Quality Management Systems for Dairy Farming – Opportunity and Challenges for Recording Organisations

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ICAR THE GLOBAL STANDARD FOR LIVESTOCK DATA ICAR Chile 2016

LKV AUSTRIA

Overview

- Recent developments
- Quality Labels and Recording
  - Showcase Austria
- Possible development: Animal Welfare
  - Interpretation of the Report
- Conclusions

Where do we come from?

- Milk recording as baseline for on farm decisions
  - Somatic cell count and milk quality
  - Metabolism benchmarks for feeding
  - Fertility
  - Mating and breeding
- But always as information for the farmer and advise about improvements without obligations

Quality management is an issue

- For sure the Labs (ICAR 2015)
  - 80 % of the labs own by MRO's have ISO or accreditation
  - All external labs ?/!
- For the MRO's itself (ICAR 2016)
  - 14 % ISO certificate or accreditation
  - 60 % ICAR CoQ
  - 26 % no answer/none (not important) but
  - 44% have external supervision (2015)

How can our customer get benefit from this (costs)?

- Breeding programme
  - Data evaluation is crucial for it
  - Breeding values are the only sustainable tool
  - Benefit in the long run but daily costs
- Quality evaluation within the food chain
  - 47 % of the MRO's are involved (2016)
  - How many MRO's provide SCC ?

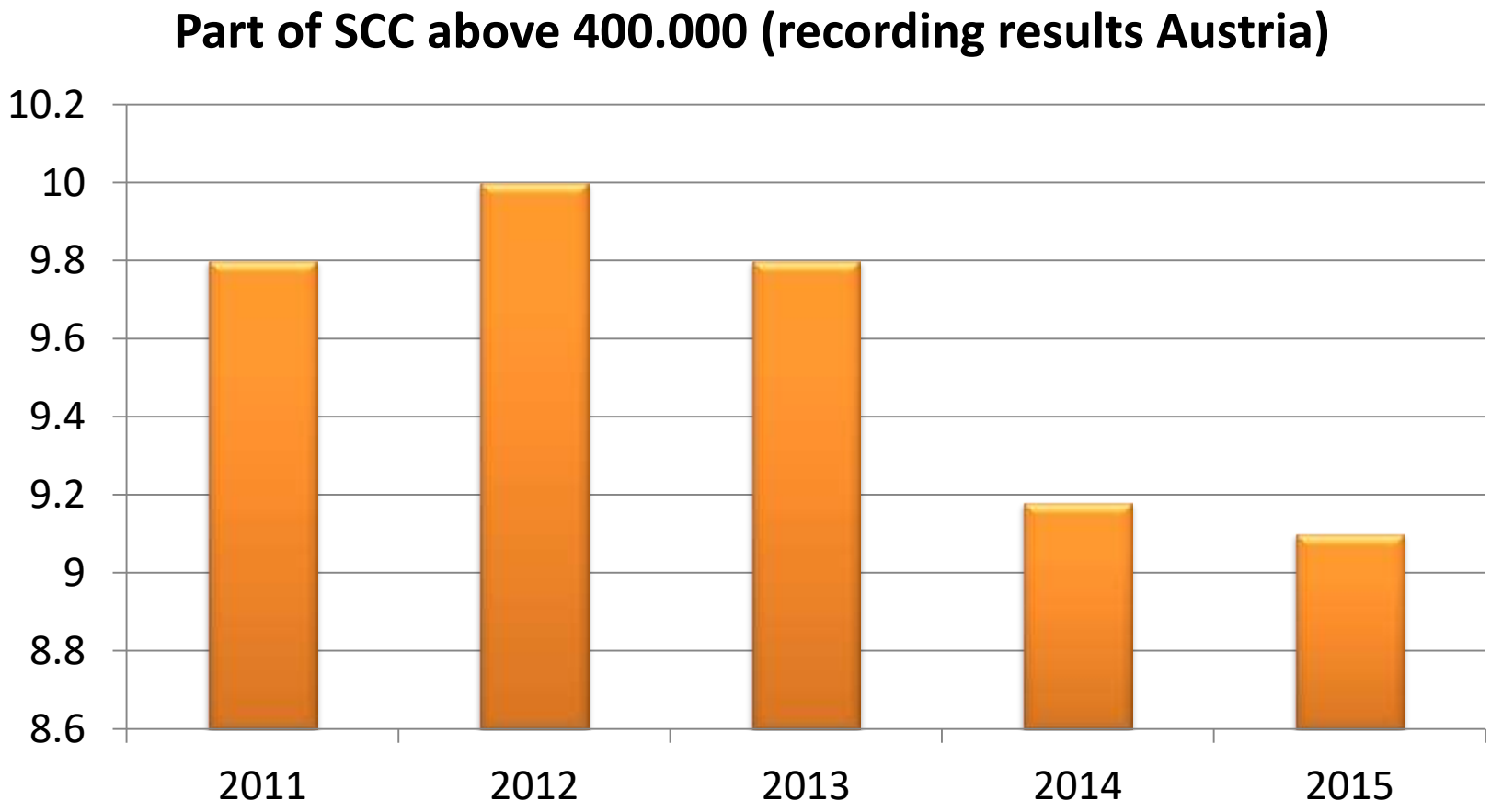
Milk quality on farm (showcase Austria 2011 – 2014)

- Milk recording connected to the in the national quality label (voluntary part)
- programme focused on milk quality in terms of SCC
- Compulsory action has to be taken if benchmark is exceeded
- Keeping the farmer in charge
- On demand documentation

