Establishing a health monitoring system for cattle in Austria

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Overview

- Background
- Aims
- Data recording
- Genetic evaluation
- Health reports
- Project organisation
- Benefits
- Conclusions

Project history

From the idea to implementation

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<th>May 05</th>
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<th>Feb/Mar. 06</th>
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<td>Idea regional project</td>
<td>ZAR: Austrian wide project</td>
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<td>Support of partners and elaboration of project</td>
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<td>Agreement of funding</td>
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Background

- Functional traits are becoming increasingly important due to pressure on production prices.
- Increasing herd sizes demand for efficient cattle without problems and good health.
- Growing demands for consumer acceptance and confidence.

Breeding goal

(Austrian Simmental)

No diagnostic data have been included within the fitness traits so far.

Documentation of diagnostic data

Starting point

- There is the obligation by law (law of drug control) that diagnoses and treatments have to be documented in Austria. These documents have to be kept for 5 years by veterinarians and farmers.
- The diagnoses have not been standardised.
- Those data have neither been collected nor stored in a database.

Presently no diagnostic data are available for use in breeding and herd management in Austria.
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Project aims

- System to record diagnostic data
  - Improve health by breeding
  - Improve health by herd management
  - Breeding value estimation
  - Health reports farmers
  - Health reports veterinarians

Target group
Who can participate?

- Austrian wide project
- Voluntary participation
- Open to all cattle under performance recording (also juvenile)
- Membership in Animal Health Organisation is advantageous, but not precondition
- Vision for the future: open for all cattle holders

Recording of data and backflow of information

- Treatment by the veterinarian
- Receipt for the application of drugs (law of drug control)
- Standardisation of the diagnoses
- Recording into the central cattle database
- Health report
- Genetic evaluation for health traits

New receipt for the application of drugs
Austrian wide key

Standardisation of diagnoses
Data recording and data storage

**What is recorded?**
- Identity of the animal
- Identity of the farm
- Number of the veterinarian
- Diagnoses and date of diagnoses from first treatments only

**Where is it stored?**
In the central cattle database

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Data protection

**Declaration of consent for**
- recording of data
- transferring data to the veterinarians.

*With the declaration of consent and the law of data protection data security is warranted.*

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Breeding for animal health

**Steps in breeding**

- Breeding goal
- Performance recording
- Genetic evaluation
- Breeding programme
- Genetic response

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Breeding for animal health

**Planned measures**

- **Aim:** Breeding values for health traits for bulls
  - Data quality and data validation.
  - Study of trait definition.
  - Analyses of environmental effects and estimation of genetic parameters for main breeds.
  - Estimation of economic weights.
  - Elaboration of routine genetic evaluation for health traits.
  - Analyses concerning requirements of breeding programmes.

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Health reports for herd management

- Provision of health reports with already existing data from performance recording as well as diagnostic data.
  - **Daily report:** e.g. action lists
  - **Annual report:** gives overview about health status of herd

- Future plan to include data from slaughtering houses, milk laboratories as well as hoof trimming.
Presently no information based on individual diagnostic data nor data from performance recording are available for consultancy of farmers on animal health and herd management.

Comprehensive health reports with information from performance recording and diagnoses will be available.

Health reports are valuable for Animal Health Organisations to consult farmers.

**Overview**

- Background
- Aims
- Data recording
- Genetic evaluation
- Health reports

**Project organisation**

**Benefits**

- **Farmer**: Improved breeding values for bulls and health reports for the optimisation of herd management. Higher economic efficiency.
- **Veterinarians**: Health reports for consultancy of farmers in disease avoidance. Valuable tool for auditing.
- **Cattle breeding**: Contribution to further positioning of the Austrian cattle breeding with high emphasis on functional traits.
- **Consumer**: On the long term an increase in consumer safety is expected.

**Project partners:**
- Animal Health Organisations
- Chamber of Agriculture
- Chamber of Veterinarians
- Ministry of Agriculture, Forestry, Environment and Water management
- Ministry of Health and Women
- University of Natural Resources and Applied Life Sciences
- University of Veterinary Sciences
- ZuchtData EDV-Dienstleistungen GmbH

**Project executing organisation:**
- Federation of Austrian Cattle Breeders with member organisations from breeding, performance recording and artificial insemination.

**Project management:**
- Committee with representatives of different groups.

**Benefits**

- **Farmer**: Improved breeding values for bulls and health reports for the optimisation of herd management. Higher economic efficiency.
- **Veterinarians**: Health reports for consultancy of farmers in disease avoidance. Valuable tool for auditing.
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**Key factors for success**

**Collaboration of farmers and veterinarians essential**

- **High participation:**
  - **Genetic evaluation**: reliable breeding values will only be enabled by high participation of farmers and veterinarians – base for genetic response.
  - **Health reports**: For the explanatory power of key figures from health reports a wide participation is important.

- **Good data quality:**
  - Awareness and monitoring of data quality is important.

**Conclusions**

- Consideration of health traits has the chance of success (e.g. Skandinavian countries).
- Difficult project – needs the full support of farmers, veterinarians and their organisations and representatives.
- Key factor for success is a good data quality: cooperation with performance recording organisations is very valuable.
- Success only possible in cooperation with partners from cattle breeding, performance recording, veterinarians, science and the support by the Ministries.
Acknowledgement
The Federation of Austrian Cattle Breeders thanks

- the Ministry of Agriculture, Forestry, Environment and Water management and the Ministry of Health and Women as well as the Federal States for their financial support.
- the partner organisations for their good cooperation and their valuable advise.
- The colleagues from other countries for their advise and sharing of experiences.

Success in the future – cattle with good yield and good health!