Q Check

Supporting German dairy farmers: Establishing a monitoring system based on health key indicators extracted from existing control systems

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Backgrounds

Farm's self-monitoring § 11 para 8, animal protection law

„Establishment of a national animal welfare-monitoring“

„Germany should become pioneer in animal welfare“

„Animal welfare receives a special preference“
Animal welfare is a multi-dimensional concept that comprises animal health, animal behaviour and emotional state.

(Fraser et al., 1997; Fraser, 2008)
German dairy sector

65.6 (thds.) dairy farms, 4.19 (mio.) dairy cows

100% of all dairy farms control: mandatory
85% and 88% of all dairy farms control: voluntary

Pool of potential, automatically collectable, valid indicators

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Aims

I. Support herd management

II. Development of farm's self monitoring report
   - As a service and assistance for the practice, in order to comply with the legal regulation and documentation in the context of the farm's self monitoring

III. Draft of national monitoring
   - With anonymous data
   - Contribution to objectification of animal welfare debate
   - Proactive answer to the request of the government

IV. Early detection of ketotic “at risk” cows through the implementation of new analytical methods in milk recording
Partners
Network
Choice of indicators

milk quality control

The milk recording

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Three-pillar principle
Issues

- Suitability of indicators from basic systems target & alarm values
- Verification of life reality on mass data
- Importance and relevance of animal welfare beyond the facts
Approach

Multi-stage survey with proven experts in the industry (n = 215; 40%)

Statistical review - farm classification farm≠farm

51 face-to-face interviews with stakeholders

Workshops

Delphi survey I+II

farm classification

statistical analysis

round tables

stakeholder analysis
Cows with healthy udders > 400,000 somatic cells/ml
Rate of heifer mastitis
New infection rate in the dry period
Rate of chronically diseased cows
f/p ratio ≥ 1.5 (energy deficiency)
f/p ratio < 1.0 (ruminal fermentation disorder)
Removal
Productive life time (removed cows)
Stillbirths
Mortality rate calves
Mortality rate cows

Suitability of "automated" indicator (proportion approval of all answers [%])

Delphi I+II
only Delphi I

0 20 40 60 80 100

Delphi survey
partial results

S. March & J. Brinkmann
Stakeholder survey

Associations
- Agriculture
- Veterinary medicine
- Industry

Economy
- Food retailing
- Dairy factories

Society
- Consumer protection
- Animal protection
- Church

Science
- Natural science
- Ethics

Politics
- Agriculture
- Environmental
Round tables & workshops for increased insight and understanding
Silence is silver, talk is golden
**Ketosis-tool**

**Aim**

- Expansion of milk control with early warning system for metabolic imbalances in early lactation
- Improved monitoring for predictive herd management

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**Identifying poor metabolic adaptation during early lactation in dairy cows using cluster analysis**

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Coming soon

Set of indicators + Valuation

Benchmark

Month Quarter Year
Many thanks for your attention!

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