Kühe mit dreimaliger Zellzahl über 400.000

2 MELODY	separiert		Schalmtest	Datum		Bakteriologische Untersuchung	Datum
AT 232.275.307	trocken		lv		rv		
	Abgang		lh		rh	Behandlung	Datum

Results of 5 years “QS MILK” in Austria



Milk recording as quality assurance within the food chain

- Crucial but successful from the Austrian point of view
  - Cooperation with dairy industry and
  - National Quality Label connected to recording
- Improving the service in milk recording
  - Recording of functional/health traits
  - early warning systems for birth difficulties
- Strong participation by the farmers
  - Traits due to the farmers self image
  - Financial incentives

Next Step (2015): Including Animal Welfare Aspects

- Birth difficulties and udder health as measurable traits
  - Cases of milk fever / downer cows
  - Cases of retained Placenta
  - Cases of mastitis
    - In terms of inflammation

- Prevention focused action plan
  - Reducing risk of anti biotic contamination for the food chain
- Traits favoured by the farmers self image and the society
- First results for this year expected

Possibilities for the future

- Using the welfare quality® protocol on animal based measures
- Evaluation of our todays reports and if necessary adding (few) new traits
  - If not yet part of the breeding program
  - Keep necessary documentation convenient
- Aim is to provide enough benefit for our customer that breeding and breeding values are a kind of a coupled product

11 OIE Principles of animal welfare and a first approach to recording

- 1st **Genetic selection** should always take into account the **health** and **welfare** of animals.

- Fitness (calving ease) and health traits (mastitis) can be recorded and evaluated in breeding values.
- Management use of the records will secure improvement.
- The recording database can provide actual status and benchmarks

2nd OIE Principle of animal welfare and a first approach to recording

- Animals chosen for introduction into **new environments** should be suited to the local **climate** and able to adapt to **local diseases, parasites and nutrition**.

Recording results as measure for

- Adaption
- Nutrition,
- Parasites and diseases (symptoms) and impact on the animal's performance like fertility or longevity.

3rd OIE Principle of animal welfare and a first approach to recording

- The physical environ-ment, including the substrate (**walking** surface, **resting** surface, etc.), should be suited to the species so as to **minimise risk of injury** and transmission of **diseases** or **parasites** to animals.

- Lameness and claw health as benchmarks for the walking surface
- The importance of cleanliness and hygienic state of the resting surface
  -> e.g. advise if an increased somatic cell count occurs.

4th OIE Principle of animal welfare and a first approach to recording

- The physical environment should allow **comfortable** resting, safe and comfortable movement including normal postural changes, and the opportunity to perform types of natural behaviour that animals are motivated to perform.

- Management need
- Noticeable heat behavior
- Impact on fertility.

5th OIE Principle of animal welfare and a first approach to recording

- Social grouping of animals should be managed to allow **positive social behavior** and minimise injury, distress and chronic fear.

- Research needed to
  - identify and
  - decide about

  recordable traits and a possible implementation

6th OIE Principle of animal welfare and a first approach to recording

- For housed animals, **air quality, temperature and humidity** should support good animal health and not cause adverse effects. Where extreme conditions occur, animals should not be prevented from using their natural methods of thermoregulation.

- Performance requires good conditions
- Summer heat and winter cold have impact on housing conditions.
- Construction and
- Advisory services in favour

7th OIE Principle of animal welfare and a first approach to recording

- Animals should have access to **sufficient feed and water** appropriate to their age and needs in order to maintain normal health and productivity and to prevent prolonged hunger, thirst, malnutrition and dehydration.

- Any unusual change in milk performance might indicate
- Poor water or feed access or quality.
- Body condition scores added to the recorded traits for a sophisticated monitoring.

8th OIE Principle of animal welfare and a first approach to recording

- **Diseases and parasites** should be prevented and controlled as much as possible through good management practices. Animals with serious health problems should be isolated and treated promptly or killed humanely if treatment is not feasible or recovery is unlikely.

- Recording and reporting of health traits for monitoring.
- Veterinary and advisory services to improve the situation.

9th OIE Principle of animal welfare and a first approach to recording

- Where painful procedures cannot be avoided, the resulting **pain** should be managed to the extent that available methods allow.
- Advisory and veterinary services in combination with responsible breeding aims.

10th OIE Principle of animal welfare and a first approach to recording

- The **handling** of animals should foster a positive relationship between humans and animals and should not cause injury, panic, lasting fear or avoidable stress.

- Recording of behavior traits for temperament and docility
- Training and advisory
- Risk reduction for both
  - Farmer
  - animals

11th OIE Principle of animal welfare and a first approach to recording

- Owners and handlers should have **sufficient skill and knowledge** to ensure that animals are treated in accordance with these principles.

- Interpretative assistance on reports or web and smartphone apps
- Improve knowledge and skills

Conclusions

- Recording as tool for improving quality
  - Benchmarks as trigger for
    - Advise, early warning and
    - Documentation of actions if exceeded
- MR customers have animal based measures for animal care
- Food quality improvement based on management use of recording results grows

Conclusions

- Supporting our customers in their quality policy
- Fitness, health and quality traits can be transformed into breeding values for long term success
- Cooperation between food industry and MRO
  - Helps the farmer to earn his living
  - Improves the visibility of recording and ICAR
- ICAR and IDF as supra national expertise for Animal Care

Thank you for your attention