From science to practice – improved udder health with the German project

*milchQ* plus

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Milk recording in Germany

2003:
- 3.6 million cows
- 76,600 dairy farms
- 47 cows/ herd
- 7,355 kg milk

2013:
- 3.6 million cows milk recorded (4.2 million in total)
- 53,000 dairy farms (80,000 in total)
- 69 cows/ herd
- 8,221 kg milk/cow/year

Somatic Cell Count
(* 1000/ml)

170 180 190 200 210
Dairy farming in Germany

2013:
- Productive life span: 36.6 months – too short
- 21-25% of cows reach fourth lactation – too few
- Udder diseases: second most common reason for culling (14.3%) – too high

2007:
- Clinical mastitis: every second cow affected once per lactation – too many
milchQplus: national programme

- DLQ: We need an overall strategy to improve udder health
  - sustainably
  - on a national level

- May 2012 – December 2015
- Budget: 1.4 million Euros
- Funding:
  - public funding (Federal Ministry of Food and Agriculture)
  - DLQ member organisations
Project partners & network

- German Association for Performance and Quality Testing (DLQ), Bonn
- Microbiology Group, University of Applied Sciences and Arts, Hannover

12 milk recording organisations
2 associations for raw milk testing
1 IT solutions for animal production

53,000 dairy farms
Aims & Contents
Mastitis: Multifactorial Disease

Reduce complexity by a well structured approach!
Search for farm specific udder health bottleneck(s)!
Three Main Objectives

Objective 1
Establishing key figures for udder health using Dairy Herd Improvement (DHI) data

Objective 2
Identifying dairy cattle with incurable chronic mastitis by DSCC

Objective 3
Improving communication between stakeholder
Objective 1: 
Key Figures
Aims

- Continuous monitoring of udder health at **herd level**
  - **Early warning system**
  - **Prevention** instead of treatment
- Objectively measurable figures instead of gut feeling
- Control of measures
- Goal setting
- Part of **strategic optimisation** of udder health

Approach

- All key figures calculated from SCC results of the individual cows at the monthly herd test
- Supplied monthly on paper and/or online as part of the established herd test report
  - 53,000 farms = 86% of German dairy cows
Lactation

(1) Proportion of cows with healthy udders

(2) Rate of chronically diseased cows with poor cure prospects

(3) Rate of newly diseased animals during lactation

Dry period

(4) New infection rate in the dry period

(5) Cure rate in the dry period

(6) Rate of heifer mastitis
(2) Proportion of chronically diseased animals with poor cure prospects

**Definition**
Proportion of animals with > 700,000 somatic cells/ml each in the last three milk recordings of all currently lactating animals.

*Average* = 5%
Top ≤ 1%
Benchmarking

Benchmarking figures
- Calculated from top 25% farms
- For each key figure
- On a regional basis
- Updated at least monthly

Aim
- Comparison to see
  - Where do I stand?
  - What do top farms achieve?
  - Motivation to improve udder health on own farm
Objective 3: Improved Communication
Communication

- Communication between stakeholders on farm
  - Key to bring udder health forward

- Interviews across Germany with
  - Farmers
  - Veterinarians
  - Consultants

- Workshops for consultants and milk recording personnel
  - Technical expertise (key figures)
  - General communication skills

What motivates farmers?
What are the risk factors for udder health?
Thank you!

www.milchQplus.de

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by decision of the German Bundestag