

Data quality points – an immediate and motivating supervision tool

ICAR, Berlin, 22.5.2014

Association of ProAgria Centres
Development project of Milk Recording
Project manager, Heli Wahlroos
heli.wahlroos@proagria.fi



Development project of milk recording

The aim is to give more value to the farmers!

- better data capture
- better data quality
- better utilisation of data on farm



Finland 2013: 70% of herds & 84% of cows (goal 90%)

- most typical is B48 recording (~ 90%)
- 98% of the recordings made by farmer
- during the project recording technicians have been trained (→ more A recording)

Supervision on data quality in Finland

We have a lot of data on data quality!

Most common causes of unofficial records:

- deviations in recording interval
- fat deviation from dairy fat
- untested milk meters
- deviation in sampling interval

Current system is just looking at the past,
is not helping the farmer to improve data
and requires lot of working hours.



Data quality points (DQP)

The new system encourages improvement.

- data quality points are reported after each recording valuable for farmer, advisor and breeding
- recording year unofficial if yearly average too low (<0)

Basic points for each recording = 10

+ points

technician made recording (A), +5

0 / - points

recording and sampling interval

number of recordings and samplings (12 months)

deviation from dairy milk and fat (4 month)

testing interval of milk meters

amount of farm usage (litres/cow/day)

Data quality points (DQP)

An example. The effect of sampling and recording interval on data quality points.

	Milk recording / sampling interval			
DQP	2 weeks	4 weeks	6 weeks	8 weeks
0	< 17	< 35	< 48	< 65
-1	17-18	35-40	48-54	65-75
-2	19-20	41-46	55-60	76-90
-3	20-21	47-52	61-72	91-105
-4	22-25	53-59	73-84	106-120
-6	> 25	> 59	> 84	> 120

Data quality points (DQP)

An example. The effect of deviation from dairy milk (4 months average) on data quality points.

Milk recording milk
100 x -----
(Dairy milk + Farm usage)

DQP	Deviation from dairy milk (4 mo)
-10	< 90
-5	90 – 92
-2	93 – 95
0	96 – 104
-2	105 – 107
-5	108 – 110
-10	> 110

DQP from one recording on an example farm.

Ex. 1

	DQP = 3 (= 10 – 7)	
Recorder	0	B
Recording interval	0	28 days
No of recordings, 12 mo.	0	12
Sampling interval	0	64 days
No of samplings, 12 mo.	0	6
Meter testing	-1	405 days
Dairy deviation, milk, 4 mo.	-5	108
Dairy deviation, fat, 4 mo.	0	-0.13
Farm usage	-1	0 l/cow/d

DQP from one recording on an example farm

Ex. 2

	DQP = 10 (= 10 + 5 - 4)	
Recorder	5	C
Recording interval	0	28 days
No of recordings, 12 mo.	0	12
Sampling interval	0	59 days
No of samplings, 12 mo.	0	6
Meter testing	-1	380 days
Dairy deviation, milk, 4 mo.	-2	107
Dairy deviation, fat, 4 mo.	0	0,14
Farm usage	-1	2.8 l/cow/d

DQP's for the whole year, an example

Recording day: 22.5.2014

DQP for one recording: -9

- recorder 0
- recording interval 0
- no of recordings, 12mo 0
- sampling interval -6
- no of samplings, 12mo -6
- meter testing 0
- dairy deviation, milk -1
- dairy deviation, fat -5
- farm usage -1

**12 months average
in May = -1.5**

Recording day	DQP
22.06.2013	0
24.07.2013	1
22.08.2013	4
25.09.2013	3
23.10.2013	2
25.11.2013	3
27.12.2013	0
23.01.2014	-2
26.02.2014	-5
24.03.2014	-7
21.04.2014	-8
22.05.2014	-9

Introduction of DQP's in Finland

Test groups have given positive feedback

- farmers, advisors and partners
- continuous monitoring of quality
- simple to implement
- less unnecessary and unpleasant work
- from "punishment" to improvement
- scale is motivating (school: 4 – 10)

Introduction of DQP's in Finland

Timetable of introduction

Computing of DQP's - Summer 2014

Advisor tool – Autumn 2014

Farmers tool – January 2015

