Stall Dry Lot Compost Barn Hybrid 	 Tie Stall Flat Barn Parallel/Herringbone Rotary Robotic (AMS) 	 TMR PMR + Topdress Forage + Topdress Grazing Grazing + Topdress 	
Transition Program	Milk Yield Source	Milk Marketing	
 None Prefresh Postfresh Prefresh + Postfresh 	 DHI Meters On Farm Meters Robotic (AMS) In Line Sensor Bucket 	 Conventional Organic Home Manufacturing & Direct Sales 	
Repro/Breeding Program	Pregnancy Confirmation	Heat Abatement System	
 Visual Observation Sensor Based Timed/Synch Program Natural Service 	 Palpation Ultrasound Milk ELISA Blood ELISA In Line Sensor None/Non-Return 	 None Fans Misters Fans + Misters Cooling Ponds 	



Coding System for Recording Devices

ICAR Sensor Devices Task Force

- Working on a uniform coding system for recording and sampling devices
 - Would include current meters both portable and fixed/in-place
 - Sensor devices/systems would have codes that are unique to system, software version, and measurements collected
 - Includes devices for measuring milk yield & estimating milk composition but also devices that measure activity, BCS, feed efficiency metrics, and other live animal measurements
 - One system that databases and DRPCs could reference



Take Home Points

- Need to accurately describe/code test day and data sources
- Has to be a cooperative effort with field service, DRPC and National DHIA
- National DHIA is working with CDCB to ensure proper data handling and usage based on descriptive coding
- We will need to expand the capture of herd descriptive information to meet future needs
 - Multi-site dairies
 - Sensor devices
 - Provide qualified data for management and genetic research and reporting

